

# NURSING EDUCATION RESEARCH CONFERENCE

# 2018

Washington, DC

April 19-21, 2018

Washington Marriott Wardman Park



NLN

National League  
for Nursing

# 2018

## NURSING EDUCATION RESEARCH CONFERENCE

CONFERENCE PROCEEDINGS

ENHANCED ABSTRACTS OF ORAL AND POSTER  
PRESENTATIONS

WASHINGTON, DC | APRIL 19-21, 2018



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The Sigma Theta Tau International Honor Society of Nursing (Sigma) is a nonprofit organization whose mission is advancing world health and celebrating nursing excellence in scholarship, leadership, and service. Founded in 1922, Sigma has more than 135,000 active members in over 90 countries and territories. Members include practicing nurses, instructors, researchers, policymakers, entrepreneurs, and others. Sigma's more than 530 chapters are located at more than 700 institutions of higher education throughout Armenia, Australia, Botswana, Brazil, Canada, Colombia, England, Ghana, Hong Kong, Japan, Jordan, Kenya, Lebanon, Malawi, Mexico, the Netherlands, Pakistan, Philippines, Portugal, Singapore, South Africa, South Korea, Swaziland, Sweden, Taiwan, Tanzania, Thailand, the United States, and Wales. Learn more at [www.sigmanursing.org](http://www.sigmanursing.org).

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# Glossary

A **plenary session** is a session in which an invited speaker, usually with a significant subject matter, presents their work or viewpoint. All attendees attend these general sessions as they usually begin and end a program of events. Plenary sessions vary in length from one (1) hour to one and a half (1½) hours and can be accompanied by PowerPoint presentations, audio and/or video files and other visual aids.

An **oral presentation** is a brief 15-20 minute individual presentation time moderated by a volunteer. An effective oral presentation should have an introduction, main body and conclusion like a short paper and should utilize visual aids such as a PowerPoint presentation. Oral presentations are divided into different categories based on the program presented. Categories can include: clinical, leadership, scientific, evidence-based practice, or research.

A **poster presentation** is the presentation of research information by an individual or representatives of research teams at a conference with an academic or professional focus. The work is peer-reviewed and presented on a large, usually printed placard, bill or announcement, often illustrated, that is posted to publicize. Exceptions to peer-reviewed posters include Rising Stars student posters and Sigma Theta Tau International's Leadership Institute participant posters.

A **symposium** is a presentation coordinated by an organizer similar to a panel discussion and contains at least three (3) presentations concerning a common topic of interest. Each symposium session is scheduled for 45-75 minutes and allows for questions at the end of the session. Symposia provide an opportunity to present research on one topic, often from multiple perspectives, providing a coherent set of papers for discussion.

A **peer-reviewed paper** is simply an individual abstract that has been reviewed by at least three (3) peer-reviewers to determine the eligibility of the submission to be presented during a program. The determination is made by the peer-reviewer answering a series of regarding the substance of the abstract and the materials submitted. Scores from each reviewer are compiled. The average score must be 3.00 on a 5-point Likert scale in order to qualify for presentation. Sigma Theta Tau International enforces a blind peer-review process, which means that the reviewers do not see the name or institution of the authors submitting the work. All submissions, with the exception of special sessions and invited posters are peer-reviewed.

An **invited or special session** is similar to a symposium in the length of time allotted for presentation, but is not peer-reviewed. These sessions focus on a specific area, but are conducted by individuals invited to present the work.

# Introduction

Sigma Theta Tau International Honor Society of Nursing (Sigma) and the National League for Nursing (NLN) conducted the 2018 Nursing Education Research Conference in Washington, DC, April 19-21, with the theme of *Generating and Translating Evidence for Teaching Practice*, with 375 attendees.

## Program outcomes:

- Translate research outcomes into educational practice and policy.
- Share research findings that impact learner preparation.

These conference proceedings are a collection of abstracts submitted by the authors and presented at the research congress. To promptly disseminate the information and ideas, participants submitted descriptive information and abstracts of between 300 and 1500 words. Each oral and poster presentation abstract was peer-reviewed in a double-blind process in which three scholars used specific scoring criteria to judge the abstracts in accordance with the requirements of Sigma's Guidelines for Electronic Abstract Submission.

The opinions, advice, and information contained in this publication do not necessarily reflect the views or policies of STTI or its members. The enhanced abstracts provided in these proceedings were taken directly from authors' submissions, without alteration. While all due care was taken in the compilation of these proceedings, STTI does not warrant that the information is free from errors or omission, or accept any liability in relation to the quality, accuracy, and currency of the information.

## Format for Citing Papers

Author. (Year). Title of paper. In *Title of conference proceedings* (page numbers). Place of publication: Publisher.

### Example:

Smith, C. C. (2015). Nursing Research and Global Impact. In *Engaging Colleagues: Improving Global Health Outcomes: Proceedings of the 25th International Nursing Research Congress* (pp. xxx-xxx). Indianapolis, IN: Sigma Theta Tau International.

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Cultivating a Culture of Resilience: A Nursing Leadership Initiative

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Active Learning: A Concept Analysis

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Developing Critical Thinkers Through the Use of A.V.I.D. Discussions

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The Effect of Virtual Clinical Simulation Debriefing on Clinical Decision Making

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Low Literacy Breast Cancer Educational Module: A Collaborative Project

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The Effect of Root Cause Analysis on Safe Medication Administration

# **Nursing Education Research Conference 2018 (NERC18) Abstracts**

**Plenary Sessions**

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# PLN1 - OPENING PLENARY: Empirical Analysis of Faculty-To-Faculty Incivility: Implementing Best Practices to Foster Civility and Healthy Academic Work Environments

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Cynthia Clark, PhD, RN, ANEF, FAAN, USA

## Abstract

### Setting the Stage:

- Background and Overview: Contextualizing incivility in nursing education
- Previous studies
- Concept Analysis and Conceptual Model for Fostering Civility in Nursing Education

Mixed Methods instrument developed and tested: Instrument has been used in 34 studies to date (including replication and intervention studies); Highly reliable instrument— secondary purpose; test the Conceptual Model for Fostering Civility in Nursing Education

### Present results and findings from the initial and subsequent studies:

Academic incivility can negatively impact individuals, teams, and organizations; cause physical, psychological, and emotional harm; and seriously disrupt relationships and the teaching-learning environment. Dr. Clark presents findings from empirical studies regarding faculty-to-faculty incivility and offers best practices to foster and sustain civility, collegiality, and healthy academic work environments. Attendees will explore 1) examples of faculty incivility, 2) contributing factors, and 3) evidence-based strategies to build positive relationships; promote collegial workplaces; and enhance faculty well-being and career satisfaction.

### National Study on Faculty-to-Faculty Incivility

MIXED METHODS STUDY: 588 Nursing Faculty from 40 States

### Quantitative Results

67.4% report F-F Incivility as a Moderate to Serious Problem

78.5% report that they avoid addressing incivility related to:

- Fear of retaliation
- Lack of administrator support
- No clear policies to address incivility
- It takes too much time and effort
- Lack of skill to address incivility
- Makes matters worse
- Feel powerless (new, non-tenured, adjunct, clinical faculty)
- Want to be liked—don't rock the boat

### Most frequently occurring uncivil faculty behaviors:

- Resisting change or unwilling to negotiate
- Consistently failing to perform one's share of the workload
- Distracting others while using media devices during meetings
- Refusing to listen or openly communicate on work-related issues
- Making rude remarks and putdowns towards others

### Top factors that contribute to faculty incivility

- Stress
- Demanding workloads
- Unclear roles and expectations
- Imbalance of power
- Volatile or stressful organizational conditions

Level of confidence in addressing incivility, and ways to address the problem.

### Qualitative Findings (8 Themes)

1. Berating, insulting, and allowing [incivility]
2. Setting up, undermining, and subverting
3. Power playing, derailing, disgracing
4. Excluding, gossiping, and degrading

5. Refusing, not doing, and justifying
6. Blaming and accusing
7. Taking credit [ripping off] others' work
8. Distracting and disrupting during meetings

Discuss best practices to foster civility and healthy work environments

- Organizational and leadership support
- Assembling an Organizational Design (Civility) Team
- Measuring/assessing work environments
- Developing and implementing a sustainable 'Action Plan' including:
  - Foundational Statements and Documents
  - Civility Pledge/Team Charter/Co-creating Norms
  - Guidelines and Policies
  - Hiring for Civility
  - Restorative Justice
  - Effective Communication and Constructive Conflict Negotiation

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## Special Sessions

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## A 12 - SPECIAL SESSION: Generating Simulation Evidence

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Bette A. Mariani, PhD, RN, ANEF, USA

### Abstract

While there is an abundance of evidence in the literature supporting simulation as an effective strategy for teaching and learning in nursing education, much of the research has measured satisfaction, self-confidence, and self-efficacy (Mariani & Doolen, 2016). While nursing education and the pedagogy of simulation is moving towards more rigorous studies that measure more critical outcomes such as, student learning, patient safety, clinical judgement, and patient outcomes, a gap in the literature still exists. There is no doubt that challenges exist in conducting studies that can provide strong evidence in both the academic and clinical settings. And while these challenges exist, it remains critical that researchers adhere to the foundations of a well-conducted simulation study to generate the necessary evidence to advance the science of simulation and nursing education. A well-designed simulation study should be conducted within the context of a theoretical or contextual framework, with an eye for how the study can continue to contribute to building the knowledge or theory behind the science. Adhering to the International Nursing Association for Clinical Simulation and Learning Standards<sup>SM</sup> (INACSL, 2016) is critical when conducting simulation research; it helps to provide structure for the study, and offers the opportunity for replication in other settings. As with all studies, a rigorous methodology and valid and reliable instruments are the foundation to a well-designed study. Nursing programs faced with increasing challenges of clinical placements and faculty shortages are turning more and more to simulation as a method of clinical education. Studies such as the National Council of State Boards of Nursing (NCSBN) (Hayden et al., 2014) provide strong evidence for using simulation for student learning, with positive outcomes on NCLEX, as well. Nurse faculty and researchers need to continue to add to this body of evidence through rigorous, multi-site intervention studies that can demonstrate the outcomes of simulation on quality patient outcomes in a variety of settings. This can only be accomplished with well-designed studies that adhere to sound methodology, standards of best practice, and teamwork and collaboration.

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## **B 11 – SPECIAL SESSION: Maximizing Undergraduate Research Outcomes Through Honors Education: A Win-Win for Faculty and Student Development**

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*Jennifer Wilson, DNP, RN, CPN, USA*

### Abstract

Nursing honors programs provide faculty an excellent forum for developing and cultivating the next generation of nurse leaders, researchers, and scholars. In addition, with the guidance of faculty mentors, they equip nursing students with an early foundation for advanced practice. They allow high-achieving students to gain early exposure to the roles and skills necessary to navigate contemporary healthcare challenges and to advance the nursing profession through research, in alignment with recommendations outlined in the Institute of Medicine's Future of Nursing Report. Nursing honors education also provides faculty with the opportunity to implement innovative ideas they have always wanted to try, but do not fit within the traditional nursing curriculum. When approached strategically, these programs provide a structure for developing faculty and students, cultivating academic-clinical research partnership, increasing productivity, and improving faculty satisfaction.

The challenges associated with effective nursing honors education, however, are complex, multifaceted, and widespread. A paucity of literature leaves leaders with limited guidance for developing or sustaining high-quality programs. In addition, nursing honors programs in the United States operate largely in silos, with few formal opportunities designated specifically for strategic collaboration among program leaders, which could significantly increase program success and scope of impact. While some programs thrive, many nursing honors programs struggle with sustainability.

This presentation will share strategies employed by a Scholar participating in the Sigma Theta Tau International (STTI) Experienced Nurse Faculty Leadership Academy (ENFLA) to strategically transform a nursing honors program to promote sustainability, increase productivity, cultivate new research opportunities, and develop a team of nursing honors faculty. The nursing honors program highlighted, located in the southwest region of the United States, experienced rapid and significant expansion in student numbers over a three-year period, accompanied by an increase in the depth, breadth, rigor, and quality of honors work and requirements. As the program thrived and yielded meaningful outcomes, with tangible benefits to students, faculty, the University, the College of Nursing, and to community partners, university leaders and administrators recognized the value of continued investment in the program. However, as resources in higher education became increasingly competitive, resource allocation failed to keep pace with the program's growth, thereby jeopardizing program sustainability and research productivity.

This purpose of this Scholar's ENFLA project was to develop a plan for sustaining the existing nursing honors program across the university's three campuses, and developing a team of talented faculty who were new to honors education. Current best practices in nursing honors education served as the foundation for the project's strategic imperatives. Preliminary initiatives included a comprehensive review of the literature, a contextual evaluation of the existing honors program, and alignment of the program's mission, vision, and values with the University Honors Scholar Program, the College of Nursing, and the university at large. The data from these activities provided a foundation for securing the buy-in from key program stakeholders. These preliminary processes also provided valuable insight into the benefit and plethora of potential opportunities for faculty to thrive professionally and increase scholarly productivity through active engagement in honors education. Therefore, the project approached program sustainability from the perspective of faculty empowerment, which served as a primary foundational principle threaded into the project's initiatives.

The success of strategic initiatives to promote sustainability relied on assembling and coalescing a team of nursing faculty across campuses. Early project activities provided clarity that the nursing honors program's sustainability relied on significant changes in the areas of faculty workload structure and recognition, ongoing faculty development, exploration of program funding sources, and the development of a new nursing honors curriculum that integrates research and leadership into each course. Specific program initiatives sought to promote efficient utilization of resources, increase productivity, and to yield increased mutually beneficial outcomes.

ENFLA project outcomes brought university recognition to the College of Nursing as successful strategic initiatives were adopted and integrated into the university's honors scholar program. The project's key concepts, strategies for promoting sustainability, project outcomes, and recommendations for other honors leaders are described. Looking to the future and ideas for strengthening nursing honors education are addressed, including the development of collaborative initiatives that provide resources and a supportive network to empower nursing honors faculty and students to maximize their leadership and research potential.

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## D 12 - SPECIAL SESSION: Design-Based Educational Research in Nursing

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Anne M. Krouse, PhD, MBA, RN-BC, RN-BC, USA

### Abstract

Advancing the science of nursing education requires a commitment to creating evidence-based educational interventions. Currently, there is limited empirical evidence regarding the efficacy of educational interventions, particularly those that are able to be tested in an iterative way. To increase the rigor of nursing education research, design must be a consideration in the initial phases of study development. Design-based research can be used to generate theoretical evidence both through the intervention as well as on the intervention, both testing the theory and refining the intervention. Consideration of context is important in educational research as it is translated to practice. Using design, contextual variables that may affect outcomes and be considered, empirically tested, and refined through iterative testing. Researchers may choose to use design-based research for the purposes of development, validation, and effectiveness. Development studies are those where the goal is the production of an intervention and design theory related to that intervention. Validation studies test and generate theories. Effectiveness studies examine student outcomes related to an intervention. Good design-based research must have the following characteristics: 1) the goals of theory development and design are intertwined; 2) iterative cycles of design, enactment, analysis, and redesign must be embedded; 3) research outcomes must be disseminated to those in practice; 4) accounting for how the design functions in practice related to contextual issues; and 5) methods to document and connect the processes within the intervention to the outcome. To design the intervention, one must look to instructional design principles which are rooted in Behaviorism and General Systems theory, seeking a response from a learner given a set of learning conditions. The iterative steps of design-based research in education include analysis, design, and evaluation with a dual focus on theory and practice, integrated research and design processes, and theoretical and practical outcomes.

Educational outcomes reported in the nursing literature are often not well connected to the design of the intervention which limits its usefulness in other environments with different contextual variables. Additionally, most nursing education intervention research is limited to single site and single sample which limits the robustness and generalizability of their findings. In order to advance the science of nursing education, nurse researchers must consider the theoretically driven design of educational interventions which are able to be replicated and refined in an iterative way that informs both nursing education practice as well and the science of nursing education. Context plays an important role in the outcomes of any educational intervention. Therefore, those individuals applying the intervention in the learning environment must play a role in the design and refinement of that intervention.

Nursing education researchers should look to the principles of instructional design to develop a robust educational intervention. Guided by theory to explain the how and why of the design, the ADDIE (analysis, design, development, implementation, and evaluation) model of instructional design can provide guidance in the development of the intervention. Analysis includes problem identification and setting learning goals. During the design phase, measurable learning objectives are developed as well as the classification of the type of learning and learning activities. This is followed by the development and implementation of the design. Formative and summative evaluation then contributes to the iterative cycle of refinement and testing of the intervention.

The inclusion of design-based research principles in nursing education research can significantly increase the strength of the evidence if carefully considered as an integral part of the study design. Researchers in nursing education must partner with colleagues in practice to ensure that the design is clear, can be repeated, and is context-dependent. Careful attention to this will create opportunities to increase the reliability of the evidence generated from these studies.

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## E 01 and G 11 - SPECIAL SESSION: Nursing Education Research: Global Impact Through an Open Access Platform

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Kimberly Thompson, MLS, USA

### Abstract

What are you waiting for? Have you written research, research-based, educational documents (for students, CE courses, patients, or a community), and/or other evidence-based practice materials that are not a good fit for traditional scholarly and scientific journals, but are otherwise based on sound principals? Do you want credit for all your work and not just a few select published manuscripts? Lucky you! The Honor Society of Nursing, Sigma Theta Tau International (Sigma) via its free resource, the Virginia Henderson Global Nursing e-Repository (the Henderson Repository), accepts the following types of documents and more: reports, white papers, faculty created learning objects, dissertations, theses, capstone projects, best practice guidelines, quality improvement tools, surveys, measurements, patient education tools, unpublished manuscripts, and certain published articles. The Henderson Repository has the capability to accept these materials as text-based documents, audio files, still images, and even videos! A variety of formats are accepted: posters, presentation slides, handouts, pamphlets, brochures, reports.

Let the Henderson Repository be the solution for all of your dissemination needs! The repository features an open peer-review component for works submitted to any of the collections under the Independent Submissions community. All other submissions are evaluated or assessed according to community standards prior to posting. There are a number of ways to participate as individuals nurses, students, and groups (i.e., national and international nursing organizations, hospitals, healthcare systems, nursing consortia, and health-related businesses that employ nurses).

Come to this session to learn more about this unique digital venue. The purpose of this session is to inform nurses in all areas of the profession (nurse leaders, faculty members, researchers, clinicians, and nursing students) about the Henderson Repository's mission, the participation options, and the benefits to submitting authors and groups.

Once fully populated with full-text items, it will become a global resource for nursing research and evidence-based practice materials.

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## E 12 - SPECIAL SESSION: Clarifying the Review Conundrum: Literature, Integrative, Systematic, Scoping

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Kim Alexander Noble, PhD, RN, ACCNS-AG, CPAN, USA

### Abstract

**Background:** The explosion of Evidence based practice in nursing has triggered variation in author literature review approaches and nomenclature. Example terms used to describe review methodology include comprehensive, systematic, critical, integrated, narrative, scoping and rapid realist. The evolution of diversity in literature review is based in differences in approach and application of process, causing confusion. A review may be foundational and be used to provide a basis for merging or deconstructing what is known to create a new application of research findings. The review may identify gap(s) in empirical findings to guide researchers to new evidence generation. Reviews can be used to synthesize findings to translate evidence to clinical practice, such as interdisciplinary guidelines. Additionally, the literature review can provide a critical summary of what is known as background for novel approaches. The object of this presentation is to 1) discuss the global approach of literature review; 2) compare/contrast forms of review based on approach and outcome; and 3) apply understanding of differences to exemplar publications.

**Methods:** This presenter will use examples of review strategies that are matched to purpose and outcome. Includes will be positive and negative aspects of each approach and the rationale for use. A description of the Joanna Briggs Institute (JBI) Comprehensive Systematic Literature Review (CSLR) methodology will be provided as an exemplar for methodological guidance for conducting systematic review and meta-analysis.

**Results:** Nurse educators are challenged to assist student understanding and utilization of research findings at both graduate and undergraduate levels. This educational priority is difficult as it requires the educator to impart a love of research synthesis and translation to students. An understanding of research is frequently not an adequate motivator for student mastery; the educator must understand research components, the literature review description and make the case for the application of this information to the patient's bedside for the student. The literature review sets the stage for student understanding of the research results. The nurse educator must assist the student to deconstruct the research, evaluate design and methodology, and then reassemble understanding with the interpretation to the patient.

**Conclusion:** The literature review will have different structure and components which dovetail to the research methodology and outcome. The review provides a great contribution to research understanding and translation to practice. A global understanding of the structure and purpose of the review is fundamental to nurse educators to transformation research to bedside practice to ensure nursing practice that is current and empirically based.

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## F 12 - SPECIAL SESSION: Planning and Thinking Innovatively: Where to Start Your Nursing Education Research

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Angela McNelis, PhD, RN, FAAN, CNE, ANEF, USA

### Abstract

Launching a program of research in nursing education requires extensive knowledge and determination. Establishing a research trajectory is often required for promotion and/or tenure, however, it is absolutely required if your goal is to contribute to the state of the science in nursing education. Your program of research should be a systematic, planned series of studies that address a focus area or gap in the science. Construct your plan with the intent to conduct sequential studies such that each successive study builds on your own and others' prior work in a meaningful way to advance the state of the science in nursing. Therefore, it is vital that what you choose is something you are passionate about and will sustain your research trajectory. As you develop these ideas, keep in mind the ethical and financial implications of your work. Will the results from your studies be possible to implement? Will solutions derived from the evidence be workable in academic or health care settings? Your research plan needs to remain flexible and driven by the evidence generated, and not by the method (qualitative or quantitative). It is important to be open to different paths while maintaining focus on the topical area. Thus, developing an important research idea that addresses a large programmatic issue is the first and often most difficult step in the process. Content expertise, innovation, creativity, curiosity and scientific rigor are the necessary foundations on which to develop, build and sustain your program. Strong mentors and team members are also essential to your success and will help you develop your research plan. Finally, funding is necessary to support your work. Framing a compelling purpose statement that is clear, addresses a significant issue in nursing education, and aligns with organizations' funding priorities, will position you for success in securing the financial support needed in your pursuit to develop the evidentiary base in nursing education.

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## I 12 - SPECIAL SESSION: Effect Sizes in Nursing Education Research: What, Why, and How?

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### Abstract

The importance of quantitative research findings cannot be judged solely by the presence of small p-values associated with the statistical tests conducted to answer the study's research questions. In fact, with strong evidence the p-values are widely misunderstood and misused across many fields, international efforts are underway to diminish the role that p-values play in the overall evaluation of the importance of study findings. In addition to suggestions that the threshold for judging "statistical significance" be moved from its currently established (though arbitrary) position of .05 to a much lower value (e.g., .005 or even lower), there is near universal agreement that when possible, estimates of the extent of the observed effect, such as the difference between group means or a correlation coefficient, should be reported alongside p-values. A key issue is that p-values are very sensitive to sample sizes in that if a large enough sample is used, even very small, meaningless differences or associations are found to be "statistically significant" -- with no further consideration of whether the finding is clinically, educationally, or practically important. Reporting of effect sizes alongside p-values in research reports enables research consumers to make better evaluations about not only questions of the likelihood of the study's findings, but also about the magnitude of the observed effect. Though effect sizes are not widely reported in research reports at the current time, several effect size estimates are quite easy to calculate and interpret. In this session, attendees will briefly explore recent issues around the use of p-values, review several common effect sizes applicable to nursing education research, and learn how to quickly calculate effect sizes for differences between means using information directly available in most quantitative research reports. Attendees will also explore ways to calculate and include in their own research reports effect sizes for a variety of statistical tests using commonly available statistical software and tools available online.

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# Workshops

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# WKS1 - WORKSHOP 1: Intermediate Statistics and Data Analysis for Nursing Education Researchers

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## Abstract

**Background:** Just as a great deal of what nurses learned in their pre-licensure nursing education programs one, two, or three decades ago is no longer considered relevant and applicable to practice today, so too has the statistical and data analysis procedures available to nursing education researchers advanced over that same period. New statistical procedures have been developed, other procedures have fallen (sometimes strongly) out of favor, and perhaps more importantly, our understanding of the theoretical and empirical basis for many data analytic procedures has evolved and matured over time. Despite advancements in the functionality and availability of modern data analysis software, many nursing education research studies continue to rely on outdated, basic, and sometimes inaccurately applied statistical methods which limit the extent to which any study can contribute to the nursing education evidence base.

**Purpose:** The purpose of this workshop is to help current or aspiring nursing education researchers and nursing faculty interested in quantitative methods to understand several key intermediate-level statistical and data analysis procedures with a focus on selection, limitations, application, and interpretation of the selected procedures. Procedures covered in the workshop include modern methods for calculating power analysis, effect size, and confidence intervals, advanced correlation/regression, ANOVA/ANCOVA, multivariable non-parametric techniques, and longitudinal data analytic procedures.

**Methods:** The workshop format is primarily hands-on, supplemented with lecture and frequent group discussion. Participants are strongly encouraged to bring their own laptop computers with the statistical software of their choice installed. Worked examples will be presented using SPSS v. 23 and for power analysis, G\*Power (available free from <http://www.gpower.hhu.de/en.html>). Participants will be provided with sample, working datasets via USB 2.0 thumb drive (and via direct download link) on-site to use during the workshop.

**Expected Outcomes:** At the conclusion of the workshop, participants will be able to describe the appropriate uses, data requirements, limitations, and interpretations of selected intermediate-level statistical procedures covered in the workshop. Participants will gain experience conducting the analyses and interpreting the output from commonly available statistical software, and will be able to identify 2-3 resources to support use of these more advanced procedures in future research (or teaching) projects.

## References

None.

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## WKS2 - WORKSHOP 2: Becoming a Nursing Education Scholar: Reflections, Challenges, and Rewards

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*Kristina Thomas Dreifuerst, PhD, RN, CNE, ANEF, USA*

*Susan Luparell, PhD, RN, CNE, ANEF, USA*

### Abstract

There have been many calls in the literature to build the science of nursing education, yet development of a rigorous body of knowledge has been slow because of a lack of funding, a lack of institutional support for faculty research in this area, and the challenges of implementing a robust design for scientific inquiry in educational environments (Ironsides & Spurlock, 2014; Valiga & Ironsides, 2012).

A core competency for nurse educators is to engage in scholarship (Halstead, 2007). While scholarship and its components have been discussed for many years in the literature, the scholarship of teaching and learning (SoTL) is both the process and the product. Nurse faculty want to better understand how students learn and how teaching strategies can maximize student learning. Scholarship involves a deliberative process that includes original research, research that builds on previous work, and a theoretical perspective to frame the research (Kanuka, 2011). The scholarship of nurse faculty as clinical practitioners, research scientists, and educators must be focused on advancing the science of nursing and the science of nursing education.

To effectively engage in scholarship, faculty must exhibit a spirit of inquiry that embraces and demonstrates the qualities of a scholar: integrity, courage, perseverance, vitality, and creativity (Halstead, 2007, p. 144). These qualities underpin the work of nurse scientists as they conceptualize, design, and disseminate empirical studies that provide new knowledge to support the teaching and learning of students.

Nurse faculty need to use evidence to ensure that their students are successful and ready to meet the demands of the complex healthcare environment. They need to step up to the challenge by reflecting on their teaching practice and the state of the science. These faculty will need the skills to both evaluate and translate the evidence into practice.

This pre-conference panel session will showcase three exemplary nursing education scientists and their programs of research on diverse educational topics and in a variety of settings. They will share their journeys as researchers advancing the science of nursing education.

Conversations with the panelists will include examining their experiences, the benefits and challenges of conducting pedagogical research, and lessons learned. The second half of this preconference will offer participants the opportunity to converse with the panelists about conducting research in nursing education and establishing a research trajectory to advance the science.

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## WKS3 - WORKSHOP 3: Differentiating Boundaries: Research and Practice Doctorates

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*Karen H. Morin, PhD, RN, ANEF, FAAN, USA*

*Katherine J. Moran, DNP, RN, CDE, USA*

### Abstract

**Introduction:** Doctoral education in nursing is not new (Ponte & Nicholas, 2015). In the early to mid-1900s, doctoral education was obtained by attending schools granting a Doctor of Education. Then, discussions ensued about whether nursing schools should offer their own doctoral programs, including whether the degree awarded should be the universally recognized research doctorate (PhD) or a professional doctorate (DNS, DNSc, DSN). However, the curricula for professional doctorates were, for the most part, identical to that of the research doctorate. Soon after, the quality and cost of healthcare came into focus. Reports were released from the Institute of Medicine, *Crossing the Quality Chasm* (2001) and the *Future of Nursing* (2010) that made an urgent call for fundamental change in healthcare delivery. The answer to this call was the advent of yet another professional doctorate; the doctor of nursing practice (DNP) degree (Moran, 2017). The focus of this doctorate, however, is clearly on improving practice by enhancing preparation in “evidence-based practice, quality improvement, and systems thinking, among other key areas” (Bednash, Breslin, Kirschling, & Rosseter, 2014). Understandably, the number of doctorate designations has led to confusion within the discipline and within the public. While clarification has ensued relative to what constitutes the final product of the research doctorate, differentiating what constitutes a DNP product from a PhD product has remained fuzzy and problematic (Dols, Hernández, & Miles, 2017). Recent AACN efforts have helped address this issue.

**Purpose:** The purpose of this presentation is to help clarify confusion about what distinguishes a practice doctorate product from a research doctorate product as ways of generating knowledge for the discipline, with special emphasis on how these products contribute to the science of nursing education.

**Process:** During this very interactive session, participants will have the opportunity to clarify their perspectives on practice and research doctoral preparation, review approaches to knowledge generation with emphasis on how each approach to doctoral education addresses gaps in knowledge, describe similarities in skills needed to address the gap in knowledge, discuss the critical role of collaboration between research and practice scholars, and compare and contrast methods used and products generated by research and practice scholars.

Participants will have the opportunity to review their understanding of how to conduct research and quality improvement efforts by comparing and contrasting such topics as statement of the problem, questions to be answered, methods to employ, human subjects’ consideration, and data analysis. Examples of products produced by research and practice scholars will be provided and discussed. Participants are encouraged to bring their current efforts in nursing education for input from the speakers and the audience.

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# WKS4 - WORKSHOP 4: Informatics: Integrating the Essentials Into Education and Practice

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## Abstract

Informatics happens at the intersection of people and technology. Embedded within the American Associations of Colleges of Nursing's Essentials documents are clear, leveled objectives on achieving informatics competencies prior to graduating from a BSN, MSN or DNP program. These essentials are aimed at equipping students with advanced tools to implement in order to drive change. From the baccalaureate level, graduates must have basic competence using technologies that support patient care interventions as well as integrating clinical support systems that guide practice. The master's level essentials then build upon this foundations and considerations are made for the evaluation of technology and data to improve health outcomes. At the doctoral level, graduates are prepared as leaders to use these systems to extract data and evaluate and monitor outcomes of care systems. This includes quality improvement aimed at the critical elements for patient care technology. As each degree level, there is an emphasis on effective communication and ethical behaviors in the use of technology in patient care.

This session will focus on two key concepts to informatics in nursing. The first is the integration of the informatics essentials into education. The challenge in nursing education is how to effectively integrate informatics within the context of curriculum when there are competing interest for time, attention and clinical experiences. This session will start with a discussion of the strategies that are currently being used in education and develop into a conversation encompassing innovative methods for the integration of informatics competencies in curriculum.

The second concept will explore the opportunities to use informatics based research to achieve the quad aim of improved outcomes, decreased cost, improved patient satisfaction and improved provider satisfaction. Informatics tools are frequently employed throughout the process of quality improvement projects however there is much to be said about the contributions to health care research that can be accomplished through informatics.

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# Oral Presentations

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## A 01 - Academic Partnerships

### Development of Academic and Non-Profit Organization Partnership: Creating International Clinical Experience for Nurse Practitioner Students

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#### Abstract

**Introduction:** A new partnership between a School of Nursing in the United States and a non-profit charitable organization (NPO) serving patients in Honduras resulted in benefits to students, the School, the NPO, and the patients served by the NPO. Despite the globalization of healthcare, pressure for a culturally competent workforce, and the noted benefits of study abroad experiences, no published examples of academic nursing and NPO partnerships for graduate nursing students were found in the literature. One example of a partnership between a School of Nursing in the United States and four non-government agencies in Guatemala was found (Goodman, 2016). Benefits of study abroad experiences have been identified in the literature and include: deeper understanding of nursing practice in another country, cultural competence development, professional and personal growth, and a global view of health (Kent-Wilkinson, Leurer, Luimes, Ferguson, & Murray, 2015). A systematic thematic synthesis of the literature focusing on undergraduate Australian nursing students and international clinical placements identified similar benefits (Browne, C. A., Fetherston, C. M., & Medigovich, K., 2015). However, barriers to study abroad participation from nursing students include: cost of study abroad, relationship responsibilities, work responsibilities, language barriers, safety concerns (Kent-Wilkinson, Leurer, Luimes, Ferguson, & Murray, 2015), and curricular demands (Napolitano & Duhamel, 2017). It is possible that the barriers to participation have delayed development of international clinical experiences for graduate nursing students. In addition to lack of published data on academic nursing and NPO partnerships, there is an overall paucity of evidence related to study abroad experiences for nursing students, particularly for graduate nursing students.

**Process:** A faculty member leveraged a personal volunteer opportunity into a new mutually beneficial partnership between the School of Nursing and an established NPO. The faculty member volunteered to be part of a medical mission team to Honduras. The faculty member recognized the potential learning opportunities for graduate nurse practitioner students and received approval from the Dean, the Office of Global Engagement, and the President of the NPO to proceed with development of the partnership.

One student traveled with the faculty member the first year, and the teaching-learning environment was evaluated. Based on positive experience and feedback from the faculty and the student, a formal course was developed, and a cohort of six students participated the following year.

**Barriers in the Process:** Barriers had to be overcome in order to successfully navigate the partnership. The NPO has a very specific goal, which is to provide health care in remote areas of Honduras. Due to capacity limits on the facilities used by the NPO team members, the balance of skills on a team must be carefully monitored. This means there is a limit to the number of students that can be on a given team. Within the School of Nursing, the experience had to be approved for clinical practicum. Additionally, the course had to go through the process of development, curriculum committee review, and finally approval at all levels in the University. The faculty member had to work closely with the Office of Global Engagement for the University to ensure all requirements were met and followed.

**Key Factors to Success:** Several factors were key to success of this partnership. The vision and mission of the School of Nursing aligned with the mission of the NPO. This particular NPO has been engaged in patient care in a specific geographic region of Honduras for over three decades. The leadership of the NPO is able to provide significant support to participants. The NPO has worked with members of the local community to identify needs and has hired Honduran staff and a Honduran Director of Operations to work with each team. Each team typically consists of physicians and/or nurse practitioners, nurses, dentists, pharmacists, optometrists, lab techs, and other volunteers.

In order to address both the financial and time costs of participation, the NPO sends teams for seven to ten days at a time. To ensure continuity of care, the NPO schedule twenty teams a year. The short time commitment for individual team members overcomes one of the noted barriers to nursing student participation in international clinical placements (Kent-Wilkinson, Leurer, Luimes, Ferguson, & Murray, 2015), without compromising patient continuity and access to care. The ability to meet both team member needs of short time commitment and patient needs of regular access to care are unique features to this partnership.

**Outcomes:** The School of Nursing benefited by being able to offer an international experience to graduate nursing students, which appears to be unique in the duration of the trip and in the targeting of graduate nursing students. The experience provided each of the seven nurse practitioner students forty clinical practicum hours, which relieved some of the burden for clinical placement in the United States.

Students benefited from the experience by being part of an international and inter-professional team. Students were able to participate in care, similarly to clinical rotations in the United States. The patients' health issues included chronic diseases and rare and tropical diseases across the lifespan. Students also gained experience in providing care in limited-resource areas. Student learning about the Honduran culture and social determinants of health was evident in their reflective journal entries and course evaluations.

The NPO benefited from this partnership by having a full team of health professionals. Based on student comments, there is potential that students as team members may lead to future participation after students become advanced practice professionals.

Patients in the host country benefited from the care provided. Each team cared for over 700 patients in less than seven days and dispensed over 2500 prescriptions. Many patients traveled hours or days to get to the clinics and would not have had access to healthcare if the teams had not been there.

**Conclusion:** Significant opportunities exist for real-world learning and patient care in mutually beneficial partnerships between academic nursing and NPOs. Studies are needed to determine the long-term benefits of short-term medical trip participation during graduate nursing programs. These studies should consider not only the outcomes to patients in the host country, but also longitudinal studies on outcomes for the new nurse practitioners' patient population, the student perception of the educational program, and whether there is an influence on future participation in humanitarian work. There is a need for global health competencies to be defined and accepted across academic institutions related to all levels of

nursing curriculum. Further investigation of academic and non-academic partnerships for clinical placements should also be explored so best practices can be developed.

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## A 01 - Academic Partnerships

### The Affiliate Faculty Role: A New Model for Clinical Nurse Education

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#### Abstract

**Background:** Undergraduate nursing programs across the nation are facing clinical faculty shortages challenging them to meet state board authority requirements, including student-to-faculty ratios. Many programs use part-time or adjunct faculty to fill these roles. In fact, there has been a 226% increase in the use of adjunct faculty from 1975 to 2011 (Curtis, 2013).

In a recent study, students identified a lack of clinical expertise by faculty who do not work at the bedside as a factor that contributes to challenging clinical learning environments (O'Mara, McDonal, Gillespie, Brown, & Miles, 2014). Nurses who work at the bedside are well positioned to teach undergraduate nursing students about current practices that meet the highest standards of quality and safety. However, staff nurses who are interested in teaching often lack the education or professional development needed for assuming the role (Dahlke, Baumbusch, Affleck, & Kwon, 2012). Academic-practice models that employ hospital staff nurses as clinical faculty could be an effective strategy for both reducing the theory-practice gap commonly seen among new graduate nurses and supporting the development of nurses in practice to assume an educator role. Results of a systematic review indicated that academic-practice partnerships were the most common method for addressing the clinical nurse faculty shortage (Wyte-Lake et al., 2013). However, understanding the effectiveness of these partnership models from the perspective of students and faculty who teach in these roles remains an underexplored area of research.

A mid-western school of nursing and its affiliated academic medical center developed an academic-practice model to address the clinical faculty shortage and improve student and faculty learning experiences. The onboarding model was adapted from Letcher and Nelson's Culture of Caring Partnership Bundle (2014) and Reid's Eastern Shore Faculty Academy and Mentorship Initiative (ES-FAMI) (2013). Staff nurses are contracted to teach clinical one day per week while maintaining their full-time status in the hospital. Nurses who either hold or are actively pursuing a graduate degree in nursing and are employed full-time at the hospital are eligible to apply for an affiliate faculty position. Affiliate faculty exchange one 12-hour shift in the hospital for teaching one group of six BSN students one day per week in the hospital. Since the start of this partnership, the school of nursing has been able to reduce student to faculty ratios from 8:1 [HN1] to 6:1, while reducing costs and time spent onboarding faculty. Recently, there have been more RNs applying for clinical affiliate positions than openings available, showing the growing popularity and sustainability of this model.

**Purpose and Aims:** The purpose of the study was to evaluate both student and affiliate faculty perceptions of the effectiveness of the academic-practice partnership affiliate faculty model. The specific aims were to:

1. Understand the student perception of affiliate faculty as clinical experts and their ability to reduce the theory-practice gap.
2. Discover whether student perception of safety is improved in clinical settings when under supervision of an affiliate faculty.
3. Explore the affiliate faculty model as a way of addressing the clinical faculty shortage.
4. Describe the potential benefits and challenges of the affiliate faculty model.

**Methods:** This study used a mixed-methods descriptive survey design. Nursing students who completed the BSN program at the school of nursing between the years of 2012-2017 and affiliate faculty who taught at least one BSN clinical in the affiliated hospital during that same time were invited to participate in the study. A letter of invitation and link to an electronic survey was emailed to all potential participants. The survey consisted of Likert-type questions (ranging from 1 = strongly agree to 5 = strongly disagree) and open-ended questions. Survey Monkey was used to administer the survey and collect responses. Data were collected from March through April 2017. The study was approved by the academic medical center internal review board prior to implementation.

**Results:** In total, 72 student graduates participated in the study. Students reported having more clinical experiences with affiliate faculty (3-5 semesters = 62.5% of respondents) than with non-affiliate faculty (2 semesters or less = 69.7%). An overwhelming majority (65/66 respondents) agreed or strongly agreed that their affiliate faculty were clinical experts, and prepared them to deliver safe nursing care. The majority of student respondents (54/65, 83.1%) also agreed or strongly agreed that their affiliate faculty impacted their ability to connect classroom concepts to clinical practice. Students had mixed perspectives when asked to describe any differences they found between affiliate and non-affiliate faculty, with 12 reporting no difference, 10 reporting affiliates being less favorable than non-affiliates, and seven reporting affiliates as more favorable. When asked to describe benefits they experienced in being taught by affiliate faculty, students (n=20/31) reported affiliate faculty's knowledge of the curriculum and health system, commitment to teaching, instilling confidence, support at the bedside, and being a resource for employment. Twenty-five affiliate faculty participated in the study. There was a wide range in nursing experience, ranging from 0-3 years (28%) to 11 years or more (24%). The majority (60.9%) of faculty respondents had taught as an affiliate faculty for 2-3 semesters. All faculty respondents agreed or strongly agreed that their affiliate faculty role benefited the students, and benefited the unit they taught on. The majority (85.7%) of faculty respondents agreed or strongly agreed that they were able to help students connect classroom concepts to clinical practice. All respondents (n = 23) agreed or strongly agreed that they were able to prepare students to provide safe patient care. When asked to describe any potential conflicts in their role, affiliate faculty responded: none (n=11), time/scheduling (n=5), and staff nurse conflicts (n=2). When asked to describe what they enjoyed the most about the role, affiliate faculty responded: being with students (n=7), connecting classroom to clinical (n=7), teaching hands on/skills (n=5), and seeing students develop or "light bulb moments" (n=6). When asked to describe what was most challenging about their role, affiliate faculty responded: time/grading/scheduling (n=11), barriers to teaching (n=4), and student issues (n=3).

**Conclusions:** Many benefits of the affiliate faculty model were identified, including student perceptions of their clinical faculty as experts and ability to prepare them for safe nursing care delivery, and ability to connect classroom concepts to clinical practice, both from the perspective of the

students and affiliate faculty. Students either reported no difference or more benefits of having an affiliate faculty compared to non-affiliate faculty. When implementing an affiliate faculty model, it is important to consider time management and scheduling needs of the affiliate faculty. Overall, affiliate faculty reported enjoyment of their experience, especially with the “light bulb moments” that come with teaching.

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## A 02 - Enhancing Patient Care Competency

### Assessing Clinical Judgment Behaviors and Self-Reflection Using the Lasater Clinical Judgment Rubric

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#### Abstract

Research and anecdotal evidence consistently demonstrate that new graduates are often neither prepared to care for high-acuity patients nor sufficiently competent to recognize and intervene appropriately in unfolding situations (Thiesen & Sandow, 2013, Miraglia & Asselin, 2016). Nurse educators in colleges and hospitals are challenged to educate nurses as critically thinking participants in interdisciplinary teams (Aiken, Clarke, Sloane, Sochalski & Silber, 2002). Stakeholders, such as accrediting agencies, employers, patients and students themselves increasingly demand accountability via valid and reliable assessment tools for quality education (Murray, Gruppen, Cattom, & Woolliscroft, 2000).

Nurse educators work to develop critical thinking skills to enhance clinical judgement through a variety of means such as simulation (Kardong-Edgren, 2012, Chen, Chen, Lee, Cheng, & Yeh, 2017), role-playing (Juarez et al, 2006), portfolios (McMullan, 2008) and clinical placements (Woodley, 2013). Students must learn to develop self-awareness of their own clinical reasoning and judgement skills (Akerjordet & Severinsson, 2007) to continue their professional learning as novice and practicing nurses. Walsh and Seldomridge (2006) emphasize that students need to learn specific types of thinking relevant to novice practice; such as problem solving, decision making and diagnostic reasoning in health care situations. Nursing students need opportunities to act as detectives in order to develop clinical reasoning and judgment, learn how to act in given situations, set priorities, respond to changes in a patient's condition, and attend to evidence-based rationales to guide practice (Benner et al., 2010).

Simulation with Human Simulation Manikins (HSM) permits faculty to expose students to complicated yet safe patient care situations that permit development of and practice of these type of reasoning skills (Samei & Lasater, 2016). Indeed, Chee (2014) observed that education using deliberate simulation experiences developed specific clinical skills more effectively than did traditional clinical experiences.

Lasater's Clinical Judgment Rubric (LCJR, 2007) was used in a senior baccalaureate simulation course as a scaffolding for development of clinical judgement behaviors and practices, and to measure awareness of behavioral deficits. The LCJR uses the nursing process framework which provided a logical structural format already familiar to students. The LCJR provided direction for assessing clinical judgment for both faculty and students in a new simulation course.

The primary research hypothesis theorized that through weekly reflection using the LCJR, students' awareness of and incorporation of critical thinking behaviors would improve their movement across a continuum of novice towards exemplary behaviors.

Secondly, we hypothesized that this increased self-awareness of critical thinking behaviors would lead to accurate student self-evaluation of simulation lab participation. Therefore, faculty member's evaluations and student self-evaluations using the LCJR should closely correlate. IRB and LCJR author permissions were granted.

Participants (N=57), traditional undergraduate college students in their senior year, were assessed regarding use of the LCJR in three different ways. Two methods were quantitative. A quasi-experimental design using repeated-measures test compared students' scores at two different points during the 14 week semester. And a quasi-experimental design compared between group comparisons of faculty and student final averaged LCJR scoring. Qualitative student focus group surveys provided additional data to better triangulate particular strengths or concerns related to use of the LCJR.

In two-tailed t-test analysis of LCJR scores, students' self-evaluation scores (M=2.675, SD=0.2491) compared with faculty evaluation scores (M=3.12, SD=0.3175), with a p-value of 0.0389 demonstrated no significant difference between the means using a 95% confidence interval. It was found that students across all twelve sections consistently graded themselves lower than faculty at the interventional dimension, but graded themselves slightly higher than faculty at the diagnosing dimension. This correlates with what Benner, Tanner and Chesla (2009) describe as a tendency of novice nurses to focus on mastering skills versus developing a "big picture" perspective. However, unlike Fenske, Harris, Aebersold and Hartman (2013), overall scores were similar between students and faculty with these traditional, inexperienced students. Faculty assessment of students demonstrated movement across the continuum of novice towards exemplary behaviors over a 14 week course.

The LCJR provided direction for assessing clinical judgment for both faculty and students in a high acuity 14 week simulation course. It provided consistent descriptors in debriefing feedback and promoted an objective measure of clinical evaluation (Lasater, 2007). Though orientation to LCJR use proved cumbersome initially, the LCJR guided development of clinical judgement behaviors and reflection for students in a consistent and deliberate manner.

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## A 02 - Enhancing Patient Care Competency

### Using an e-Learning Course to Enhance Student Patient Care Competency Within Interprofessional Settings

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#### Abstract

The care of patients with multiple chronic conditions is becoming a significant factor in the delivery of health care in the U.S. (Orenstein, Nietert, Jenkins & Litvin, 2013). Because of their holistic approach, nurse practitioners (NPs) are uniquely qualified to care for the growing number of these patients, with the majority of NPs working in primary care (Van Vleet & Paradise, 2015). Chronic health conditions must be treated differently than acute or episodic problems, and the best outcomes are achieved through use of health care delivery frameworks that support chronically ill patients (Improving Chronic Illness Care, 2017). Patients with complex health problems benefit from the diverse skills and perspectives of an interprofessional healthcare team (Institute for Healthcare Improvement, 2014).

The Interprofessional Care of Individuals with Multiple Chronic Conditions (IPCMCC) eLearning course is designed to enhance the competency of NP students to support patients in the self-management of their chronic conditions within interprofessional healthcare teams. This highly interactive, open-access course integrates the competencies of the Interprofessional Education Collaborative (IPEC) Expert Panel (2011) with the Chronic Care Model (Wagner, et al, 2001). As we developed this eLearning course, we applied strategies to promote learner engagement and authentic practice. We selected key course topics such as patient engagement in self-care, Motivational Interviewing and other coaching techniques, behavior change facilitation, identification of community and family resources, promoting self-efficacy, and interprofessional teamwork. The content was selected based on studies that identified the characteristics of effective management of multiple chronic conditions (Bodenheimer, & Berry-Millett, 2009; Bodenheimer, T., & Abramowitz, S., 2010; Institute for Healthcare Improvement, 2015; Parehkh, Goodman, Gordon, & Koh, 2011). Throughout the course, real-world examples and scenarios provide the context for learning and contain interactive and reflective exercises. The course concludes with an immersive, video-based practice experience in which learners make decisions, receive feedback and experience consequences as they follow an interdisciplinary team through a day in the life of a patient-centered medical home. Learners completed pre- and post evaluation surveys to measure satisfaction and perceived learning with the eLearning course. Responses were rated on a 5-point Likert scale ranging from poor (1) to excellent (5). The pre-and post-test results were as follows: applying the Chronic Care Model to clinical practice,  $t = -11.67$ ,  $df = 98$   $p < .0001$ , coaching patients for self-management,  $t = -9.46$ ,  $df = 98$   $p < .0001$ , interprofessional collaboration skills,  $t = -2.40$ ,  $df = 98$   $p < .0001$ , indicating a significant difference in perceived knowledge between the pre-and post-test. The majority of the learners were satisfied or very satisfied with the modules. Qualitative findings indicate high level of satisfaction with the video scenarios. Results of our evaluation indicate that students found the Interprofessional Care of People with Multiple Chronic Conditions eLearning course to be engaging, informative and applicable to real world practice.

The IPCMCC eLearning Course is freely available for use by educators, students and providers world-wide through an open-access learning management system. We will demonstrate portions of the course and its complementary Instructor Guide for the benefit of faculty who may wish to access and adopt the course within their own curricula.

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## A 03 - Faculty Shortage and Retention

### The Nursing Faculty Shortage in Maryland: Findings of a Statewide Needs Assessment

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#### Abstract

**Purpose:** The aim of the Eastern Shore-Western Shore Faculty Initiative (ES-WSFI) was to create a comprehensive needs assessment to identify common and unique issues related to the statewide shortage of undergraduate and graduate nursing faculty in Maryland. The lack of qualified nursing faculty is a leading factor in the shortage of registered nurses (Kowalski & Kelly, 2013). Robeznieks (2015) noted in the 2014-2015 academic year over half of all AACN member schools reported a total of 1,236 full-time vacancies. In 2015, among Maryland's twelve baccalaureate and graduate nursing programs alone, there were 35 faculty vacancies (AACN, 2016).

**Background:** The needs assessment provided a foundation for subsequent planning to address the nursing faculty shortage in regionally diverse nursing programs.

**Method:** In collaboration with 12 universities, colleges/community colleges, a mixed-methods approach comprised of web-based surveys, faculty focus-groups and interviews with deans/directors was undertaken over a two-year period. Faculty and administrators were invited to complete a needs assessment which included demographic and program information, their views on current approaches to address faculty staffing needs, identification of possible untapped resources, and potential solutions. A project-specific website was constructed to facilitate communication about the two-year project. The online survey, a 49 item, researcher constructed instrument, was available through a password-protected site to avoid duplicate submissions. Respondents were asked to indicate their level of agreement with statements using a Likert-type scale with options of "strongly disagree, disagree, unsure, agree, and strongly agree". They were also asked to answer questions about which clinical specialties were most difficult to staff, the existence of organizational barriers to managing the faculty shortage, approaches to the faculty shortage that had already been tried, and what additional strategies they would consider.

**Results:** Faculty from twelve nursing programs, representing all geographic regions of the state, responded. In undergraduate programs the majority of respondents (53%) agreed/strongly agreed there were inadequate faculty for growth; 58% of respondents in graduate programs agreed there were inadequate part-time faculty for growth. Recruiting faculty from under-represented groups for both undergraduate and graduate teaching positions was identified as challenging by 90% and 87% of respondents respectively. Retaining faculty from under-represented groups was also viewed as difficult for both undergraduate (80%) and graduate faculty positions (56%). Strategies used by undergraduate programs to address the shortage of faculty included hiring more adjuncts, limiting enrollments, using simulations, and increasing clinical group size. At the graduate level, strategies that had been tried or might be considered included joint appointments between academic and health care organizations, "growing our own", and delaying retirement. Organizational barriers reported by faculty at both levels included inadequate socialization and preparation of clinical faculty for their roles, need for further education in evaluating students, low salaries, and heavy teaching loads.

**Implications/Conclusions:** The nursing faculty shortage is affecting programs across Maryland in similar ways. Of particular concern is the difficulty in recruiting and retaining individuals from under-represented groups in nursing including those from racial and ethnic minorities and men. Current strategies of increasing clinical group size and limiting enrollments are short-term solutions at best. Increasing reliance on part-time faculty will require better preparation of clinicians-turned-educators to assure that quality instruction and oversight is provided. At the graduate level, when enrollments in master's and doctoral level programs are capped, the pipeline for future educators is likewise restricted. While this needs assessment did not provide any clear-cut solutions, it did provide statewide data in a single place and opened dialogue across programs. Given this infrastructure, future initiatives can be implemented, maximizing efficiency and effectiveness in utilization of precious faculty resources while addressing the need for increasing capacity in all nursing education programs.

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## A 03 - Faculty Shortage and Retention

### Expanding Self-Efficacy of Nursing Faculty With Improved Orientation

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#### Abstract

The NLN (2015) reports that the complex healthcare system is being stressed by a nation-wide workforce shortage and this is being exacerbated by nursing schools rejecting the qualified candidates due to an inadequate number of faculty to educate the entrants. The constraints of limited and qualified nursing faculty is astounding and the effects are nationwide. Crocetti (2014) discusses that on frequent occasions, the newly hired adjunct faculty are inexperienced in their new role as an educator and deficiencies are noted in preparing the instructors on how to educate nursing students for the complex healthcare system they will encounter upon graduation. Research reveals that in order to retain the clinicians, and increase a successful transition to academia, guidance is needed by supporting the new educators through improved orientation and mentoring programs (Cranford, 2013; Danna et al., 2010; Grassley & Lambe, 2015). The problem identified for the research study was that new faculty members were lacking an appropriate orientation to transition into the faculty role and many were choosing to leave education due to the feeling of not understanding their teaching role. A local nursing school updated and improved their nursing faculty orientation to better meet the needs of the current instructors. The current research is a retrospective analysis of data from the enhanced orientation to compare teaching self-efficacy before and after completing the orientation. The research question was the following: Will there be a difference in adjunct faculty's teaching self-efficacy after receiving an online orientation as measured by pre- and post-test? The research of this pilot study revealed statistical significant in an increase of teaching self-efficacy scores following completion of the orientation course at the local university, Wilcoxon Signed Rank Test  $z = -2.52$ ,  $p < 0.05$ , with a large effect size ( $r = -0.63$ ). The study findings supports acclimating nursing faculty to their role as educator will increase teaching self-efficacy. If the faculty are cultured to their role, they may choose to stay in education which may assist to combat the nationwide nursing and nurse faculty shortages.

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## A 04 - Genomics in Nursing Education

### Engaging Nursing Students for Genetic/Genomic Learning

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#### Abstract

Nursing accrediting bodies now require that genetic and genomic content be included in nursing curricula (American Association of Colleges of Nursing, 2008). In addition, a consortia of nursing and other health care organizations have published a document on the importance of genetic/genomic competencies for nurses (American Nursing Association, 2006). While genetic content may be included in many courses it may also be taught as a separate course. At a southwestern university it has been taught as a three credit and more recently a two credit nursing course.

How to teach genetic/genomic content is challenging. Nursing students at a southwestern university have complained that the mandatory genetics course should be removed from the curriculum as it was not seen as necessary for clinical nursing. Course evaluations have been low. Students like the hybrid format with 51% face to face class time and 49% online learning. However, there have been complaints that self-learning of power point slides was not effective because the internet and book were needed to augment information and this took too much time. The two exams were unpopular as they covered an enormous amount of material and it was not clear what content would be on the exam. Case studies were said to be boring as at least 12 groups of students took 30 minutes each to present in class. Diseases and conditions selected were often rare or obscure. Exit interviews of graduating students indicated that they did not value the course and saw little application to nursing. With this in mind, the course was reimaged keeping the hybrid format.

In preparing for needed changes to the course the course instructor reviewed evidence based best teaching practices and contacted the university's Innovative Teaching Center. Recommendations from the literature are many. Billings and Halsted (2016) discuss the need to help students to think and process information, the importance of reflection, appreciating a variety of learning styles, and the value of immediate feedback. Also mentioned is the usefulness of including technology as a learning tool since today's students are proficient in its use and respond positively when it is used. Bradshaw and Hultquist (2017) in a review of the literature, add that non traditional teaching strategies and creative approaches should be considered in engaging students. Further discussed is that cooperative and collaborative assignments allow students to be actively involved and participate in the learning experience. Finally, empowering students is also an effective approach in engaging students. The National League of Nursing (NLN) echoes the importance of a student centered approach and the high importance of actively engaging students in the learning process (NLN, 2015).

Modifications made to the course took into account consistent student feedback that they wanted to keep the hybrid format as it allowed for a more flexible schedule. Students also voiced they did not want a totally online course because genetics content is seen as challenging and requiring faculty feedback and class discussion. Collaborating with the Innovative Teaching Center, the course was modified taking into account student feedback, but also the teaching imperative to make the course more engaging.

The online portion of the course now requires students to review reading from their genetics book. Each week students review one module choosing to read the chapters or listen to voice over power points of the chapters. The main points are covered in the PowerPoints but further clarification can be obtained by referring to the text. Students are encouraged to review end of chapter questions for possible inclusion on quizzes. Face to face class time is begun by taking a short online quiz on content covered in the week's module. Quizzes are taken individually through the university's intranet. Then in assigned groups, students discuss the questions and take the same quiz again. Answers are entered on a scratch off card. Group consensus of answers is required but the opportunity to submit a written rebuttal of a question is provided.

Additional class time is spent in a variety of ways. There may be a short PowerPoint presentation by the faculty related to an assignment. Video tapes may also be shown during class asking students to reflect on the role of the nurse or issues around testing, counseling, and working with families experiencing a genetic disease or condition. Thus, the class as a whole enters into discussion. There may also be small group exercises related to topics covered from learned material.

The most popular class activity is listening to guest speakers. Speakers tell personal stories of how a genetic condition affected their lives and the role played by nurses and other healthcare providers. Guests discuss issues related to finding out about the condition, their emotional reaction, the financial impact, family reaction, emotional support, decisions around testing, and how the condition has affected their everyday life. These stories are emotional and affect the students emotionally as well. Students have commented that they very much appreciated having guests present even though they did not always agree with decisions that were made.

The face to face class time ends with work on assignments. Group homework is done during class time and posted to the intranet before the end of class. Group homework focuses on ethical, legal, and social issues related to genetic conditions. Discussion of opinions for and against a particular case are encouraged. The only individual assignment is to construct and submit a pedigree of the student's family. Students enjoy this activity as it allows them to gather a family history and reflect on their genetic pool.

Student feedback about the course changes is positive and the course evaluation has improved. Both in writing and anecdotally students have commented that they enjoyed the class, learned a lot, and have been able to apply knowledge learned in class to cases seen in clinical. Above all students' voice that the guest speakers were "awesome" and provided a realistic picture of how genetics affects people's lives.

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## A 04 - Genomics in Nursing Education

### Innovative Teaching Strategies for Genomic Content Integration Into Nursing Curriculum

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#### Abstract

The effective use of technology to improve nursing education and practice, patient outcomes, and the value of nursing overall as a collaborative inter-professional leader is essential. Integrating technology and genomic science into nursing education is a natural progression. Genomic science is redefining the understanding of the continuum of human health and illness. With the advent of genomics as a required core competency, it is incumbent of all nurse educators to be knowledgeable in this content. The National Coalition for Health Professional Education in Genetics developed the Core Competencies in Genetics for Health Professionals, to encourage clinicians and other professionals to integrate genetics-genomics knowledge, skills, and attitudes into routine health care, thereby providing effective and comprehensive services to individuals and families (NCHPEG, 2007) The required competencies of providing essential information, support, guidance and education pertaining to genetic conditions is expected for all levels of initial pre-licensure preparation, as well as advanced practicing nurse professionals (AACN, 2008; Consensus Panel, 2009; Consensus Panel, 2011; Rogers, Lizer, Doughty, Hayden & Klein, 2017). Nursing students need to demonstrate an integrated knowledge of genetic principles and frameworks applicable to nursing, research, healthcare and/or health education. These 21st century healthcare providers must be proficient in interpreting scientific evidence relating to genomics in the clinical settings (Camak, 2016). They need to practice in an effective and efficient manner in the post-genomic era, actively participating in the education of patients, practice and policy-making regarding the application of genetic information and knowledge. The progress of genomic nursing competencies has global implications for all nurses and especially for nurse educators who are responsible for preparing the future nursing professional. The impact of nursing education science to embrace this competency must occur if nursing is to remain a collaborative member of the inter-professional healthcare team. By exploring innovative and creative formats, nurse educators will learn how to enhance their students learning process to become active participants, engaged and focused as they learn to apply their knowledge of genomics.

Engaging and innovative teaching strategies while maintaining a class community to facilitate the professional education and discussion while integrating genomics into pre-licensure through advanced degree students is a necessity in today's educational realm. Organizing online assignments and group discussions to enhance learner outcomes to increase knowledge base and comfort level is the nurse educators' primary expectation. Lack of knowledge of genomics and a lack of confidence in facilitating this complex content are significant obstacles to integrating this specialty into education. Inclusions of Mashup webpages [web applications], hyperlinks and YouTube videos can further advance students' proactive learning.

Another innovative strategy is integrating a genetic patient scenario into a simulation. Augmenting required content into constrained nursing curricula is a challenge. Simulation prepares students for real-world experiences and simulation has an obvious role in expanding and developing genomic competencies (Weatherspoon, Phillips, Wyatt, 2015). Integrating a genetic component into simulation is an effective educational format to further enhance genomic knowledge of both students and facilitators. Pre-licensure students can be exposed to genomic content through simulations on newborn testing for PKU (phenylketonuria); sickle cell anemia, familial hypercholesterolemia, Marfan Syndrome and Alzheimer's Disease, as well as integrating concepts of patient education. Advanced degree students' simulation scenarios can provide an opportunity for students to discuss complex multifactorial polygenetic conditions and the implications of pharmacogenomics, epigenetics and ecogenetics into clinical practice (Cheek, Bashore & Brazeau, 2015). Research has already proven that simulation is an effective and efficient teaching tool and the inclusion of genetic conditions is the next logical advancement (Howard, Englert, Kameg & Perozzi, 2011; Holt, Tofil, Hurst, et al., 2013).

The clinical relevance of promoting the transformation of genomic knowledge and practice to advance global health practices and nursing competency is an ever-evolving process that begins with the realization that all educational levels must be involved and informed to integrate this knowledge and confidence into practice to improve patient health outcomes. Despite the growing use of genomic applications in clinical practice, health professional knowledge about genomic information and confidence in using it have not kept pace, as many nurses do not have the knowledge or the tools they need in order to apply genomic information in their professional practices (Munroe & Loerzel, 2016; Ward, Purath & Barbosa-Leiker, 2017).

This presentation will discuss the core competencies for all nurses, from pre-licensure baccalaureate to graduate degree practitioners. In addition, strategies to integrate these core competences, either in a stand-alone course or threading through the curriculum, will be explored. With nursing students of all educational levels, is it necessary for nurse educators to provide a variety of learning strategies, to stimulate self-directed and collaborative learning. Finally, self-directed learning strategies will be explored to enhance the nurse educators' own genetic/genomic knowledge. Promoting the transformation of knowledge and practice to advance global health practices and nursing competency is an ever-evolving process that begins with understanding the educational level of all involved.

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## A 05 - Innovations in the Classroom

### Faculty Mentorship to Facilitate MSN Nurse Educator Students in Reconceptualization of a RN-BSN EBP Course

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#### Abstract

Florida Southern College School of Nursing has paired the MSN Educator student with an experienced faculty member as their preceptor and mentor to guide the graduate nursing student in the role of nurse educator in the academic setting. The importance of mentorship for MSN Educator students is critical to improve the student's academic experience and ability to apply new teaching and learning concepts. Of particular importance is the student's ability to develop the essential skills to effectively create and manage courses in hybrid formats. To accomplish this, a faculty mentor must guide the student, as the student immerses him/herself into the construction of course objectives and curriculum. Faculty trained in blended course best practices, supported by instructional technology and Web-based learning support team, is instrumental in guiding the student.

This presentation presents a case review of the Faculty- MSN Educator Student mentorship process. The MSN Educator student worked with a faculty member for 15 weeks to complete 175 hours of mentorship and practice. The MSN Educator student was assigned to redesign an RN to BSN evidence based course. The course had originally been delivered in a traditional format. The student worked closely with the faculty mentor to create a hybrid course utilizing best practices for a multigenerational student body. The course reconstruction was monitored and feedback provided on a weekly basis by the faculty mentor. The end result was a course that received strong positive student evaluations and a request by some students for additional blended courses.

The faculty mentor guidance of the student through the experience was invaluable; this was instrumental as it allowed the student to recognize her own strengths and opportunities for improvement as an academic nurse educator. This process allowed the student to appreciate the learning journey even more as the student also became more knowledgeable about the many different challenges of providing education to multigenerational classes that learn, behave and perceive course work differently. Additionally, the student gained new insights into how hybrid courses are designed and the unique challenges these courses present. Finally, the project increased the student's confidence in applying information acquired through the program. Being able to discuss class strategies, identify gaps in knowledge, research, and practice was an invaluable experience for the MSN Educator student working with a faculty mentor.

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## A 06 - Mental Health Promotion

### Preliminary Development and Testing of the Risk Assessment Checklist for Self-Injury in Autism (RACSA)

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#### Abstract

Autism spectrum disorders (ASDs) define a group of neurologically-based conditions associated with impairments in social communication and interactions, as well as evidence of restricted, repetitive behaviors (American Psychiatric Association, 2013). The prevalence of ASDs is increasing in the United States and other developed countries. The Centers for Disease Control and Prevention (CDC) published the 2014 report on the prevalence of ASD among 8-year-old children surveyed through the Autism and Developmental Disabilities Monitoring Network (ADDM). Prevalence estimates indicate that one in 68 children meet diagnostic criteria for ASD (CDC, 2014).

Self-injurious behavior (SIB) is a major treatment focus and area of concern for clinicians treating children with ASDs. Approximately 50 % of individuals with ASD engage in some form of SIB (Minshawi et al., 2014). SIB describes a group of behaviors characterized by self-inflicted injuries causing tissue damage, such as head banging on hard surfaces, self-biting, eye-poking, and self-hitting. SIB can result in physical injuries, fractures, head injuries, detached retinas, and in extreme cases even death (Minshawi et al., 2014; Sisk, Motley, Yang, & West, 2013). Overuse of psychotropic medications, use of restraint or physical hold procedures, and injuries to staff and individuals in treatment are all possible effects of SIB.

A systematic review of the literature identified associations between a variety of medical conditions and SIB. Evidence from the literature also suggests that common physical conditions are more prevalent in individuals with ASD including allergies, gastroesophageal reflux disease, constipation, dental caries, and otitis media (Coury et al., 2015; Furtura et al., 2015; Malow et al., 2012; Mayer et al., 2014; Sikora, Johnson, Clemons, & Katz, 2012). Challenging behaviors such as aggression and SIB and communication deficits make it less likely that health problems will be diagnosed and treated in a timely manner. Patient compliance and difficulties with completing a physical exam impede assessment and treatment. Untreated health conditions can result in pain and suffering, leading to SIB. Certain behavioral topographies can be associated with underlying medical conditions. Chest tapping, chewing of clothing and pacing can be observed in individuals suffering from constipation (Bauman, 2010). Chin hitting, increased drooling and head hitting can be observed in individuals experiencing dental pain (Shanmugam et al., 2014). Targeted assessment and treatment is needed to reduce SIBs in children with ASDs.

No evidence based tools were located to assist the healthcare team in identifying underlying health issues that may contribute to the emergence of SIB in non-verbal children with autism. This project involved the development of and preliminary validation of a standardized assessment checklist for the physical, behavioral, and diagnostic evaluation of non-verbal children with autism and SIB living in residential care facilities. Instrument face, content, and expert validity was established. Expert review provided content validity of at least 75% on all checklist items. Satisfactory interobserver agreement (IOA) was established. Two registered nurse raters conducted the IOA. Percent-agreement scores were between 74-90% total, 83-95% agreement was established for any positive rating. Kappa scores ranged from .348-.792, with probability levels below .001 or highly significant, demonstrating intermediate to good agreement beyond chance.

The checklist was piloted on 10 individuals between the ages of 12 and 21 living in residential treatment. Each checklist item was rated using an ordinal scale, the physical items on the checklist were dichotomous. Each of the 60 items on the checklist were scored and subdivided into domains that included; gastrointestinal, head, eyes, ears, nose, and throat (HEENT), dental, and miscellaneous. During the pilot testing phase, total domain scores were calculated using the checklist and triangulated with a physical exam completed by an advanced practice registered nurse (APRN) and considered either a match or no-match. Nine out of the 10 subjects were a match, demonstrating that the scores obtained using the checklist matched the findings of the physical exam. A high score on the checklist correlated with a positive physical exam finding, and a low score on the checklist correlated with a negative exam. A grand total score for the checklist was also calculated by summing the domain scores. The grand total score is useful as a longitudinal measure to assess the individual over time, and to establish an individual baseline.

Results of the project supported the literature, suggesting an association between underlying medical conditions and the emergence of SIB in non-verbal children with ASD. Preliminary validation suggests that the checklist can provide a means for earlier identification of underlying medical concerns and subsequently result in improved treatment outcomes and reduced pain and suffering for children with ASD. Educating nurses about ASDs and the impact illness has on the emergence of SIB in non-verbal children with ASD is critical to improving nursing knowledge and patient outcomes.

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## A 06 - Mental Health Promotion

### Promoting a Restraint Free Culture Through Sensory Modulation

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#### Abstract

The American Nurses Association (ANA) promotes registered nurse participation in reducing patient restraint and seclusion in health care settings. Restraining or secluding patients either directly or indirectly is viewed as contrary to the fundamental goals and ethical traditions of the nursing profession, which upholds the autonomy and inherent dignity of each patient (ANA 2012). The American Psychological Nurses' Association (APNA) supports the psychiatric mental health nurses', critical role in the provision effective treatment and milieu leadership to maximize the individual's ability to effectively manage potentially dangerous behaviors in the psychiatric setting (APNA 2014). The profession of occupational therapy emerged from some of the earliest restraint and seclusion efforts, realizing the need for more humane and nurturing interventions for people with mental health and rehabilitation needs (AOTA, 2014). Given the safety, ethical, professional, regulatory and legal standards related to reducing restraint, it is imperative that alternative, evidenced based strategies be employed throughout our health care settings. Sensory Modulation teaches patient's self-regulation skills and improves the rapport between staff and patients by giving them additional opportunities for therapeutic communication, prevention of escalation and aggression, and tangible alternatives to PRN medications.

Trauma informed care is patient strength based approach to care, as a least ninety per cent of public mental health consumers have been exposed to trauma (Felitti V. J. & Anda R. F. 2010). Instead of talk based therapies sensory approaches provide experiential opportunities to help individuals recognize and regulate their unique sensory experiences. By using sensory modulation strategies in combination with a trauma informed approach to care, patients can feel empowered by identifying their own individual preferences and can feel more secure knowing that staff will work with them during times of crisis to prevent seclusion and restraint episodes. Patients can also identify their own signs of escalation and aggression and alternative methods for coping during times of stress which can translate beyond the inpatient setting and can be used at home after discharge. Additionally, is that nursing staff can feel empowered with the knowledge provided by patients and suggest patient identified methods of calming during times of stress instead of blindly offering cookie cutter suggestions and care based on tradition instead of evidenced based care.

A sensory modulation program was developed and implemented on our 18 bed inpatient behavioral health unit. Results suggest that the use of sensory modulation is an effective strategy in decreasing patient agitation and employee workplace violence related injuries. This project will enable nurses to identify the importance of collaboration with other disciplines in finding alternatives to restraint and seclusion. As nurses we often believe that we are the experts in knowing how to help people. It can be challenging to let go of our perceived control but it is actually a multi-modal/multidisciplinary approach to challenges that serves people best. By the end of the presentation nurse will be able to describe how the use of sensory modulation strategies can be applied to numerous areas of nursing care. Sensory Modulation Strategies can be applied to calming a patient in emergency departments, medical floors and post-surgical units through the use of a mobile sensory cart. Additionally the use of sensory modulation strategies being utilized by care givers themselves will be highlighted as part of our professional responsibility for our own self-care.

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## A 07 - Research in Interprofessional Education

### Changing Teamwork Attitudes With Interprofessional Education (IPE): A Comparative Study

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#### Abstract

Interprofessional teamwork and collaboration among health professionals has been identified for decades as an effective way to improve quality and safety in healthcare (Institute of Medicine, 1999; Agency for Healthcare Research and Quality, 2000). Educating the next generation of health care providers to function using interprofessional collaboration (IPC) competencies is an important step in achieving the goal of safety and high quality care for patients in all settings (Interprofessional Education Collaborative, 2016). A healthcare team consists of individuals brought together for a common goal to work on a patient/community/global health problem, with each member offering a unique perspective and expertise. Individual curricular programs delivered in professional silos may or may not include opportunities for learning how to function in collaborative teams. Effective interprofessional education (IPE) models for developing IPC competencies are needed to ensure all professionals have shared understanding and expectations. A review of IPE literature reveals the important Interprofessional Collaborative competencies that consist of knowledge, skills and attitudes that have been identified by an international team of experts (Interprofessional Education Collaborative, 2016). These competency statements can be used to guide education design of IPE for developing these outcomes. Educators of health care professions need to be deliberate in planning, designing and providing active interprofessional learning experiences that build toward IPC for transition into practice, as well as for ongoing practice as a continuing education focus.

Interprofessional education literature reveals that there is an opportunity to build upon the evidence of earlier studies to establish which design features are most effective in IPE models using robust research methods. Well-designed studies can help define best IPE practices that health educators can replicate. While some IPE features have been studied, others such as time span of education, and team level outcomes have not been addressed.

Interprofessional education in healthcare is a unique form of education that requires consideration of adult learning theory and beyond. It is important for educators to remember that adult learners are practical and self-motivated individuals who want to be included in the learning process, and who expect learning to be directly relevant to their immediate needs such as application to clinical practice (Knowles, 1984). I used the concepts of adult learning theory in this research study by designing active learning that incorporated problem solving, critical thinking and real-life application, as well as the concepts of Social Identity Theory (Allport, 1954) to address attitudes of stereotyping, hierarchies, and team cohesiveness that can affect teamwork outcomes. Attention to developing the right attitude in interprofessional (IP) students can help lay the groundwork for applying knowledge and skills that are not inherent, but must be learned and practiced.

The purpose of this research study was to explore the effect of time-span of IPE instruction on teamwork attitudes of interprofessional teams. The education intervention in this study was a researcher-designed team-training curriculum based on TeamSTEPPS® concepts that included didactic, discussions, and case studies, culminating in a high-fidelity interprofessional simulation (TeamSTEPPS Instructor Guide 2.0, 2014). To compare the effect of time-span of instruction, alternate cohorts of students were provided one of two time delivery methods; one group ( $n=16$  teams) instructed in a single event over several hours, the other group ( $n=8$  teams) instructed in small increments over several weeks. A convenience sample from three cohorts, consisted of 161 nursing, medical, and respiratory therapy students. For the purpose of simulation, they were randomly assigned to interprofessional teams of five to seven students. I measured team-level outcomes of each model by assessing 1) feelings of preparation with a single-item Likert scale, pre-simulation, 2) feelings of anxiety with a single-item Likert scale, pre-simulation, and 3) teamwork attitude pre and post simulation with the Teamwork Attitude Questionnaire (TAQ) (TeamSTEPPS Instructor Guide 2.0, 2014).

Research question: Does teamwork attitude change following interprofessional team training and simulation while controlling for team training method? In order to compare the change of attitude over time at pre and post measurement points, and between the two training groups, a split plot two-way ANOVA test was conducted. Results of the split-plot ANOVA comparison of pre to post team TAQ total scores across intervention groups was equally and positively affected by both education models. The main effect of simulation (pretest to posttest) showed a statistically significant difference in teamwork attitude scores,  $F(1, 22) = 14.67, p = .001$ , with a moderate effect size indicated by partial  $\eta^2 = .40$ . This result indicated that there was no difference between education models for influencing post-simulation teamwork attitude. However, both the short-time and the extended time delivery of education led to significant increases in teamwork attitude following the IP simulation.

Research question: Which predictor team variables, pre-training teamwork attitude, feelings of preparation, or level of anxiety are most predictive of post-simulation teamwork attitude? To determine if post-simulation teamwork attitudes could be predicted by various pre-simulation measures, a multiple regression analysis was performed by entering pre-simulation teamwork attitude, feelings of preparation, and anxiety level into a model with the criterion outcome of post-simulation teamwork attitude for both education delivery models combined. Results revealed that the model was statistically significant  $R^2 = .701, R^2_{adj} = .642, F(3, 15) = 11.741, p < 0.001$ . Further analysis revealed that only pre-simulation teamwork attitude was a statistically significant predictor of post-simulation teamwork attitude, accounting for 79.39% of the variance. These results indicate that even feelings of preparation and levels of anxiety before engaging in IP simulations are less influential in teamwork attitudes than student baseline attitudes before a simulation.

This study design contributes to the IPE and team training research literature in two ways: 1) as a model for collecting data at the team unit level as opposed to the individual level, a noted gap in team research, and 2) comparison of education timespan deliveries on learning outcomes which has been unstudied. Teams function as a unit, and to measure at the individual level may misrepresent the effect of a collective team attitude. Team-level measures add a nuance that captures how team members can affect one another. There are examples in the literature of varied time spans of IPE with some designed for a short duration delivered in hours, and some that are associated with courses that span several weeks. However, there are no studies that directly compare the effectiveness of these very different time spans of IPE on student outcomes.

The results of this study indicate team-training positively affected teamwork attitude for both time delivery models, and builds on other studies that measured the effect of team training on teamwork attitudes at the individual level. Similar results were found in studies that provided short

timespan IPE that demonstrated increased teamwork attitude (Kenaszchuk, Rykhoff, Laura, McPhail, & van Soeren, 2012; Lefebvre, Wellmon, & Ferry, 2015). Similarly, a study by Wong, Gang, Szyld, and Mahoney, (2016) used extended time span team training, and found statistically significant increases in teamwork attitude for teams of doctors and nurses comparing pre and post 1-year TAQ measurements. The results of this study corroborate previous studies that showed both short time and extended time team training can positively affect teamwork attitude. Results can be used by healthcare educators to inform their decisions for use of time and other resources for designing and implementing education for the purpose of increasing teamwork attitudes.

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## A 07 - Research in Interprofessional Education

### State of the Science: Interprofessional Education in Nursing

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#### Abstract

**Background/Significance:** The National Academy of Medicine's (formerly the Institute of Medicine) *The Future of Nursing: Leading Change, Advancing Health* called for a fundamental transformation of the nursing profession in 4 key areas: practice, education, leadership, and the need for data on the health care workforce. Teamwork was cited as a key factor in transforming the area of practice. Interprofessional education (IPE) is a strategy to address teamwork to transform practice. This review focused on the key area of transforming practice through teamwork and IPE. It was based on three classic definitions regarding practice that are vital to IPE.

- The World Health Organization (WHO) (2010, p. 7) defined IPE as occurring when “students from two or more professions learn about, from, and with each other to enable effective collaboration and improve health outcomes.”
- The Interprofessional Education Collaborative (IPEC) (2011) produced *Core Competencies for Interprofessional Collaborative Practice*. Building on the WHO (2010, p.7) definition of interprofessional collaborative practice “When multiple health workers from different professional backgrounds work together with patients, families, carers, and communities to deliver the highest quality of care.”
- IPEC (2011, p. 24) defined interprofessional teamwork as, “The levels of cooperation, coordination and collaboration characterizing the relationships between professions in delivering patient-centered care.”

**Objective:** The purpose of this systematic review was to search, extract, appraise, and synthesize research related to interprofessional education (IPE) between January 2011 and August 2016 in order to report the current state of the science related to IPE in nursing.

**Design:** This review was reported in line with Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA).

**Data Sources:** A literature search was completed with assistance of a professional academic librarian in seven databases: PubMed, CINAHL, ProQuest, Ovid, ERIC, Science Direct, and Scopus using a combination of medical subject headings, or Mesh terms, as well as keywords to retrieve non-indexed citations.

**Review Methods:** The inclusion criteria for this review were broad in order to completely assess IPE and disseminate information on future research needed. The inclusion criteria were as follows: IPE that included nurses (in academia or in practice) in the sample population, original research, limited to the English language from 2009 to August 2016.

**Results:** The database search strategy yielded 202 citations. These results were narrowed to 49 studies based on inclusion criteria.

**Conclusions:** Findings suggest more studies with rigorous research designs are needed. There is a need to compare outcomes following interprofessional interventions and to elicit findings related to the effectiveness of IPE on patient outcomes. These studies will provide evidence at the higher levels of Kirkpatrick's model of evaluation.

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## A 08 - Responding to Uncivil Behaviors

### Development of a Scale to Measure Self-Efficacy to Respond to Disruptive Behaviors

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#### Abstract

Disruptive behaviors in the nursing workplace contribute to negative outcomes for targeted individuals, patients, and organizations where these behaviors are prevalent. Also referred to as bullying, lateral/horizontal violence, and incivilities, the literature is replete with evidence that disruptive behaviors violate respectful communication between nursing staff and ultimately disrupt patient care. Newly licensed nurses are likely to lack the ability to respond effectively to disruptive behaviors, contributing to a turnover rate as high as 30% during their first year of professional practice. Consequently, nursing students anticipate have begun appealing to educators to provide response training in pre-licensure curricula.

Cognitive rehearsal (CR), a form of cognitive behavior therapy (CBT), has gained popularity as an intervention to increase the ability of nursing students and newly licensed nurses to address disruptive behaviors. Variations of CBT have been utilized extensively in nursing and health care education. These interventions focus on skill or behavior mastery by operationalizing the core concept of self-efficacy through education and the opportunity to practice the skill or behavior.

Self-efficacy is domain-specific and requires particular measurements to determine the effectiveness of each type of training. Currently, there is no published measure for specifically evaluating self-efficacy in responding to disruptive behaviors. The lack of a validated and reliable instrument makes the effectiveness of CR interventions difficult to quantify. Thus, the purpose of this project was to develop a domain-specific, theoretically grounded, valid, and reliable instrument to (1) measure self-efficacy related to responding to disruptive behaviors and (2) evaluate the effectiveness of CR training.

The rigorous two-step Lynn process for content validity was followed in developing the Responding to Disruptive Workplace Behaviors Scale (RDWBS). The first phase, the Development Stage, involved a thorough literature review to describe the full domain of self-efficacy related to responding to disruptive behaviors and to guide item development. Results revealed that self-efficacy is reflected in an interaction of four constructs: cognition, past behavior, affect, and motivation. Aligning with the literature, items developed for the RDWBS were designed to address these four constructs in addition to measuring overall self-efficacy.

In the second phase, Judgment-Quantification Stage, an expert panel of six individuals with expertise in instrument development and SCT established validity/relevance. Scale items were rated on a 1-4 scale with anchors of 1 = "Not relevant at all" and 4 = "extremely relevant". A content validity index (CVI) was calculated for each item on the scale (I-CVI) by averaging assigned scores and for the scale as a whole (S-CVI). Items with I-CVI scores  $\geq .78$  were considered acceptable for inclusion on the final RDWBS, without major revision. Only two items scored below this accepted benchmark. These items were revised according to panelist feedback for improving clarity and wording and were subsequently retained on the instrument for piloting. The S-CVI was calculated as the proportion of items scoring an average of 3 - 4 points on the relevance scale (S-CVI/Ave). The final S-CVI/Ave = 1, indicating that all items were considered relevant reflections of measuring this domain-specific self-efficacy. Finally, a social desirability item with content aligning with the scale items was added to the final scale for piloting.

The RDWBS was subsequently piloted among senior nursing students (N = 450). Exploratory factor analysis (EFA) was conducted utilizing oblique and orthogonal rotations with the Eigenvalue cutoff set at 1.0. The presence of two factors was revealed through EFA accounting for 63% of variance among participants' responses. These factor loadings were identical with both types of rotations utilized. The first factor accounted for 46% of variance and included items measuring overall self-efficacy, cognitions, past behaviors, and motivation. The second factor accounted for the remaining 17% of variance, reflecting items measuring affect. The final RDWBS also demonstrated high internal scale consistency by a Cronbach's  $\alpha = .889$  and included a total of 13 items measuring self-efficacy to respond to disruptive behaviors in the nursing workplace.

Disruptive behaviors are an unfortunate yet common aspect of the nursing workplace and contribute to a sequela of negative consequences for nursing staff, patients, and organizations. Fortunately, CR training can prepare nursing students to respond effectively to these disruptive behaviors prior to entering the workplace. This instrument is the first of its kind to provide a valid and reliable instrument that nurse educators can use to measure the effectiveness of CR training on increasing response self-efficacy among nursing students. Additional research is needed to further refine the RDWBS as well as to evaluate CR training techniques for improving nursing education practice and retaining newly licensed nurses in the workforce. (750 words)

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## A 08 - Responding to Uncivil Behaviors

### An Examination of Cognitive Rehearsal to Assist Nursing Students With Uncivil Behaviors

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#### Abstract

Incivility is a major threat to nurse safety. Researchers have identified incivility as a problem in the nursing profession (Christie & Jones, 2013). A tragedy of incivility has been described as a psychological phenomenon decreased a nurse's ability to deliver optimal patient care and compromised patient safety (Christie & Jones, 2013). Additionally, nursing students' lack of status and power make them especially vulnerable to be victimized due to lack of hierarchy status (Christie & Jones 2013) Nursing students are particularly vulnerable to incivility, which may have led to further abuse and bullying. The continued bullying has resulted in students leaving the profession, adding to the nursing shortage (Clarke, Kane, Lafreniere, & Rajacich, 2012). Also, the negative effects of incivility toward student nurses mirror profession nurses' uncivil behavior which may cause minor to severe psychological effects (Clarke, Kane, Lafreniere, & Rajacich, 2012). Victims of uncivil behaviors reported a decreased sense of well-being, physical health complaints, and depressive symptoms that resemble post-traumatic stress disorder (Dehue, Bolman, Vollink, & Pouwelse, 2012). A tragedy of the uncivil psychological phenomenon was that it decreased a nurse's ability to deliver optimal patient care and compromised patient safety (Christie & Jones, 2013). This consequence is a direct correlation to the nursing shortage, which is an important concern for the profession (Shaeffer, 2013). Incivility may interfere with student nurses' professional development in nursing school, and ultimately cause nurses to leave the nursing profession (Clarke, Kane, Lafreniere, & Rajacich, 2012, Rad & Moonaghi, 2016). Nursing students, in undergraduate and graduate settings, are particularly vulnerable to incivility. The education of incivility among nurses increased their level of awareness, and enhanced skills may (a) decrease the number of nurses leaving their first employment role, (b) diminish disruptive behavior, (c) combat the future nurse shortage, and (d) recruit additional nurses into the workforce (Embree, Bruner, & White, 2013). Subsequently, knowledge of the incidence of nurse-to-nurse incivility served as a guide for all workers to be accountable for incivility (Embree et al., 2013), Rad & Moonaghi, 2016)).

An innovative yet successful solution of cognitive rehearsal could be a milestone toward improving health-related outcomes and patient satisfaction metrics (Fehr & Siebel, 2016). The use of cognitive rehearsal could be the variable solution to teach nursing students the application of cognitive rehearsal in the workplace. One solution to impede incivility has involved using cognitive rehearsal (Griffin and Clark, 2014). Involved in four steps, cognitive rehearsal is a systematic approach to thinking that recognizes: awareness, automatic thoughts, processing new received information, and formulating a response against incivility (Griffin and Clark, 2014). The quantitative design which was used to test the assumption that cognitive rehearsal would help decrease the incidence of incivility. The use of the pretest and posttest surveys, provided evidence to support the application of cognitive rehearsal as a teaching-learning strategy. The statistical analysis used the one-way analysis of covariance (ANCOVA) test. The ANCOVA test examined the influence of the independent variable on the dependent variable using a regression analysis. The results of the ANCOVA were not significant, suggesting that there were not statistically significant differences in the STSS-W posttest scores between the groups while controlling for STSS-W pretest scores. The ancillary, independent sample *t*-tests were conducted and results indicated that there were not significant differences in the STSS-W scores between the two groups. A series of dependent sample *t*-tests were conducted and results indicated that there were significant differences between STSS-W pretest and posttest scores. Thus, time appeared to be a key factor in the change between test scores but the group placement did not seem to have a strong effect. The data revealed both similarities and differences from calculating the frequencies and percentages of the results. Future recommendations include: nurse educators and nursing students become aware of incivility and use caring behaviors in their experiences. Researchers recommended more diverse nursing participants and the need to study larger nursing school populations. The effort to like theoretical origins to incivility, will could clarify the conceptual frame of incivility (Oyeleye, Hanson, O'Connor & Dunn, 2013).

An innovative yet successful solution of cognitive rehearsal could be a milestone toward improving health-related outcomes and patient satisfaction metrics (Fehr & Siebel, 2016). The use of cognitive rehearsal could be the variable solution to teach nursing students the application of cognitive rehearsal in the workplace. One solution to impede incivility has involved using cognitive rehearsal (Griffin and Clark, 2014). Involved in four steps, cognitive rehearsal is a systematic approach to thinking that recognizes: awareness, automatic thoughts, processing new received information, and formulating a response against incivility (Griffin and Clark, 2014). The quantitative design which was used to test the assumption that cognitive rehearsal would help decrease the incidence of incivility. The use of the pretest and posttest surveys, provided evidence to support the application of cognitive rehearsal as a teaching-learning strategy. The statistical analysis used the one-way analysis of covariance (ANCOVA) test. The ANCOVA test examined the influence of the independent variable on the dependent variable using a regression analysis. The results of the ANCOVA were not significant, suggesting that there were not statistically significant differences in the STSS-W posttest scores between the groups while controlling for STSS-W pretest scores. The ancillary, independent sample *t*-tests were conducted and results indicated that there were not significant differences in the STSS-W scores between the two groups. A series of dependent sample *t*-tests were conducted and results indicated that there were significant differences between STSS-W pretest and posttest scores. Thus, time appeared to be a key factor in the change between test scores but the group placement did not seem to have a strong effect. The data revealed both similarities and differences from calculating the frequencies and percentages of the results. Future recommendations include: nurse educators and nursing students become aware of incivility and use caring behaviors in their experiences. Researchers recommended more diverse nursing participants and the need to study larger nursing school populations. The effort to like theoretical origins to incivility, will could clarify the conceptual frame of incivility (Oyeleye, Hanson, O'Connor & Dunn, 2013).

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## A 09 - Student Recruitment and Retention

### Discovering the Hidden Forces of Successful Recruitment and Retention of African Americans in BSN Programs

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#### Abstract

**Introduction:** A mismatch exists between the African American population and the number of African American nurses. White non-Hispanics compose 69.3% of the nursing workforce with a baccalaureate as opposed to 10.7 % of African Americans (American Association of Colleges of Nursing, 2015). The National League for Nursing (2014) reported an increase in enrollment of minorities in basic nursing programs by 2% from 2012 to 2014. However, once stratified by race, African Americans' enrollment has dropped from 12.9% to 12.2% as compared to Hispanics that have increased from 6.8% to 8.1%. Although many initiatives have been made to recruit and retain students in different nursing programs, very few have specifically conveyed the experiences of African Americans concerning their recruitment and retention in BSN programs to increase their representation in nursing workforce (Dapremont, 2014; Institute of Medicine, 2015; Murray, 2015; Sbaraini, Carter, Evans & Blinkhorn, 2011). The purpose of this qualitative study is to investigate the driven forces behind successful recruitment and retention of African Americans in BSN programs.

**Method, Sample and Data Collection:** A field test was conducted to evaluate the interview questions that would be presented to the participants for proper wording (Schmidt & Brown, 2012). Panel was composed of four doctorally prepared educators. Once the experts concurred that the interview questions adequately addressed the research questions and aligned well with the purpose of the study, approval was obtained from the University's Institution Review Board (IRB). Permission was also solicited and obtained from the Nursing Director to use the premise as interview site and distribute letters requesting volunteers from recent, African American, nursing graduates who had completed their BSN. The participants were born and raised in United States, and resided in the mid-Atlantic region. Furthermore, these graduates were between 25 and 45 years old (Charmaz, 2014).

The letter indicated the researcher's office as the site of the interviews. All efforts were made not to provide identifiable information about the graduates nor the institution. All of the aspects of involvement were explained to the participants in clear and concise language. The consent form included clauses such as: the reason the participants were invited to take part in the study, the permission to audiotape the interviews, the information about the researcher, the purpose of the study, the location and duration of the study, and the potential risks and benefits of the study. The right to withdraw at any time during the research process was also inserted (Marczyk, DeMatteo & Festinger, 2005). All documents and data were stored electronically on a password-protected jump drive (USB drive) or in a locked filing cabinet located in the researcher's office to which only the researcher has access. Three years after the study completion, all of the information obtained from the participants will be destroyed (Schmidt & Brown, 2012).

Fourteen participants were engaged in-depth and face-to-face interviews for the data collection process. After demographic data were objectively collected through close-ended questions, the remainder of the interview was composed of open-ended questions to allow the participants to narrate their responses (Bendasolli, 2013; Maykut & Morehouse, 1994). An interview guide, composed of nine semi-structured questions, was used to ascertain the questions were answered. The interviews were conducted in English and a copy of the verbatim transcript for verification and correction was provided to each participant. Each interview lasted approximately 45 to 55 minutes. The interview started by acquiring demographic data from the participants, which included age, number of American generations, years of practice as a BSN, year of graduation from the BSN program, place of birth, zip code of residence, and current level of education (Charmaz, 2014; O'Reilly & Parker, 2013).

**Data Analysis:** The interview responses were transcribed line-by-line. The qualitative software NVivo 10® (2014) was used to organize the data. During open coding the collected data were assembled into building blocks (Walker, 2012). Axial coding consisted of conducting an in-depth and sophisticated analysis to find the themes around which the other concepts pivoted (O'Reilly, 2013). The researcher used an iterative and cyclical approach to data analysis to constantly compare data collected within each interview and across other interviews until data saturation signaled the need to discontinue the effort of collecting and analyzing further data (Charmaz, 2014). The final step was characterized by the emergence of four themes: (a) honoring the silent contract commitment, (b) uncovering inner strengths, (c) awaking the altruism within, (d) sacrificing on purpose.

**Results:** Theme 1 (honoring the silent contract commitment) is a description of the graduates' perceptions and experiences of their commitment to themselves and others who contributed to their success in the program. The participants used terminologies such as "determination to break the cycle" to describe their perceptions of the inner strengths needed to enroll, be retained, and successfully graduate from the program. The data for this theme 1 also revealed participants' perceptions of how their commitment to honor "a silent contract" between themselves and others served as driven force for their success in the program. In Theme 2 (uncovering inner strengths), the participants provided data on the inner strengths cultivated or discovered to be successful in the program. The participants perceived their intention to be highly educated in terms of "self-actualization" and "true north discovery". Although the indicated inner strengths help their recruitment, data also revealed the use of synonymous terminologies such as "self-confidence" and "self-esteem" to describe participants' perceptions of other inner strengths needed to survive the rigor of the BSN program and succeed. Theme 3 (awaking the altruism within) emerged from five terms: advocacy, standing in the gap, be present, and role modeling. The participants used these terms frequently to describe their perceptions of their function in the community as the impetus for their successful recruitment and retention in the BSN program. The participants described their function they assume in communities where there is a lack of health educators, role models, and presence of health authorities to empower members to advocate for themselves or to advocate for those who cannot do so for themselves. The data for theme 4 (sacrificing on purpose) supported the personal adjustments the participants had to make to be recruited and retained in the program. The participants described the ways they sought available resources and how humility helped them acknowledge and confront their academic weaknesses. The graduates also perceived the need to relinquish old habits and to adopt new ones as necessary to their success.

**Discussion and Limitations:** The above results describe how African American students relied on their inner skills and dispositions for their successful recruitment and retention in a BSN program. This study suggested other innovative recruitment and retention approaches that are more effective as a bundle, instead of as isolated strategies (Prins & Mooney, 2014). This study reiterated the need to include experiential learning as a teaching strategy to increase the program visibility and to use the community as the classroom to offer students opportunity to transfer their theoretical knowledge into practice. Finally, this study revealed how African American students perceive experiential learning as one of the best learning platforms. The experiential learning helped awaken the altruist within the BSN graduates to make decisions, advocate, stand in the gap, and role model in their community. The research findings captured how, during different experiential learning activities, the students learned to take advantage of their relatedness to create partnerships with the community members, provide services, and influence their health behaviors. Nurse educators can use this revelation as stimuli to update resources in their programs. Nontraditional strategies should be used. Curricula, pedagogical organizations, tests, and instructions should be redesigned (Porr, Brennan-Hunter, Crossman & Parsons, 2014). These researchers' studies may also help the educators to identify and capitalize on students' inner skills and dispositions.

The researcher recommends conducting studies in multiple states to verify whether geographic differences are relevant. A longitudinal study, involving students in Historically Black Colleges and Universities and predominantly Caucasian programs could verify how learning context influences the students' perspective of their experiences with their recruitment and retention in BSN programs.

**Conclusion:** Students' success was largely related to their psychological state. Those who brought to bear inner skills such as sense of commitment, self-actualization, self-confidence, and self-motivation pursued their goals and succeeded in the nursing program. The nursing education must undergo radical transformation of curricula, course offerings, and learning approaches. Finally, nursing leaders and educators must design new performance indicators to accurately measure the effectiveness of learning activities. The findings of this study are merely the point of departure of a chain of actions that are needed to accomplish social justice. Increasing the number of African Americans in the nursing workforce may lead to increase trust and participation in research studies for the discovery of effective management or a cure for health issues that specifically affect African Americans.

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## A 09 - Student Recruitment and Retention

### Weathering the Perfect Storm: A Multifaceted Strategy to Improve Nursing Student Retention

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#### Abstract

The purpose of the presentation is to share an experience in one BSN program during a time of significant challenge and change. Implications for program improvement, increased nursing student retention and ameliorating the nursing shortage are discussed. The relentless nursing shortage seems to resist every effort toward relief. The most recent information from the U. S. Bureau of Labor Statistics (2015) listed 2.8 million vacant nursing positions, with a 16% increase in that number expected by 2024, or 450,000 more vacancies. Twenty-one percent of U.S. hospitals have a nurse vacancy rate above 10% (ANA, 2017), with an estimated 550,000 nurses retiring by 2022.

Factors related to nursing workplaces; the physical and psychosocial stress of the work; and limited nursing school placements due to faculty shortages are placing increasing pressure on healthcare agencies and educators to manage more complex care with less experienced nurses than ever before.

Given the current vacancies and the impending retirement of a large percentage of the workforce, colleges and universities are examining nursing student retention more intensely. In the U.S., almost 50% of students do not progress in nursing programs (Mooring, 2016). Problems related to nursing student retention and the shortage of nurses are not limited to the U.S. In Canada, the percentage of students lost to nursing school progression is 25%; in Australia, 10-40%; in the U.K., 27-40% (Mooring, 2016).

Strategies to improve retention include identifying student-candidates capable of the rigorous work; identifying at-risk students who are already enrolled; establishment of mentoring/tutoring/coaching/advising relationships; standardized instruction and testing; and remediation efforts such as supplemental courses aimed at enhancing student critical thinking (Freeman & All, 2017; Hopkins, 2008)

The author describes one instructive experience faced by the leaders of one BSN program during a time of significant challenge and change. The perfect storm included (1) the introduction of both a revised traditional BSN curriculum and a new second-degree BSN curriculum; (2) a decreasing NCLEX-RN pass rate; and (3) increasingly tense student-faculty relationships. Administrators, faculty, and a few influential students rallied to respond to these nursing academic challenges. Scientific theory holds that knowledge is achieved by altering one element at a time, so that results can be measured and assessed. In the case presented, urgency for improvement did not allow for individual changes. What is postulated here, interestingly, is that it was the layering of strategies that had the intended effect. The program was layered with remediation plans (Keller, 1968); with academic coaching (Brown-O'Hara, 2013); with standardized instruction and testing; and with faculty development.

After the first year of the improvement plan, the greatest changes were in faculty-student relationships. From the outset, administrators were transparent about the seriousness of the issues, and solicited student feedback and cooperation. As faculty members and students engaged in improvement activities, trust between faculty and students improved. By the second year, results of the interventions continued as NCLEX-RN scores improved and curricular adjustments began to show steady improvement in satisfaction.

Attendees will leave the session with ideas, tools, and motivation that can be applied in programs of all sizes to improve nursing student retention.

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## A 10 - Workplace Violence Addressed in Education

### Nurse Educators' Knowledge, Attitudes, and Practice of Horizontal Violence Measured Through Dimensions of Oppression

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#### Abstract

A paradox exists within the profession of nursing. Despite the fact that nursing is known as the caring profession, empirical evidence demonstrates that nurses do not care well for their own. In fact, an oft quoted statement has been that nurses eat their young. The phenomenon of horizontal violence (HV) is an international problem within the nursing profession (McKenna, Smith, Poole & Coverdale, 2003; Randle, 2003). HV is described broadly as any unwanted hostility or aggression within the workplace and is empirically demonstrated to be connected to oppressed group behaviors (Roberts, DeMarco & Griffin, 2009). Oppressed group behaviors are the result of powerful groups determining what is valued. This devaluing leads to marginalization and the less powerful group develops low self-esteem as well as a silent voice.

Described as nurse-to-nurse aggression, characteristic behaviors of HV within the nursing profession can be overt or covert (Vessey, et al. 2010; Bechner & Visovsky, 2012). Overt examples include ignoring or minimizing concerns, or direct sabotage; while covert behaviors include making sarcastic comments or belittling gestures (Conti-O'Hare & O'Hare, 2003; Hastie, 2002; Longo, 2007). In HV a power imbalance may or may not exist. We know empirically that the novice nurse first experiences HV as a student and HV continues to exist at every level of the nursing profession (Longo, 2007; Stanley, Martin, Michel, Welton & Nemeth, 2007; Vessey, DeMarco, Gaffney & Budin 2009). Abusive behaviors associated with HV are psychological as opposed to physical and have a significant impact on the nurse as well as the patient. The Joint Commission issued a Sentinel Event Alert (No. 40) in 2008 describing these characteristic behaviors and states that they "undermine a culture of safety."

Cyclical behaviors which are characteristic of HV are passed on from the more experienced nurse to the novice nurse (Farrell, 2001). This cycle is believed to perpetuate HV as these characteristic behaviors become culturally embedded within the nursing profession when negative behaviors are passed on from one generation of nurses to the next. The literature suggests that HV proliferates through a culture which exists in nursing whereby there is an acceptance of nurse-to-nurse abuse as a professional norm (Roberts, 1983; Roberts, Demarco & Griffin, 2009; Farrell, 2001; Sofield & Salmond, 2003; Randle, 2003).

This study uses a newly validated instrument (NEKAP-HV©) and a national sample of nurse educators (n=254) and explores their knowledge, attitudes and practice of horizontal violence measured through dimensions of oppression.

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## A 10 - Workplace Violence Addressed in Education

### Addressing Workplace Violence in Prelicensure Curriculum: Development, Administration, and Evaluation of an Innovative Teaching Bundle

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#### Abstract

The burden of violence directed at workers in health care settings - particularly violence perpetrated by patients and visitors - is well-documented (Gomaa et al., 2014; Pompeii et al., 2013). Research suggests nursing students are exposed to violence as well, through clinical learning experiences and/or paid caregiving roles (Çelebioğlu, Akpınar, Küçükoğlu, & Engin, 2010; Ferns & Meerabeau, 2008; Hinchberger, 2009; Magnavita & Heponiemi, 2011), a reality that supports the National Advisory Council on Nurse Education and Practice's call for formal and informal education and training to help students recognize, prevent, and mitigate workplace violence (WPV) (NACNEP, 2007). Nurse educators are well-qualified to teach about occupational hazards, including WPV, but such concepts are not systematically evident in pre-licensure curricula, effective pedagogical strategies related to such concepts are limited, and students may leave educational programs not realizing the significance of workplace safety to their practice.

To address this gap, learner experiences and needs related to WPV were identified, lecture material and situational trigger films related to WPV were created, and immersion simulation experiences were developed. This bundle of activities led to the implementation of a dynamic pedagogical strategy that addressed all domains of learning: cognitive, psychomotor, and affective (Bloom, 1956). Trigger films are short films that are used to engage the affective domain (Molloy, Sabol, Silva, & Guimond, 2016). Immersion simulation experiences are widely used throughout modern nursing curricula to teach decision-making and psychomotor skill development through replication of patient scenarios in a safe environment (Hayden, Smiley, Alexander, Kardong-Edgren, & Jeffries, 2014). While the use of trigger films alone or the use of immersion simulations alone can be effective, when coupling the two strategies in a controlled environment, the learning effect may be enhanced.

This presentation will detail the authors' experiences in conducting the needs assessment and designing the pedagogical interventions aimed at increasing students' understanding around patient/visitor-perpetrated violence and best-practice prevention and mitigation strategies. Such interventions recognized the existing typology of workplace violence and integrated conceptual models applied to violence prevention. As such, they served as an effective approach to prepare future nurses to recognize and respond to one of the more well-documented occupational hazards facing health care workers today.

*Needs Assessment.* The needs assessment involved self-administration of an anonymous, brief (<5 minute) survey of pre-licensure students. The survey tool was used in a completed CDC/NIOSH R01 (Pompeii et al., 2016; Pompeii et al., 2015; Schoenfisch et al., 2015) and edited to reflect the target population. The definition of violence included physical assault, physical threat, and verbal aggression. Participants were asked to provide information about their demographics, work history, clinical requirements, and experiences of patient/visitor-perpetrated violence. An open-ended question sought concerns and recommendations to improve occupational safety and health for nursing students. Data were collected in REDCap (Harris et al., 2009), and statistical analyses were conducted in SAS (SAS Institute, 2014).

The survey was completed by 58 pre-licensure students. Most were female (84%), in their first year of the program (81%), and less than 35 years old (88%). More than forty percent (43%) had some kind of paid work experience in a health care setting (e.g., as a nursing assistant), and nearly all (98%) had experience in the clinical setting as part of their curriculum requirements. Overall, 28% of pre-licensure students experienced at least one episode of patient/visitor-perpetrated violence in the past 12 months as part of paid work in healthcare or during a nursing program clinical experience. Half of these events (50%) were verbal in nature; the other half included a physical threat and/or physical assault. Over one-third (38%) of pre-licensure students had thought of changing careers as a result of patient/visitor-perpetrated violence. WPV prevention training was recommended by participants including: training with various occupational groups involved in responding to violent events (e.g., nursing, security), de-escalation training, resiliency training, and simulation-based training.

*Didactic Teaching.* In the first-semester course "Health and Wellness Across the Lifespan," a lecture was presented (n=142 students), covering the topics of occupational safety and health (including WPV) among nurses, with attention paid to the epidemiology of the problem, key players (e.g., federal and state agencies, accrediting bodies, professional organizations), and current WPV prevention approaches.

*Trigger Film and Immersion Simulation.* Students attended a 10-minute pre-brief in which they met the involved faculty and content experts and learned about the film and simulation process. Then, small groups of students (n=5-6/group) viewed the one-minute trigger film depicting a patient-perpetrated violent event. The film was tailored to local needs and the student population by faculty and other content experts after review of the literature and available materials from national and international organizations (e.g., Crisis Prevention Institute, National Institute for Occupational Safety and Health). Immediately after viewing the film, a behavioral health expert facilitated an 8 to 10-minute debriefing period for students to share their emotional response to the scenario. Students then transitioned to a 10-minute immersion simulation in which they were confronted with an escalating situation including a (script-led) verbally aggressive hospitalized patient, played by a student volunteer; a second student volunteer served as the caregiver. The simulation provided an opportunity to engage in de-escalating techniques and was followed by a 15-minute small group debrief with content experts.

A pre-test and post-test was administered to evaluate changes in students' knowledge related to WPV surrounding the trigger film and immersion simulation. A majority of students "strongly agreed" that after participation they were able to "recognize behaviors of an escalating family member or patient" (65%), "discuss how to maintain personal safety in an escalating situation (75%), and "identify aspects of the clinical environment they may impact the safety of the workplace staff" (64%). Students conveyed general satisfaction with the addition of WPV content into their course work, with emphasis on its conduct in a simulated, safe environment and the inclusion of content experts. They also offered suggestions on how to improve the trigger film/simulation.



Details surrounding the needs assessment, content development, implementation of the intervention, pre-/post-test results, and lessons learned will be shared during the presentation. Conference attendees also will be invited to engage in a discussion about implementing this strategy in their own academic settings as a way to prepare students for future clinical practice. Materials will be made available to conference attendees upon request.

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## A 11 - Clinical Education Strategies

### Virtual Interprofessional Simulation: Design, Delivery, and Impact

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#### Abstract

**Background/Rationale:** Simulation-based training (SBT) is a powerful and well-established practice of experiential learning that facilitates the acquisition of interprofessional knowledge, skills, and attitudes and fosters the development of critical thinking skills at the individual- and team-based levels (Paige Barbee, Brown, & Rojas, 2015). These skills are foundational to interprofessional education (IPE) and practice (Jeffries, Swoboda, & Akintade, 2015), and represent a leading focus for nurse faculty as they incorporate new teaching and learning strategies to prepare the future nursing workforce to deliver safe, quality, and patient-centered care (Institute of Medicine, 2011). Creative alternatives are needed to traditional face-to-face teaching and learning when time, distance, course schedules, and other constraints serve as barriers to engaging nursing and health professions students in true experiential IPE learning. The use of virtual reality software as a platform for simulation is one example of an effective vehicle to deliver clinical case studies that foster experiential learning (Verkuyl et al., 2017) and clinical decision-making (Foronda, Hudson, & Budhathoki, 2017).

Teaching with the use of virtual reality simulation provides new opportunities to promote development of real-world knowledge, skills, and attitudes with a broad audience of learners (Leggette, et al., 2012) in a non-threatening learning environment without risk to patients (Paige et al, 2015). A review of studies evaluating education through the Second Life™ platform for simulations suggests effective transferability of theoretical knowledge from the classroom into practice (Irwin & Coutts, 2015). Virtual simulation assists learners to translate course content into real-world scenarios while promoting role socialization (Anderson, 2013). This orientation to the roles and responsibilities of interprofessional care providers is one of four core competencies for effective interprofessional practice (Interprofessional Education Collaborative, 2016). Further, the use of a Second Life™ virtual simulation may positively impact learner attitudes about team-based practice, which is an important focus for the improvement of care delivery in the real world (Caylor, Aebersold, Lapham, & Carlson, 2015).

Utilizing a virtual simulation platform, such as Second Life®, provides nurse educators with an innovative, evidence-based teaching and learning tool for bringing together students from diverse health professions to collaboratively practice the delivery of safe, quality, patient-centered, and team-based care.

**Method/Methodology:** A palliative care conference scenario was developed for online simulation delivery using the Second Life® virtual world platform integrated with an online learning management system and scheduling application. With faculty performing in the patient role, students led a care conference intended to assist the patient in making end-of-life care decisions based on a new diagnosis, prognosis, and treatment plan. The virtual simulation included: preparatory learning material and technology tutorials, a scheduled simulation event for groups of 6-8 students representing at least three of the four health professions programs, and a guided asynchronous debrief discussion forum. The debrief discussion featured self-assessment of demonstrated interprofessional skills and evaluation of interprofessional competencies essential to collaboration. A mixed method exploratory evaluation design was used to examine student outcomes associated with the piloted virtual simulation learning module. A non-random purposive sampling approach was used (n = 31). Quantitative data were collected using the Norris et al. (2015) five subscale (Teamwork, Roles, and Responsibilities; Patient Centeredness; Interprofessional Biases; Diversity & Ethics; Community-Centeredness) Interprofessional Attitudes Scale (IPAS) to assess attitudes related to interprofessional core competencies pre- and post- implementation. Qualitative data were collected using a post-simulation survey.

**Results/Outcomes:** A Wilcoxon signed rank test was performed to analyze pre- and post- implementation survey data. Results indicated that post-test ranks were significantly (significance level .05) higher than pre-test ranks for two Teamwork, Roles, and Responsibilities subscale items: thinking positively about other health care professionals ( $z = -2.333, p < .020$ ) and necessity for health care trainees to learn together ( $z = -2.321, p < .020$ ).

Thematic analysis was performed on the qualitative data. Findings support simulation-based training (SBT) as an effective vehicle to provide students with an opportunity to practice interprofessional teamwork. Collaboration and communication were cited as the most valuable outcomes of the learning experience.

**Conclusions:** Second Life® provided a creative and effective alternative to traditional face-to-face teaching and learning. Students emphasized the impact of the learning experience on both their willingness to work as a team and commitment to encouraging collaboration between professions. Students anticipated these new values as most likely to positively influence their future practice. While some Second Life® functionality improvements are needed, the availability and cost of the software provides a tool for virtual interprofessional simulations that can be feasibly implemented. Translating evidence from virtual interprofessional simulations advances evidence-based teaching practice in palliative care.

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## A 11 - Clinical Education Strategies

### Dedicated Education Units and Traditional Units: A Comparison of Learning Outcomes

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#### Abstract

Designing a quality clinical learning experience for undergraduate nursing students is challenging. Reports by the Carnegie Foundation, Institute of Medicine (IOM) and Robert Woods Johnson Foundation call for nurse leaders to improve how nurses are prepared and educated by reducing the gap between classroom and clinical teaching. In addition, the IOM's *Future of Nursing* report encourages collaboration among organizations to better prepare nurses to deliver high-quality care.

The Dedicated Education (DEU) Model of nursing practice education is one strategy to bridge the gap between classroom and clinical teaching and to enrich the quality of students' learning opportunities.

A DEU model changes the traditional role of the faculty and the unit staff in their provision of clinical education to students. In a traditional model, a school of nursing faculty member has primary responsibility for a group of 8 to 12 students, and each student is assigned to specific care delivery activities by the faculty member who also supervises the delivery of care. The involvement of unit-based staff in a student's provision of nursing varies based on the relationships established by the individual faculty member. In some settings unit-based staff may have limited awareness of students' clinical expectations, their designated learning objectives, or their prior knowledge. In a DEU, each nursing student is paired with a unit based nurse for the duration of the clinical rotation. The student and the nurse care for an assignment of patients together, with the student assuming increasing responsibility over time.

The purpose of this study was to evaluate student confidence in performing nursing role responsibilities and to measure learning of specific nursing skills performed during a clinical learning experience.

This was a quasi-experimental study using a pre-test/post-test survey design. Students are randomly assigned to a clinical setting by a coordinator. Students completed a survey to measure level of comfort and skill performance before and after the clinical rotation. A total of 96 students, 48 in a DEU and 48 in a traditional unit, completed both surveys. The survey included the Casey-Fink Nursing Student Transition Survey and 15 Likert scale items focused on self-perceived comfort in performing specific nursing procedures, specific to the clinical course objectives. Two items collect data on the participant's prior work experience in health care and their desire to work in this setting after graduation.

The analysis examined the magnitude of the change in level of comfort and skill performance before and after the clinical experience. The data revealed that students in the DEU performed a greater number of skills, reported a higher level of comfort and confidence in skill performance and had a greater magnitude of change in pre and post clinical scores on the Casey-Fink Student Transition Survey.

This study provides a beginning body of evidence that the DEU is a positive factor in student learning in the clinical area. Future studies need to examine the impact of DEU experiences on the students' transition to new RN employee in the practice organizations.

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## B 01 - Art Therapy in Mental Health

### The Blending of Art and Science With Live Actors in Psychiatric Simulation

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#### Abstract

At the heart of the nursing profession is the ability to demonstrate professionalism, to be therapeutic in one's communication, the ability to communicate caring behaviors in verbal and non-verbal interactions and the ability to provide safe, high quality care to patients. Quite often nursing students in a psychiatric hospital setting have minimal exposure to patients as often these patients are in team meetings, groups and individual sessions with their therapist. Subsequently, the exposure to the various psychiatric disorders, the accompanying symptoms and the ability to practice therapeutic communication is limited.

To compound the problem, there are limited psychiatric settings for students to obtain their clinical experience due to the closure of psychiatric institutions over the years and the increased competition with other nursing schools for limited clinical placements. Additionally, patient safety initiatives at acute facilities have reduced the number of nursing students permitted on a patient unit at one time which creates fewer educational opportunities (Hayden, Smiley, Alexander, Kardong-Edgren & Jeffries, 2014).

To meet curriculum objectives, live actors are frequently used as patients in simulation (Keltner, Grant, McLernon, 2011). Live actors have also been used in response to the growing number of patients with a psychiatric diagnosis being treated on medical surgical floors at Birmingham VA Medical Center. The US Department of Veterans Affairs Nursing Academy (VANA) in a joint effort between the Birmingham VA Medical Center and the UAB School of Nursing, developed mental health simulation videos with live actors. Among the top 10 diagnoses treated on the medical surgical floors, three are related to mental health (i.e. posttraumatic stress disorder, substance abuse, schizophrenia) (Keltner, Grant, McLernon, 2011).

According to Webster (2011), patients with mental illness are often unable to clearly express their needs due to their illness or barriers related stigma. Furthermore, student anxiety may create additional challenges that impact the development of the therapeutic relationship. Although communication is not the only focus of patient-centered care, it provides a strong foundation for the provision of care that recognizes and includes the patient as a full partner in his or her care. The possession of effective communication and continuous assessment of one's own communication techniques is essential. The nursing student who does not possess these skills will be challenged with eliciting patient values and collaborating with the patient to plan and provide quality care.

Incorporating actors as psychiatric patients is useful because nursing students have an opportunity to improve their skills in a safe and nonthreatening environment. This teaching strategy represents an opportunity for immersive, interactive and reflective simulation experiences to enhance nurses' clinical practice (Keltner, Grant, McLernon, 2013). Although the literature contains ample examples of simulations used to teach psychomotor skills, studies involving the use of live actors to teach therapeutic communication is limited (Webster, 2013).

**Purpose:** To meet specific learning objectives in a baccalaureate nursing curriculum, a five week psychiatric experiential experience was provided to the nursing students in a simulated apartment. The aim was to identify the lived experience of nursing students experience with live actors. Second, to identify if skills learned in simulation are transferred to students' capstone hospital experience (120 hours clinical with a hospital preceptor). Third, to determine the effectiveness of this nontraditional teaching strategy.

**Objectives:** Participants will be able to:

1. Understand the sequential approach to the development of live actors in psychiatric simulation.
2. Identify how to institute evidenced based changes in a baccalaureate nursing curriculum.
3. Understand how to incorporate simulation with live actors in the psychiatric clinical component of the curriculum.

**Design and Method:** This IRB approved study was conceptually orientated in Hildegard Peplau's theory of Interpersonal Relations. Using a qualitative design, seven senior nursing students from a traditional baccalaureate program, were asked to transition from a detached observer to an involved performer in a simulated experiential setting. The students were asked to complete an anonymous, open-ended questionnaire after their simulation experience and again after their post capstone experience. Seven textual responses were analyzed. An adaptation of Colaizzi's (1978) method of data analysis was used to extract and describe themes.

**Findings:** Four thematic categories that emerged from the data included: "Change in Expectations" "Improved Therapeutic Communication", "Strengthened Skills" and "Recommended for All". Samples from the thematic analysis are the following: "Simulation has taught me how to provide care on such a different level", "Allowed me to communicate with confidence and empathy" and "Perhaps it would be great experience if nursing students are able to have both experiences; the clinical setting and the experiential learning with live actors. There should be a lab or a class devoted to therapeutic communication perhaps at the start of the nursing program." This thematic analysis provided insight into a contemporary experiential experience for senior nursing students in a baccalaureate accredited nursing program.

**Conclusions:** The results from this research study provide an increased understanding of nursing students' perceptions of this specific educational strategy; live actors in simulation. The students found their overall experience to be positive. Specifically, first, the interviewer having the ability to call a "time out" during an interview to request feedback from peers and faculty. Second, peers could also call a "time out" to assist the interviewer who might have not have inquired about essential information during the interview. Third, students had an opportunity to practice restraint and seclusion documentation which is often not permitted in the hospital setting. Fourth, students were able to conduct an environmental rounds in an apartment constructed specifically for the purpose of conducting simulation with live actors. Lastly, students reflected on their experiential experience in weekly reflection papers with an underline focus to increase their level of self-awareness about their thoughts, emotions and behaviors in simulation.

The faculty found this educational strategy to exceed expectations. The results of this research study has assisted to improve upon the experiential experience for future nursing students at the College. Nursing students entering the Fall 2017 academic semester will all have one day of simulation with live actors along with four weeks of clinical in a hospital setting. Additionally, there is a proposal to move the nursing psychiatric

course from the last semester of senior year to the first semester of Junior year. This course was recommended earlier as study participants identified a need to improve their therapeutic communication skills as well as interviewing skills earlier in the nursing curriculum.

**Clinical Relevance:** Results of this research study provide an evidence based determination with regard to a contemporary and alternative form of learning to the traditional clinical setting. This intensive experiential experience addresses the following QSEN competencies: patient centered care, team work and collaboration, quality improvement and safety. Live actors in psych simulation creates a safe environment for nursing students to improve upon their communication skills with patients. This is critical as therapeutic communication is an essential ingredient to improved patient outcomes.

The results have also changed nursing education's practicum requirement for psychiatry and have the potential to change other specialties like palliative care. Palliative care is a sensitive area that presents its own unique challenges with regard to end of life care.

The blending of art and science with live actors in simulation holds great promise for nursing as a profession whether locally or internationally. In addition to the college level, live actors in simulation can be incorporated on a nursing graduate level as well as the orientation of a newly hired registered nurses in hospitals.

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## B 01 - Art Therapy in Mental Health

### Undergraduate Student Nurses' Perceptions of Art Therapy in Mental Health Settings

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#### Abstract

**Background:** In today's fast paced world of healthcare service delivery learning effective communication skills are imperative for student nurses. These skills and techniques are emphasized within mental health courses as student nurse interactions are viewed as key interventions to foster patient coping, stabilization, and recovery. However, patients with mental illness are not an easy population to communicate with as related to their stress levels and disease processes. This situation is magnified for student nurses who are still learning ways to dialogue with mental health patients and possibly being afraid of saying the wrong thing and further upsetting the patient. The purpose of this study was to explore the perceptions of undergraduate (baccalaureate) student nurses regarding the use of art therapy to promote a therapeutic relationship and communication with mental health patients. A review of the literature revealed a lack of research on this topic.

**Method:** This was a qualitative study using principles of thematic analysis following the process of using focus group interviews for analysis. In this study art therapy is defined as coloring or drawing. Art therapy was rendered in each clinical setting in the form of crayons and paper or coloring books. In some settings student nurses initiated the art therapy while in other settings it was conducted under the direction of an art therapist who primarily provided suggestions for content. The content of the drawings were not included in this analysis. Student nurses and mental health patients actively participated in coloring together on a one-to-one basis in an open, observed area such as in the dining room or in a group setting; all in a locked and secured clinical unit.

**Results:** Major themes found in the study included: student nurses' initial experiences with mental health patients, student nurses' observations of mental health patients, and student nurses' and mental health patients' responses to art therapy. Of significance, student nurses experienced a sense of professional growth with communication skills when using art therapy with mental health patients. Additionally, students reported that art therapy provided mental health patients with a sense of empowerment and improved self-esteem; a trusting relationship was established.

**Conclusions:** The intentional use of art therapy should be integrated into undergraduate nursing education. Further research should be conducted to determine if art therapy is useful with students in clinical settings other than that of mental health. In addition, innovations using art therapy in nursing education and clinical practice should be studied.

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## B 02 - Asynchronous Online Education

### Enhancing Asynchronous RN to BSN Online Instructor-Learner Engagement Using Video-Recorded Assignment Directions: A Descriptive Study

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#### Abstract

Online instructors who convey a personable, enthusiastic class presence promote student engagement for learning (Foronda, 2014). Teaching strategies that use technology are especially important in asynchronous online programs (Quality Matters Standards, 2014) where access to course content must be deliverable 24-hours a day. In this descriptive study, instructor-to-student interactions are assessed before and after four (4) narrated video assignment directions are embedded in an online RN to BSN course.

Learners enjoy the flexibility and accessibility of the online environment (Parsh, 2016). Asynchronous online courses are designed so learners do not need to be present at a particular time for 'class lectures'. Time zones do not impact an online course's availability. Yet, returning RN-to-BSN learners, many new to the online environment, feel anxious and disconnected from their peers and instructor (Button, 2014) while sitting alone with a computer screen. Many have self-doubt that their assignment understanding aligns with the instructor's expectation (Fisher, 2014). Technology is available today to increase personalized instructor presence in fully online asynchronous RN to BSN courses (Fisher, 2014). Specifically in this study, Camtasia © video software was used to produce four short (< 10-minute) instructor-narrated videos introducing assignment directions. The learner can view these screen-capture videos limitlessly, which is especially important to those who learn visually and benefit from repetition (Holland, 2013).

This study looked at 131 learners' questions in two (2) terms of a Public Health Nursing course. Instructor-narrated videos were not used in one course, and were embedded in the second course. Results show that the proportion of learners' course questions was reduced by 34% with video intervention (Z value = 3.8; p < 0.001).

Qualitative data reveal that videos give learners a more personable connection to the instructor by seeing and hearing the instructor on screen-capture videos. Learners, overall, approve of the 24-hour access that videos provide to demonstrate website navigations and assignment examples.

**Conclusion:** This study indicates that using technology for instructor-narrated videos promotes instructor-to-learner engagement. Access to both written and video directions provides learners multi-modal instruction, as evidenced by the decrease in course questions. Around-the-clock video accessibility is especially important for RN learners everywhere who have unpredictable work schedules. Another important, unforeseen benefit was that instructor time was freed-up for other constructive course interactions.

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## B 02 - Asynchronous Online Education

### The Use of Asynchronous Audio Feedback With Online RN-BSN Students

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#### Abstract

**Purpose/Aim:** Adding audio feedback to courses in an online asynchronous RN-BSN program improves students' perceptions of social, cognitive, and teaching presences, and thus, positively effects students' academic satisfaction, achievement, and retention.

**Background/Rationale:** Research tells us that technological pedagogies such as chat, e-mail, and video conferencing contribute to increasing student engagement and instructor-learner interaction. Students report increased learning, social knowledge, and inquiry when technological pedagogies were used in the online course room, such as audio feedback (West, Thomas & Borup, 2017; Carruthers, McCarron, Bolan, Devine, McMahon-Beattie & Burns, 2015; Moore, 1990).

**Theoretical Framework:** Audio feedback in asynchronous online courses is intended to allow students to experience a more personalized instructor interaction. In Moore's (1990) seminal work on the Theory of Transactional Distance suggests that transactional distance exists on a continuum and any educational event is considered to have some aspect of distance. Increases in transactional distance increases learner autonomy, which is the responsibility of students to learn on their own; decrease in distance brings the learner closer to their teachers, the content, and other learners. Moore (1990) further stipulated that an active learning environment should include concepts of learner-instructor, learner-content, and learner-learner interactions. Together all are essential to an online sense of community. The conceptual framework, Community of Inquiry introduced in 2000 by Garrison, Anderson, and Archer dovetails nicely with Moore's theory of online sense of community. Both concur that the use of audio rather than text online feedback may be effective in decreasing transactional distance, therefore, promoting teaching, social, and cognitive presence as perceived by online learners (Garrison, 2011).

**Method/Description:** A quasi-experimental posttest web survey design with a comparison group was used. The participants were a nonrandom convenience sample. The participants in the target population for this study were admitted to the university's RN-BSN program and were enrolled in one of the eight sections of nursing courses selected for the study (N=139). Four sections received audio feedback and 4 sections received text only feedback in their discussion boards. The study used the Community of Inquiry survey comprised of 43 Likert style questions (Garrison, 2011). Subsections addressed teaching presence, social presence, and cognitive presence. Data were collected at week 14 of a 16-week semester. Descriptive statistics were used to analyze the demographic data and SPSS to analyze the survey responses.

**Results/Outcomes:** Results from this quantitative, quasi-experimental study were analyzed using multiple regression. The sample size was large enough to achieve a moderate effect size. The data were normally distributed. The data also met all five standards for multiple regression linearity. Survey data were collected from 43 questions using a 5-point Likert scale. The data indicated that out of the three presences, teaching presence was the most significant predictor of student satisfaction and thus retention. Although, both positive and negative significant effects occurred, the data did not fully support any of the three alternative hypotheses. However, correlational statistics indicated a positive indicator for using audio within the online course in general for introductions and feedback on assignments but not in discussion boards.

**Conclusion:** The data reflected inverse results for teaching presence; both cognitive and social presences demonstrated insufficient evidence to predict a relationship to audio and text discussion board feedback. RN-BSN students perceived an increase in teaching presence when text feedback occurred in the online discussion board. Conversely, the perception of teaching presence decreased when the teacher used audio feedback in the online discussion board. This correlated with the findings of Hew and Wing (2013) on the use of audio versus text feedback in discussion boards.

**Application/Recommendation for Nursing Education:** Advancing technology, for example, using audio feedback to communicate with online students, was intended to allow learners to experience more personalized interactions with instructors. Perceptions of online communities reveal that students feel teaching presence is an important aspect of online learning, as they want available faculty that are willing to provide timely feedback, listen to concerns, and guide them through learning tasks (Richardson, Besser, Koehler, Lim, & Strait, 2016). Although the study described in this manuscript did not empirically support any of the proposed hypotheses, it did provide significant correlations which indicate that different uses of audio feedback in the online course room should be explored, such as audio introductions and assignment feedback and even the use of video (Thomas et al., 2017). The opportunity for further questioning on the constructs of the Community of Inquiry theoretical framework, audio feedback and online nursing education is also recommended.

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## B 03 - Experiential Learning

### Improving Nursing Student Empathy With Experiential Learning

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#### Abstract

**Background:** Nursing is both a science and an art. The quality of the relationship between the nurse and the patient is essential to the healing process. The ability of the nurse to connect with the patient in a way that is meaningful to the patient will determine the patient outcome. Empathy serves as a foundational nursing principle inherent in the nurse's ability to form those relationships from which to care for patients. Empathy is the ability of a person to understand what another is experiencing from the receiver's perspective and the ability to communicate that understanding to the receiver. There exists, however, a need to examine methods for instilling empathic tendency in nursing students. In nursing, empathy is believed to be a necessary component to the nurse-patient relationship.

**Objective:** Evidence shows a decline in empathy specifically noted over time in nursing students who are preparing to graduate and enter the workforce. The practice focused question for this project asked whether an experiential learning toolkit for development of nursing empathy can improve sophomore nursing student empathy as measured via the Jefferson Scale of Empathy. This project was guided by evidence that demonstrated a continued need to measure the effect of activities aimed at fostering empathy in nursing students. The literature provides a sound basis for further exploration into the effectiveness of a toolkit to promote empathy in nurses. Evidence demonstrates that empathy is inherent to the role of the nurse and essential to patient centered care. Additionally, evidence suggests that empathic behaviors can be taught and that experiential learning may be an effective intervention. However, it is unclear at this time what the most effective method of experiential learning may be or at what point in nursing curriculum it should be employed

**Method:** The design for this project was a one group pre and post evaluation of a current healthcare program experiential learning toolkit. The project utilized a toolkit learning activity including case study and discussion in an undergraduate academic setting to assess whether empathy can be fostered in nursing students. Empathy levels were measured pre and post intervention utilizing the Jefferson Scale of Empathy.

**Results:** Analysis demonstrated a 3% increase in overall Jefferson score post intervention indicating an increase in empathic tendency. Of the 20 items on the scale, most scores increased pre to post survey. The findings are suggestive that experiential learning may be a viable strategy to increase empathy in nursing students. This project holds significant value for social change with the potential to identify effective methods to develop student nurses' expression of empathy.

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## B 03 - Experiential Learning

### A Community Engaged Learning Pedagogical Approach to Population Health and Primary Prevention

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#### Abstract

With the shift in healthcare to primary care, health promotion and population health, it is important for nursing students to engage in a variety of learning venues. The need for collaborative practices in the community is an ever increasing necessity. Community Engagement is a signature experience for the students at The College of New Jersey. This opportunity allows students to apply their additional knowledge and enhanced skills to address a community need, as well as develop their own civic skills and clinical skills through an experiential learning opportunity. Projects are guided by the learning objectives of the course as well as the needs of the community. Students in their sophomore year spend 25 hours participating in community engagement in a variety of setting building on their core content in nursing health assessment, nutrition and lifespan classes. This type of community based learning allows the students to care for populations in the community setting that they would typically see in the outpatient settings with chronic conditions, develop patient communication skills with various age groups, practice health promotion and disease prevention and increase their awareness for the relevant health issues of rural and underserved communities.

Students projects varied, some students chose to organize a healthy walking club and/or a gym buddy for students with differing abilities on the college campus. Another group was engaged in the local public school system where childhood obesity and Type II diabetes is prevalent, in a program known as SNACK (Smart Nutrition and Collaboration for Kids). The students participated in recess get up and move activities twice a week. Students also went to TASK (the Trenton Area Soup Kitchen) where they served meals, taught health lessons, performed screenings, and assisted in teaching various topics to students who were earning their GED. Undergraduates provided breastfeeding and parenting classes to teen mothers at Project Teach, a comprehensive educational program which provides pregnant and parenting adolescents with the skills needed to create a positive life for themselves and their children. Finally the students participated with Dawn of Hope Project whose program is designed to provide practical instruction to girls in critical areas such as character development, building self-esteem, embracing their identity, life skills, health and wellness. The students provided educational information sessions on various topics related to health and wellness as well as self-esteem. Students as well as faculty benefit from this type of educational/clinical setting. Students acquire the ability to apply what they have learned in “the real world”, improved social responsibility and citizenship skills, connections with professionals and community members allow for learning and career opportunities and improve assessment and clinical skills. Faculty benefit from new opportunities for research and publication via new relationships between faculty and community partners and it allows networking opportunities with engaged faculty in other disciplines or institutions as well as other healthcare professionals.

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## B 04 - Faculty Training in Simulation

### The Effect of Faculty Training and Personality Characteristics on High Stakes Assessment of Simulation Performance

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#### Abstract

Evaluating clinical competencies of nursing students is essential as faculty prepare them for the healthcare practice environment in which quality, safety, and patient outcomes are of highest priority. As greater emphasis is placed on high stakes assessment of clinical performance in nursing education, the training of faculty evaluators to assure good intra and inter-rater reliability of simulation performance is paramount. Assessment methods must be consistent with the NLN Fair Testing Guidelines for Nursing Education (NLN, 2012). Central to these guidelines is the definition of “fair”; that “all test-takers are given comparable opportunities to demonstrate what they know and are able to do in the learning area being tested” (p.3). Well-designed research studies that investigate all the factors needed for development and implementation of fair and reliable high stakes testing are necessary. This presentation describes the results of a nationwide, experimental study conducted to test the effectiveness of a training intervention in producing intra and inter-rater reliability among nursing faculty evaluating student performance in simulation. The study is an extension of the NLN Project to Explore the Use of Simulation for High Stakes (Rizzolo, Kardong-Edgren, Oermann, & Jeffries, 2015) which evaluated the process and feasibility of using manikin-based high fidelity simulation for high stakes assessment in pre-licensure RN programs. The NLN project resulted in more questions than answers about simulation design, implementation, and performance assessment. Two questions that emerged from the NLN project were: (a) are there specific qualities associated with faculty who are comfortable and consistent in the evaluator role? and (b) what are the best methods to train raters? (Rizzolo, 2014).

These questions guided the research question for this experimental study: What is the effect of (a) a training intervention and (b) faculty personality characteristics on faculty ability to achieve intra/inter-rater reliability when evaluating student performance during high-stakes simulation? With NLN approval, the student performance videos and the Creighton Competency Evaluation Instrument (CCEI) used in the NLN project were used in the experimental study. The CCEI is a performance evaluation instrument that measures 23 skills related to assessment, communication, clinical judgment, and patient safety. The instrument was found to be a valid and reliable instrument to assess clinical competency in pre-licensure students in simulation in preparation for the National Council of State Boards of Nursing (NCSBN) National Simulation Study (Hayden, Smiley, Alexander, Kardong-Edgren, & Jeffries, 2014). The CCEI tool used in this study specifies minimum performance behaviors that are unique to the simulation scenario enacted in the student performance videos. This tool also asked participants to specify if they thought the students performing the simulation were competent. Participants in the study evaluated student performances expected to demonstrate end-of-program level of competence.

Consistent with the NLN project, high-stakes assessment was defined as “an evaluation process associated with a simulation activity that has a major academic, educational, or employment consequence . . .” (Meakim et al., 2013, p. S7). Clinical competence was defined as the ability to “observe and gather information, recognize deviations from expected patterns, prioritize data, make sense of data, maintain a professional response demeanor, provide clear communication, execute effective interventions, perform nursing skills correctly, evaluate nursing interventions, and self-reflect for performance improvement within a culture of safety” (Hayden, Jeffries, Kardong-Edgren & Spector, 2011).

A total of 102 faculty were recruited from nursing programs across the country. Inclusion criteria included full-time teaching status in an accredited associate degree or baccalaureate degree nursing program, experience with simulation, experience with clinical competency evaluation in clinical settings or simulation settings, education in evaluation and measurement, and proficiency with web-based technologies. Participants consented to complete study activities requiring up to 20 hours over a 2 ½ month period. Participants were randomized into control and intervention groups. The study sought to build, through a training intervention, a shared mental model of end-of-program competence in a video recorded simulation performance among participants that had no prior relationship or shared curriculum, but that shared, in theory, a perspective on the clinical knowledge, skills, and abilities needed by students at the end of a pre-licensure RN academic program. The research team designed a basic orientation and an advanced evaluator training module that incorporated most elements of the training methodology established by Adamson and Kardong-Edgren (2012) to evaluate inter-rater reliability for the CCEI and used in the NCSBN’s national simulation study (Hayden et al., 2014). The intervention group received the basic orientation and the advanced evaluator training, while control group participants received only the basic orientation. After receiving the basic orientation or the training intervention, all participants proceeded to the experimental procedure in which student performance videos were evaluated using the CCEI. All participants completed the Clifton StrengthsFinder Inventory, a web-based assessment of normal personality from the perspective of positive psychology (Rath, 2007), and completed a survey that elicited their perspectives on the influence of their personality characteristics on student assessment. A total of 75 participants fulfilled all study activities, with equal numbers remaining in the control and intervention groups.

Descriptive and reliability quantitative analyses were performed to evaluate the effect of training on inter/intra rater reliability in the scoring of the CCEI. Qualitative analysis was conducted to identify themes reflecting the influence of faculty personality characteristics on performance assessment. Participant decisions about student competency underwent qualitative analysis to identify performance factors that influenced evaluation decisions.

The results of this study inform best practices in high stakes assessment using simulation. Descriptive and statistical findings will be presented that extend the results of the original NLN project and suggest principles and methods for training faculty evaluators. The qualitative findings suggest it is important for nursing faculty to be mindful of their strengths when evaluating student performance. The results of this study suggest important

implications for the design, implementation, and facilitation of simulation when used for high-stakes assessment. Ongoing research about the multiple factors that influence high-stakes assessment of clinical simulation using experimental and multi-method designs is recommended.

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## B 04 - Faculty Training in Simulation

### A Shared Mental Model for High-Stakes Simulation Evaluation in Nursing Education

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#### Abstract

Nurse educators provide subjective evaluations of student performance in high stakes simulation. Faculty may use nurse educator standards, best practices, rubrics, and their experience to guide these evaluation decisions. The International Nursing Association for Clinical Simulation and Learning (INACSL), provides nurse educators with Standards of Best Practice: Simulation Participant Evaluation (2016). Required elements for high-stakes evaluation using simulation-based experiences include “trained, nonbiased objective raters or evaluators,” “using a comprehensive tool,” and having more than one rater for each participant (INACSL, 2016, p. S27). However, there is variability in the definition of terminology, criteria, and levels of training in using evaluation tools (Kardong-Edgren, Oermann, Rizzolo, & Odom-Maryon, 2017; Oermann, Yarbrough, Saewert, Ard, & Charasika, 2009). Consequently, subjective evaluation of student performance in high stakes simulation, by its definition, is open to bias and the possibility of being unfair.

One strategy to facilitate valid, evidenced-based methods of evaluation is for faculty to develop a shared mental model (SMM). McComb and Simpson (2014) describe a SMM as “individually held knowledge structures that help team members function collaboratively in their environments and are comprised of the attributes of content, similarity, accuracy and dynamics” (p. 1485). A shared mental model would enable faculty to have a more consistent and standard approach for student assessment (Boulet, Jeffries, Hatala, Korndorffer, Feinstein, & Roche, 2011; Kardong-Edgren, et al., 2017), which should lead to more fair and equitable evaluation of student performance. Kardong-Edgren et al. (2017) examine the challenges of inter- and intrarater reliability and developing a SMM and stress the importance of utilizing faculty with “similar values and professional judgment who are willing and capable of basing their judgments on the set criteria” (p.66). They also state “Our findings demonstrate how important this preparatory work is when embarking on legally defensible high-stakes testing,” (Kardong-Edgren et al., 2017, p. 67).

This presentation describes the strategies employed to build a shared mental model for faculty evaluators in simulation performance assessment. A nationwide, experimental study was conducted to test the effectiveness of a training intervention in enhancing intra and inter-rater reliability among nursing faculty evaluating student performance in simulation. The study was an extension of the NLN Project to Explore the Use of Simulation for High Stakes (Rizzolo, Kardong-Edgren, Oermann, & Jeffries, 2015) which evaluated the process and feasibility of using manikin-based high fidelity simulation for high stakes assessment in pre-licensure RN programs. A total of 102 nursing faculty recruited from nursing programs across the nation were randomized into control and intervention groups. Participants used the Creighton Competency Evaluation Instrument (CCEI) to evaluate student performance in the video recorded simulations. Following implementation of a pilot study to refine the full study procedures, researchers formulated shared mental model agreements to more clearly interpret the CCEI criteria and incorporated this information in the training intervention.

This presentation will also share findings from a qualitative analysis conducted to identify themes relative to the elements identified by study participants to support their decision of student competency in the video-recorded high stakes simulation performance. Participants were asked “Do you consider this student competent to practice nursing?” with ‘yes’ or ‘no’ response options. Two key elements in the student performance that supported this conclusion were then listed. The definition of clinical competency for purposes of the study was the ability to “observe and gather information, recognize deviations from expected patterns, prioritize data, make sense of data, maintain a professional response demeanor, provide clear communication, execute effective interventions, perform nursing skills correctly, evaluate nursing interventions, and self-reflect for performance improvement within a culture of safety” (Hayden, Jeffries, Kardong-Edgren, & Spector, 2011). Performance behaviors that reflect student competency can further enhance the shared mental model in simulation evaluation.

The National League for Nursing (NLN) calls for “fair and equitable testing in relation to high-stakes evaluation” (NLN, 2012, p. 1). As nurse educators strive to provide nursing students with an education that follows national standards, best practice guidelines, and prepares nursing students to practice in their roles as professional nurses, nurse educators must make decisions about student performance. When a SMM is formulated in the context of subjective evaluation, faculty have a clearer understanding of definitions and criteria, and can apply that SMM towards student evaluations in a fair and equitable manner that allows for more consistent evaluations (Kardong-Edgren et al., 2017). The benefit to students is that faculty are more consistent in subjective evaluations. Benefits to faculty are that a shared mental model enhances reliability in evaluation and may provide defensible evaluations in high-stakes situations if students grieve the evaluation or decide to pursue legal action. This study produced important conclusions about building a shared mental model which informs best practices in high stakes assessment.

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## B 05 - Innovations in Simulation by Faculty

### Effects of a Simulation Education Program on Faculty Members' and Students' Outcomes

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#### Abstract

**Background:** High-fidelity simulation (HFS) is a student-centered innovative teaching and learning strategy that allows nursing students to gain experience without harming patients in a simulated environment that is very similar to clinical settings. Although nursing education is based on both theory and practice, the latter is of considerable importance in nursing education. Nursing students are expected to apply theoretical knowledge gathered during class to practice and transform this into behavior; however, they experience difficulty in doing so. In addition, as a solution to the global nursing shortage, the number of students accepted into nursing programs has increased in many countries, including Turkey; however, the number of educators available to guide students individually in practice has decreased. Therefore, the acquisition of targeted skills prior to graduation has become more difficult for nursing students. As in all types of education, educators are essential for the provision of successful learning experiences and serve as facilitators and evaluators in HFS. The International Nursing Association for Clinical Simulation and Learning published nine standards for simulation, one of which is related to educators. According to these standards, facilitators play an important role in simulation-based learning, should attend courses and receive education concerning simulation continuously, and study with experienced mentors. While simulation laboratories have been designed and space has been provided for simulators, training for educators is often overlooked. With the exception of training in simulator use provided by manikin vendors, no educational programs have been established for nursing educators in Turkey. Therefore, this study was conducted to contribute to the development of knowledge and skills regarding simulation strategies for faculty members using HFS, the effective implementation of this strategy, and the nursing literature. Specifically, the study aimed to examine the effects of a simulation education program (SEP) on outcomes in nursing students and faculty members. The two research questions were as follows: (a) is the nursing SEP effective in improving faculty members' outcomes and (b) is the nursing SEP effective in improving students' outcomes?

**Materials and Methods:** The aim of this research was to evaluate the outcomes of a simulation education program in faculty members and students as a quasi-experimental, single group, pre-posttest design. Ethical approval for the study was granted by the institution with which the first author was affiliated. The institution also granted permission for the use of classrooms and the simulation laboratory during simulation training. Written informed consent was obtained from all participants after they had received explanations regarding their responsibilities and the aim, method, and duration of the study. Thirty faculty member who had access to a high-fidelity simulator, wanted to use simulation as a teaching strategy was participated in to the simulation education program, and 249 volunteer students were included in the study. Data was collected by using the "Determination of Educational Needs", "Faculty Members' Sociodemographic Characteristics", "Knowledge Test for Faculty Members", "Faculty Members' Self-Assessment", "Students' Sociodemographic Characteristics", "Test of Students' Knowledge Regarding Hypovolemic Shock" and the "Student Satisfaction and Self-Confidence in Learning Scale". Data was collected three times: before and after the simulation education program and after the high-fidelity simulation with the student. The data analysis included descriptive statistics (means, standard deviations, and frequencies), the Mann-Whitney *U* test, Friedman test, and Cochran's *Q* test. Paired-samples *t*-tests were performed to analyze the variance for some variables. The significance level was set at  $p < .05$ .

**Results:** Faculty members showed significant improvements in knowledge ( $p < .01$ ) and self-assessment scores. In addition, students' knowledge scores increased following the simulation experience, and they reported high satisfaction and self-confidence levels.

**Conclusions:** The simulation education program was effective in improving faculty members' and students' outcomes. The study can be considered to have contributed to the correct implementation of HFS with simulators. The findings indicate that SEPs should be implemented periodically by experienced simulation facilitators and practical elements should be included in these programs to increase faculty members' knowledge and skills regarding simulation and to ensure efficient use of the simulators available in laboratories.

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## B 05 - Innovations in Simulation by Faculty

### Role Modeling in Simulation

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#### Abstract

Over the last few years the use of simulation in the clinical laboratory setting in nursing school has become a standard teaching strategy. Simulation provides a way to learn from mistakes without having devastating human consequences. Simulation in nursing education provides a controlled, safe environment in which problem-based learning scenarios can be utilized to teach technical skills as well as metacognitive skills. Some scenarios utilize low fidelity manikins, which are simply human body forms and have been used for years to teach physical assessment and psychomotor skills. In more recent years High Fidelity Simulation (HFS) have been integrated to teach cognitive skills along with technical skills to provide a more realistic clinical experience. HFS provides a tetherless, wireless manikin that emulates many physiological functions such as the ability to feel pulses, fully articulated movement in the wrists, elbows, knees, and ankles, pupils that react to light, chest rise and fall and comes with a variety of pre-programmed scenarios. In addition, the instructor has the ability to program his or her own scenarios.

Role modeling occurs when someone demonstrates a skill or behavior that is then imitated by an observer. Role modeling is both an effective teaching and learning strategy to demonstrate skills, and explain rationales and behaviors. Role modeling can also promote patient safety by providing a visual demonstration of what could cause harm. Furthermore, role modeling provides inductive learning because once the role modeled scenario has been presented, the student then has the opportunity to use critical thinking skills to decide if the behaviors presented are appropriate or not and then reflect on what can be learned from the scenario. The reflective learning opportunity allows students a time to analyze and discuss concepts learned. This usually occurs during the debriefing. Debriefing is typically always held at the conclusion of a simulation.

This presentation will demonstrate the use of role modeling in simulation used in the classroom setting. In this simulation, the faculty used role modeling to demonstrate effective communication and assessment skills in the initial assessment of a patient admitted to a medical-surgical unit. The simulation was recorded with faculty demonstrating both effective and ineffective communication in two separate recordings. The ineffective recording was shown to the students first, followed by a time of classroom reflection and discussion. Next, the effective communication simulation was shown to students, also followed by a time of reflection and discussion as well as debriefing. The students displayed more interaction in class through the reflective discussion after viewing the simulation scenarios. HPS has been touted as a solution to improving nursing education, standardizing clinical experiences, and providing clinical time when clinical spaces are limited. Since HPS is utilized in nursing curriculums across the country, nurse educators should continue to examine ways to incorporate innovative teaching and learning strategies to further promote student engagement.

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## B 06 - Medication Errors

### Strengthening Nursing Education Through Mobile Technology Integration Thus Promoting Technological Competency and Medication Error Reduction

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#### Abstract

**Purpose:** The purpose of this presentation is to educate nursing faculty to effectively integrate technology into their teaching through mobile technology use thereby promoting technological competency, to provide students with classroom and clinical experiences, to increase evidence-based practice and decrease medication errors by making relevant information available at the point-of-care

**Introduction:** The practice environment for nurses has changed radically due to the advances in information technology and massive expansion of knowledge in health care. Promoting technological competency is a priority in nursing which can be done by integrating the use of mobile technology in the clinical setting and course work to better prepare graduate nurses for the current and future health care environment. Patient safety is an important priority for nursing. Medication errors are a major cause of harm to patients and reducing medication errors is a major concern in today's technologically sophisticated healthcare environment. Nurses are the main professionals involved in administering medications and administration is the part of the medication process with the least safeguards in place. Mobile technology, especially personal digital assistants (PDAs) used by nursing students can provide access to information at the point of care to safely calculate medication dosages to reduce medication errors thereby promoting technological competency.

**Background/Significance:** The American Association of Colleges of Nursing (2005), the National League for Nursing (2008), and the Institute of Medicine (2003), some of the major forces in professional health care and nursing education advocate the incorporation of technology in nursing education (George et al., 2010). Technological competency is the skilled demonstration of intentional and authentic activities by nurses who practice in environments requiring technological expertise. It supports current high-tech nursing practice by validating the dependency on nursing on technologies in the management of health care (Locsin, 2005). Nurses are the bridge between the patient and technology. The nursing curriculum and teaching strategies need to teach with and about technology to better inform health care interventions that improve health care outcomes especially medication error reduction (NLN, 2015). IOM estimates that medication errors result in at least one death every day in the United States and have stressed patient safety as a priority. They also conclude that it is not acceptable for patients to be harmed by the health care system that is supposed to offer healing and comfort—a system that promises, "First, do no harm." (IOM, 1999). The National Coordinating Council for Medication Error Reporting and Prevention (NCCMERP) believes there is no acceptable incidence rate for medication errors and the goal of every health care organization should be to continually improve systems to prevent harm to patients due to medication errors (NCCMERP, 2008). The IOM drew attention to the need for technology solutions that can make a difference in the ability of nurses to ensure safe, high-quality patient care emphasizing the area of medication administration (McKesson, 2004). The American Association of College of Nursing (AACN) recognized that technological advances are increasing opportunities to improve the quality of, and access to, nursing education (AACN, 2002). Additionally, the Board of Governors of the National League for Nursing (NLN) in their position statement "Transforming Nursing Education" recommended nurse educators to effectively integrate technology into their teaching through the use of sustained, evidence-based practices, distance learning, simulation and Personal Digital Assistants (PDAs) to provide students with clinical experiences in diverse settings and to improve care provided to patients (NLN, 2005). Technology solutions, especially PDA technology, can make a difference in the ability of nurses to provide safe patient care in the area of medication administration, especially medication calculations by having access to the latest healthcare information. Health care professionals require access to ever-expanding knowledge, and PDAs or other handheld computer devices can serve as valuable tools for education, information storage and retrieval, and clinical practice (George et al., 2010). Using PDA technology at the point of care; by a bedside, in the community, in the office, or in a patient's home can reduce errors and promote patient safety. It provides a mobile platform whereby the nursing student or nurse can download various types of software and access information quickly that supports evidence-based nursing practice (Beard et al., 2011).

**Methodology / Data Analysis:** An evidence-based pilot study using Rosswurm and Larrabee's change model was conducted at a private School of Nursing in Northern NJ. The stages are similar to the nursing process and are as follows: assess, link, synthesize, design, implement and evaluate, and integrate and maintain (Rosswurm and Larrabee, 1999).

A convenience sample of twenty undergraduate junior nursing students enrolled in the medical-surgical nursing course was given a case study with an attached medication administration record. Students were instructed to use the PDA with nursing software to complete the questions and calculate drug dosages in the case study. The comparison group was the same twenty students who use the PDAs. They were required to complete the same case study using textbooks and a calculator after 4 months. The two outcomes measured were accuracy and speed. Accuracy was determined from the 10 questions asked in the case study. Each correct answer received a score of 1, and each incorrect score was scored as 0, with a maximum score of 10. The speed was the time each student took to complete the case study, the maximum time allotted was 15 minutes. The groups are similar, since it was the same group used for the PDA exercise and textbook exercise to complete the case study. The t-test, a non-parametric test was used. The mean accuracy, mean speed, the standard deviation (SD), the t value, the degrees of freedom (df) and the level of significance (p value) were calculated.

The mean accuracy for the PDA group was 9.90 and 9.65 for the textbook group, df was 38 and  $p = 0.06$ . The level of difference between the means for the two groups was not statistically significant. However, the mean accuracy was higher by 0.25 in the PDA group compared to the textbook group. The mean speed was 7.25 minutes for the PDA group and 12.0 minutes for the text book group, df was 38 and  $p = 0.0001$ . The level of difference between the means for the two groups was statistically significant. This shows that the group that used the PDA worked at a faster speed than the group that used the textbooks. The standard deviation for the two groups revealed that the participants' responses were similar to the mean. Post evaluation survey indicated that the students found the PDAs easy to use and perceived their use as beneficial to their learning in the clinical area.

**Findings/Implications:** Based on the results of the study, the integration of PDA technology was built into the baccalaureate nursing program at the University making it a requirement from the first clinical course. This supported the mission of the University to be a leader in providing high quality technological and professional nursing education. After selection of the PDA and nursing software, financing, and IT support, students and clinical faculty were provided education and training on the PDA use thereby promoting technological competency. Students use the PDA in the clinical setting to access information that supports nursing practice thus reducing errors, improving care, and promoting patient safety by increasing accuracy and efficiency. Medication administration is a critical step, and the nursing student or nurse administering that medication must be able to perform this procedure safely. Medication administration is also performed frequently, which increases the chances for error, since it involves calculations. When medication information is available in a PDA, it can be retrieved easily at the point of care, thereby reducing the incidence of medication errors. It is an important technologic competency that will improve the quality of nursing practice and therefore should be included in the nursing curricula. These outcomes are in concert with IOM's goal to provide safe medication administration at the point of care.

**Discussion:** The use of mobile technology in the nursing curriculum would introduce students to the habit of using technology for safe practice thus promoting technological competency. The rapid influx of mobile technology into nursing practice also dictates that nurse educators train current and future nursing students to deliver new strategies of care. This also provides an opportunity for nurse researchers to indulge in evidence-based research to confirm the effectiveness of these strategies in providing optimum health care (Melynk, 2012). This technology will eventually help the practicing nurse to spend more time on patient care and have access to the most current information. Health care employers are also expecting graduate nurses to have the latest information technology skills. Providing nursing care in a highly technological, connected work environment is the future of nursing practice. Mobile devices like the PDA can open a door of lifetime learning, as students are capable of moving from one learning environment to another (Franklin, et al, 2007).

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## B 06 - Medication Errors

### The Lived Experience of Making a Medication Administration Error in Nursing Practice

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#### Abstract

Medication administration is an important task performed daily by nurses and is one of the key aspects of safe patient care. The multiple and varied roles of nurses, complexity of workplace, chaotic and technical nature of the work environment may result in cognitive overload that may overwhelm nurses, which may possibly lead to medication errors. All medication errors committed are considered serious events but some may consequently be harmful to patients. Research indicates that when medication errors occur the concern is usually for the patients involved in the incident. However, making a medication administration error has a lasting effect on the nurse as well as the patient (Schelbred & Nord, 2007; Treiber & Jones, 2010).

This study examined what it was like to make a medication error for eight registered nurses through in-depth and focused face to face interview using the descriptive phenomenological approach rooted in the philosophical tradition of Husserl. Two interviews were carried out with each participant and the research data were generated from a total of sixteen interviews and field notes. The transcripts were analyzed using the seven-step methodological guidelines developed by Colaizzi for data interpretation to understand the meaning of the nurses lived experiences of making medication errors.

Five theme categories emerged: Immediate Impact: Psychological and Physical Reactions; Multiple Causes within Chaos: Cognitive Dimensions; Embedded Challenges: Healthcare Setting; Organizational Culture: Within the Place/Within the Person; Dynamics of Reflection: Looking Forward. The essential structure of the phenomenon of making a medication administration error included the realization that a profound experience had happened to them. This resulted in physical and emotional upheavals, a threatened professional status, with low self-esteem and confidence. An overwhelming workload, a stressful work environment and ill-treatment by peers were descriptions of the cause of the errors. Nurses did offer ways to improve the system but felt their concerns were often not valued. Implications for nursing practice to improve patient outcomes, and for nursing education, to radically change the teaching of medication administration were formulated.

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## B 07 - Quality Considerations

### Measuring Student Perceptions of Quality and Safety Competencies in Baccalaureate Education

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#### Abstract

The Institute of Medicine (IOM, 1999, 2001) reported that tens of thousands of Americans die each year because of medical errors. Current research indicates that number may be as high as 250,000 deaths per year (Makary & Daniel, 2016). The World Health Organization (WHO, 2017) reported that unsafe medication practices and medication errors are a leading cause of avoidable harm in healthcare systems globally. In response to these reports, the Quality and Safety Education for Nurses (QSEN) initiative was developed to prepare future nurses with the knowledge, skills, and attitudes (KSAs) necessary to continuously improve the quality and safety of healthcare systems (Barnsteiner et al, 2012, Sullivan, Hirst & Cronenwett, 2009). Nursing programs must ensure that graduate competencies in quality and patient safety are sufficient to meet practice needs. These competencies should be integrated into theoretical and experiential learning using active, student centered methodologies.

This study was designed to measure student perceptions of the extent to which they acquired the knowledge, skills and attitudes as well as self-reported perceived importance and levels of preparedness associated with the QSEN competencies in their nursing program. It is the next logical step to initial research investigating faculty perceptions of QSEN competency integration across nursing curricula (Bryer & Peterson Graziose, 2014). Moving forward from the faculty development phase of investigation, assessment of gaps in student learning is warranted, supporting the need for additional inquiry regarding student perceptions of the QSEN competencies in nursing education.

Using a descriptive, cross-sectional design, a convenience sample of 73 nursing students from a suburban public college were surveyed using the Quality and Safety Education for Nurses (QSEN) Student Evaluation Survey tool (Sullivan, Hirst, & Cronenwett, 2009). Data were collected from generic, advanced placement, and RN to BS students enrolled in a three-track baccalaureate nursing program. Survey percentages, mean scores, and an ANOVA test were used to analyze study results to determine student perceived knowledge, preparation, and importance of QSEN competencies in the nursing curriculum.

Study findings indicating students' perception of the most frequently included QSEN competency items in the nursing curriculum correspond to patient-centered care (90.3%). Items least frequently included in the curriculum corresponded to the quality improvement and evidence-based practice competencies (12.5% and 12.3% respectively). Knowledge objectives were most frequently learned in the classroom setting (90.4%). The overall mean of skill items was 3.2 (maximum score 4) indicating that students perceived they were somewhat prepared to very prepared to perform specific actions or skills based on all six QSEN competencies. ANOVA results show statically significant differences between groups for the patient-centered care ( $F(4.280) = 2, 70, p=.018$ ), informatics ( $F(2.93) = 2, 70, p=.021$ ), teamwork and collaboration ( $F(2.516) 2, 70, p=.006$ , and quality improvement ( $F(5.090), 2, 70, p=.009$ ) competencies. Patient-centered care skills were rated most important for nurses to have in their first year of practice (3.83) and skills in the quality improvement category were rated least important (3.53).

Results reveal an opportunity for faculty to enhance student learning of all quality and safety competencies, not only in the classroom but in the clinical and laboratory settings as well. Overall, students perceived the QSEN competencies to be important and valuable to their professional nursing practice however, gaps remain in student learning, particularly in quality improvement competency.

An assessment of faculty knowledge of current quality improvement practices may be necessary. Focusing faculty education on teaching strategies that address this specific competency would be beneficial. Student participation in unit based quality improvement projects may narrow the gap in knowledge, skills and attitudes regarding quality improvement. Faculty analysis identifying where in the curriculum quality improvement teaching takes place and where it can be added may increase student perceptions of content in this competency area.

Implications for education include redesign of curricula emphasizing quality improvement and evidence-based practice competencies. Assessment of faculty understanding of QSEN competencies may help assure that students graduate with the knowledge, skills and attitude to enter the workforce prepared to provide safe, quality care.

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## B 07 - Quality Considerations

### The 2017 National QSEN Faculty Assessment: Findings and Implications for Nursing Education

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#### Abstract

The Quality and Safety Education for Nurses (QSEN) national initiative which was started in 2005, has supported the adoption and integration of updated quality and safety competencies in nursing education. The QSEN competencies identify the knowledge, skills, and attitudes needed by nurses to meet the demands of the health care environment, emphasizing patient-centered care, collaboration with other members of the health care team, evidence-based practice, continuous quality improvement, safety, and the integrated use of informatics. Faculty needs regarding QSEN competency integration, and the degree to which QSEN competencies are reflected in current nursing curricula, have not been assessed nationally until now. This presentation reports the study findings of the 2017 National QSEN Faculty Survey and discusses implications for nurse educators and programs of nursing education.

Done in partnership with the National League for Nursing (NLN), the aims of this national study were to assess: 1) whether QSEN competencies are being taught in U.S. schools of nursing, 2) the degree of faculty development in schools where QSEN competencies are being taught, and 3) the degree of integration into curricula where QSEN competencies are being taught. A 19 question instrument of mostly select all that apply items and open text boxes for additional information, was distributed to NLN members over a 2 month period, resulting in 2037 participants.

Results indicate progress has been made in the last 12 years in the dissemination and adoption of the QSEN competencies, however significant needs remain for faculty development and support. Faculty indicate that the QSEN competencies are being incorporated into nursing education to some degree by many nurse educators; the degree to which varies greatly among programs, with a large number indicating the integration is segmental and not throughout the curriculum. The competencies of patient-centered care, evidence-based practice, and safety were identified as most evident in nursing curricula, while quality improvement and informatics have the lowest representation. Medical-surgical and nursing fundamentals courses demonstrate more thorough integration while there is a clear need for increased integration of the competencies into community-based care and nursing research. Resources identified by faculty included the QSEN website and learning materials from various nursing organizations. Only a small number of faculty reported having received formal training about the QSEN competencies, while a large percentage indicated they learned through self-study and other modalities. 133 participants did not know what QSEN is.

Future efforts will need to focus on supporting faculty to do this work by providing training, ideas, and strategies, and combining forces between major nursing organizations to disseminate comprehensive resources and support to nurse educators in both academia and practice. It is essential that deans and directors support this work, promoting formal faculty education in the QSEN competencies and time to devote to this work. Further study is needed to determine if faculty understand and are teaching updated concepts that support the QSEN competencies.

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## B 08 - Service Learning in Nursing Education

### Endorsement and Use of Recommended Strategies for Implementing Service Learning in Schools of Nursing

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#### Abstract

**Background and Purpose:** Service learning experiences (SLEs) have become increasingly common in nursing education as schools strive to provide socially relevant curricula that improve students' cultural competence and prepare them to confront and challenge existing health disparities. Amerson (2014) reviewed research studies related to implementation of service learning and developed recommendations for best practices. The purpose of the current study was to quantify the uptake of those recommendations in SLEs offered in US nursing schools, and analyze the findings in relation to best practices.

**Methods:** The instrument for this exploratory, descriptive study was developed by the researcher and administered online using Qualtrics® after approval by the university's institutional review board. Participants were recruited through a survey link emailed to approximately 1600 deans or directors of accredited US nursing schools, who were asked to forward it to faculty who oversee SLEs. Frequencies were tabulated using SPSS (v.24).

**Results:** The sample consisted of 77 nursing faculty from 32 US states who provided complete data (58% of the 133 who opened the link). Respondents were primarily female (97%), white (86%), and over the age of 50 (72%). Most faculty (75%) were affiliated with BSN programs and accompanied the students to the SLE (47% for the entire time, 31% part of the time). Twenty-three percent of the SLEs were located outside of the US with the majority of those being in the Caribbean, South America, or Central America; 55% were in local communities and 18% were within commuting distance. Academic credit was conferred for 61% of the SLEs. For 55% of the SLEs, students incurred no cost, although some required that students to pay for transportation (33%), meals (16%), lodging (12%) and/or a program fee (16%). The table summarizes selected recommended practices (Amerson, 2014) and gives results for related survey items.

Recommended practice	Selected survey results (% of total n=77)
Choice of location should be tailored to course content.	-96% say it is extremely or somewhat important that the service provided by students be coupled with course content. -most student participants are enrolled in a required (73%) or elective (23%) course.
Preparation should include discussion of sociocultural aspects of the host community.	-preparation includes experiences at home that give insight into host culture (42%). -preparation topics include (to a great or moderate extent): host healthcare systems (84%), health disparities (81%), cultural norms (80%), economic disparities (78%); cultural humility (72%); stereotyping (75%); local customs/foods (70%); privilege (68%); racism (69%); cultural arrogance/sense of superiority (67%); religious beliefs of hosts (55%); poverty tourism (51%).
Experience should push students out of comfort zone; expect student anxiety and ambivalence about their own resources.	94% say it is extremely or somewhat important that the experience take students out of their "comfort zone." -reflection sessions address: personal transformation or growth (95%), inequities in resources and opportunities in the host community (95%).
Experiential learning, especially home visits, are the best way to understand real life in the host community and develop cultural competence.	-activities onsite: nursing assessment or care of clients in homecare setting (48%); nursing care of clients in a clinic-type setting (48%).
Partnering with organizations in the host community sustains relationships and helps address their true needs.	-96% say it is extremely or somewhat important that efforts are made to build long-term, sustainable partnerships that address the needs of the host community -69% say that the host community believes the service provided by the students addresses the needs of the host community to a great extent. -34% say that the planning phase includes asking members of the host community how needs can best be served
Unstructured time promotes learning about culture and improves communication.	-activities onsite: talk informally with people from the host community (70%); interact/play with children (60%); share meals with people from host community (53%); unstructured time for students (42%)
Students should teach people in the community and learn foreign language when necessary.	-students required to: develop some degree of foreign language competency (4%); complete teaching project for individuals and groups in the host community (70%)
Journaling/blogging/photography promote reflection and self-evaluation.	-required assignment such as photo journal, blog, interview: onsite (57%), after return (53%).

**Conclusion:** Overall, faculty involved with SLEs adhere to recommended practices. SLEs are usually coupled with course content so students likely benefit from cohesive, integrated, experiential learning. Sociocultural issues that affect the host community and potential pitfalls of SLEs are discussed by the majority of faculty in the preparation phase. Despite the anxiety and ambivalence SLEs may cause, faculty overwhelmingly agree that SLEs should take students out of their comfort zone. Journaling and similar strategies allow for reflection and self-evaluation either onsite or after return.

Some SLE leaders should consider increasing the amount of unstructured time for students to interact with people in the host community. Leaders should plan experiences that give students a first-hand glimpse into host culture prior to the SLE. Opportunities for home care experiences should

also be explored. Schools that do not require teaching projects should consider adding those. Developing partnerships with organizations in the host community to ensure meeting their true needs is viewed as important by a strong majority, although only 69% say that the host community believes the service provided addresses their needs to a great extent. Balancing the needs of the community with the learning needs of the students is a persistent challenge to service learning.

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## B 08 - Service Learning in Nursing Education

### Service Learning in Nursing Education: Bridging the Gap Between Classroom and Community

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#### Abstract

**Introduction/ Background:** Service learning is increasingly being incorporated into institutional higher education settings with the benefits of meaningful community engagement, experiential and reciprocal learning, and application of theory with a focus on effective communication, cultural competence, and empathy (Voss, 2015; Brown & Schmidt, 2016). The definition commonly used for service learning in the 1980's and 90's was "integration of community service with academic coursework" (Chapin, 1998). The aim was to enhance student learning objectives and curriculum. This innovative teaching modality was designed to focus on social action and considered separate from the more conservative reflective community service approach (Chapin, 1998). Currently service learning is defined by the following criteria: the activities must be experiential; activities are designed to address individual and community needs through a structured learning experience; reflection on the experience is incorporated; and students are guided to embody reciprocity between themselves in their service and those they are serving (Yancey, 2016.).

It may appear that current nursing curriculum embraces service learning through clinical experiences however when the four elements above are considered, clinical experiences alone fail to fulfill all the critical components of service learning (Yancey, 2016). There has been much discussion surrounding the benefits of including service learning in nursing curriculum however the debate continues regarding if this type of learning experience should be structured or unstructured in nature. Yancey (2016) concluded that although placing nursing students in unstructured experiences may put them at risk for cultural discomfort, the benefits of including activities without clearly defined objectives are particularly important when working with indigenous populations or those who do not subscribe to the core concepts of Western style education or healthcare (Yancey, 2016). Furthermore, curriculum that does not include service learning may act as a barrier to practical application of knowledge and skills, exposure to multicultural experiences, multidisciplinary collaboration, community engagement, and experiential learning. With this in mind, nursing program faculty and educators require support in defining service learning, understanding the objectives and benefits, understanding the implications for those providing and receiving services, and implementing a framework within their program to provide students with meaningful and comprehensive community based service learning opportunities. The purpose of this research project was to explore the impact of community based service learning on undergraduate nursing students' achievement of university institutional mission-based learning outcomes and nursing student learning objectives.

**Methodology:** Photo elicitation interviewing, also known as Photovoice, is utilized to mitigate barriers between participants and researchers (Polit, 2012). This methodology is also considered a valuable tool for reflection and self-evaluation by reinforcing learning through the process of choosing a photo and expressing how it demonstrates a concept (Amerson, 2014). Photovoice methodology was utilized by the ten junior and senior baccalaureate nursing students from a small, four-year public learning institution in southern California who participated in this study. The participants were required to be a currently enrolled university student, aged 18 or over, having access to a digital camera, and able to consent to participate in the study via written form in English. They were also required to volunteer at the collaborating church based faculty-student run community clinic at least three times during the study period. These volunteer activities could either be structured or unstructured in nature. Participants were asked to submit three to five photographs for each meeting representing the aims of the study. Instruction was given on basic photography and obtaining of informed consent when using photography. The participant group met five times over a seven-week period to discuss their photos. A total of 80 photographs were submitted and 47 were discussed. Discussions were recorded and transcribed by the researchers and common themes and barriers were identified.

**Results:** Community based service learning impacted the participants by:

1. Enabling fulfillment of the university service learning mission statement and related nursing program student learning outcomes.
2. Providing opportunities for reciprocal learning and collaboration between students, community members, organizations, and peers.
3. Developing confidence in application of learned skills from nursing curriculum and nursing theory.
4. Enhancing cultural competency and understanding of the community needs of vulnerable populations and those at risk for health inequities/disparities

**Discussion:** Service learning enhances cultural competency among students and can improve interactions with vulnerable or underserved populations. When participating in service learning, with a minority or immigrant group, students become engaged with new populations and improve their ability to communicate and work among diverse groups of people (Amerson, 2014). Nursing students are taught how to work with vulnerable populations and diverse aggregate groups. Development and practice of these skills are essential to their attainment of related learning outcomes. Students also identified that their experiences within the community were unique from previously assigned coursework and other class requirements. For nursing students specifically, clinical curriculum is typically focused on the delivery of individual patient care, however service learning provides an opportunity for nursing students to participate in inter-professional interaction and meaningful community engagement (Buff et al., 2014). Student participants not only felt that service learning offered a unique learning opportunity but they also felt that they would not have been able to fully meet general nursing program and course objectives without their participation in voluntary service learning experiences.

Limitations of this study include a lack of diversity in study participants and consistency of participant attendance in discussion group meetings. Although interdisciplinary student majors volunteer at the study site regularly, nursing students make up the majority of students who staff the clinic site thus the lack of participation of students from other disciplines was a further limitation.

This study explored nursing student perceptions of community based service learning and the impact it has on their fulfillment of the university mission statement and mission-based learning outcomes, individual course content, and nursing student learning outcomes. The findings depict service learning as an essential component to higher education and the fulfillment of related learning objectives not only for nursing student coursework but also for the university as a whole. Participants expressed their service learning experiences as having a positive impact on student learning, personal and professional development, and on educational outcomes. Student participant responses were consistently positive in nature, thus supporting the literature by emphasizing the benefits of this innovative teaching modality. Consideration should be given to incorporate this strategy across the nursing curriculum to further enhance community based learning.

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## B 09 - Student Success

### Learning How to Learn: Nurses' Experiences With Failure and Success

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#### Abstract

**Background and significance:** More than 1.02 million new nurses are needed by 2022 for the predicted nursing shortage. A potential way to decrease the shortage is through increasing the number of nursing students entering the workforce. Unfortunately, nursing students in the United States (U.S.) are among the college students with the lowest retention and graduation rates ranging from 30%-70%. This has also been identified as an international problem. Research studies addressing this issue focus on admission criteria, retention, and remediation of students with no consistent findings. No studies exist that utilize nursing students who have experienced both failure and success in a nursing program.

**Purpose:** The purpose of this study was to describe the experiences of nurses who have failed at least one nursing course during their Bachelor of Science (BSN) nursing education program, then completed their nursing education and continued to be successful by passing the NCLEX-RN on the first attempt.

**Methods:** A qualitative design of interpretive phenomenology was used for this study. The conceptual framework focused on the Hermeneutic philosophy and David Kolb's Experiential Theory. A purposive sample was identified by faculty and peers using snowball sampling. Recruitment occurred until saturation was achieved. Participants were registered nurses who failed a nursing course, then successfully completed a nursing program after failing a course, and successfully passed the NCLEX-RN on the first attempt. Using open-ended questions, the researcher conducted face-to-face semi-structured interviews. Audiotapes of the interviews were transcribed verbatim and entered into Ethnograph 6.0. A naïve reading of the transcribed were completed. Data was then coded, a code book was created, and codes were verified by methods and content experts. Content analysis, constant comparison, and use of field notes revealed two themes. An audit trail was completed to provide an ability to further understand the research study and identification of themes. Trustworthiness of the data was established through credibility, dependability, confirmability, and transferability.

**Results:** A total of fourteen participants were recruited from five different nursing programs. Two themes emerged, difficulty learning and learning to learn. Participants noted that they did not know how to study for nursing, their prior learning experiences were not helpful, and they did not ask for help. Participants identified the process of learning effective study skills/habits as essential to their success in a nursing program and on the NCLEX-RN. The theme of learning to learn emerged from the interviews.

**Conclusions:** A unique sample was recruited for this study that provided an in-depth description of the nursing student's experience of moving from failure to success. The participants in this study actually learned how to learn effectively in a nursing program.

**Implications for Nursing Practice:** The participants revealed information about the process of becoming successful while in a nursing program. Incorporation of the findings of this study were used to provide suggestions for nursing faculty, nursing education administrators, and students with the goal of decreasing attrition, increasing retention, and ultimately impacting the nursing shortage. Further research to valid the findings will need to be completed.

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## B 09 - Student Success

### Examining Readmission Policies: Academic Performance After Readmission to Nursing School

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#### Abstract

**Background.** Nursing students must perform at a level which meets established minimum competencies. Unfortunately, every school has students who do not meet performance expectations or find themselves unable to continue schooling for personal reasons, making them subject to readmission policies. Many schools have strict readmission policies for students who have either failed or withdrawn from the program with the most common response being to suspend or dismiss the student. This attrition is costly to the student and program for multiple reasons. There is little evidence regarding academic performance of students readmitted following a one-time program dismissal. The purpose of this study was to investigate factors influencing program completion in nursing students readmitted to an associate degree nursing program.

**Method.** Data was collected using an archival design from the existing records of all students readmitted after dismissal, defined as leaving the nursing program at any time before completion, between fall 2009 and fall 2015. Students were tracked until either dismissed a second time or successful, defined as program completion. Variables of interest include GPA when dismissed; GPA upon readmission to the program; reason for dismissal- personal or academic, number of semesters completed before the first dismissal, number of semesters out; midcurricular and exit HESI scores, and NCLEX-RN examination scores for those who completed. Other variables of interest included the numbers of clinical failures, medication math failures, skills test failures, as well as attendance and conduct reports before the second dismissal.

**Results.** Of the 107 students for whom complete records were available, 46 were dismissed a second time and 61 completed the program. The semester a student was initially dismissed and reason for dismissal was significantly related to academic performance upon return. No student readmitted after being dismissed the first semester for academic reasons in either nursing or chemistry completed the program ( $\chi^2 37.492 (7), p < 0.001$ ), while every student readmitted for the final semester or readmitted after withdrawing for personal reasons completed the program. As students progressed through the second and third semesters, the percent of students completing the program increased, though the percent completing after return in the third semester was just over 50% (53.2%). Those who completed the program had significantly higher GPAs on readmission ( $t = 2.023, p = .05$ ). Those students having to take coursework to raise more than 2 semesters of coursework to raise their GPA to meet readmission requirements had only a 10% chance of completing the program ( $\chi^2 21.080 (4), p < 0.001$ ), while those who were initially dismissed for conduct had a 12.1% chance of completing the program ( $\chi^2 10.461, p = 0.01$ ). Students not completing the program had significantly more absences ( $M = .5, SD = 1.1$ ) than those who completed ( $M = .18, SD = .5; t = 2.027, p = .045$ ) and skills test failures, with those not completing the program having more failures ( $M = .41, SD = 1.1$ ) than those who completed ( $M = .03, SD = .18; t = 2.641, p = .01$ ). There was a significant difference between the type of student and program completion, with advanced standing students being more likely to complete ( $\chi^2 4.075, p = .044$ ). There were no differences in program completion rates by gender. There was no significant difference in program completion rates for those students ( $n = 21$ ) who failed multiple courses in any one semester ( $\chi^2 .228, p = .63$ ). A 2-factor logistic regression model consisting of GPA upon reentry and initial semester dismissed was statistically significant ( $\chi^2 100.5 (60), p = 0.001$ ), explaining 81.8% of the variance in program completion rates, correctly classified 88.8% of the students.

**Discussion.** This study revealed major implications to consider when evaluating readmission of policies. The fact that no student readmitted after academic dismissal the first semester did not complete the program was not surprising. Though program entrance criteria screen for academic ability, it may be that the student who is not successful this early in their schooling is not prepared or able to meet the academic demands of nursing school. The low completion rate for those students with a lower readmission GPA or who took additional coursework to raise their GPA is congruent with reports regarding the predictive value of GPA in the general college and nursing student populations. Implementing policies that lower the maximum time allowed for program completion would make it more difficult for students with low GPAs to be readmitted and reduce student's financial burden associated with continuing to take additional coursework towards a degree which will likely not be realized.

**Conclusion.** The results of this study provide faculty and administrators with data that can be used to evaluate and develop readmission policies based on clearly defined criteria which measure a student's ability to succeed, as well as develop and implement appropriate remediation programs, such as tutoring or mentoring, designed to provide students with resources to support retention and improve the completion rate of readmitted students. This analysis strongly supports the need for careful consideration regarding the timing of dismissal and the student's GPA and conduct, when considering the readmission of students and their chance for successfully completing the nursing program.

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## B 10 - Clinical Studies

### Treatment of the Oral Mucositis Severity in Patients of Bone Marrow Transplantation: A Meta-Analysis

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#### Abstract

**Background:** According to the Brazilian Association of Organ Transplantation, in the year of 2016, of which 1385 autologous and 802 allogeneic were realized. (Brazilian Association of Organ Transplantation, 2016). However, it is important to consider the collateral effects deriving from it, among which are protruded: marrow aplasia, nausea, vomits, diarrhea, mucositis and the Illness of the Excerpt against the Host (DECH). The mucositis, the object of this study, occurs in approximately 75% of the patients that receive ablative chemotherapy or total body irradiation (Total Body Irradiation – TBI), as a conditioning to the bone marrow transplantation or of peripheral cells (Sonis, 2004). This complication is considered an important collateral effect due to its great repercussion in the general state of the patient, being significantly associated to the mortality increase of the patients submitted to BMT (Sonis, 2004). This lack of sensible evidence limits the possibility of establishing the magnitude of the benefits, the risks and costs associated to prevention, to the diagnosis and to the treatment of mucositis and its complications. Before the exposed, the scope of the study is the investigation of the therapeutically measures for the oral mucositis in patients submitted to the BMT, as a manner of identifying the best clinical evidences to plan the nursing care to patients in this condition.

**Aims:** To identify the interventions needed to treat oral mucositis; and to evaluate the evidences of effectiveness of these interventions when performed in patients undergoing Bone Marrow transplantation (BMT).

**Design:** Systematic review with meta-analysis.

**Setting:** Cochrane Brazil and Nurse Department of São Paulo Federal University.

**Method:** A systematic review was carried out using the following key words: “mucositis”, and “bone marrow transplantation”. The period searched was from 1972 to 2017 in the following data bases: LILACS, MEDLINE, CINAHL, EMBASE; CENTRAL (Cochrane Central Register of Controlled Trials) and DARE (Database of Abstracts of Reviews of Effects). The investigated closing was the intensity reduction of the oral mucositis.

**Findings:** 3.839 abstracts were found, from which 19 were included in the systematic review and 17 were submitted to meta-analysis. Three topical and one systemic interventions presented statistically significant evidence in reducing mucositis severity: the use of Traumeell®, mouthwash with chlorexidine, topic cryotherapy and amifostina. Cryotherapy presented better protective and therapeutical effect with relative risk of 0,03 (IC95%; p= 0,02).

**Discussion:** In the realization of this meta-analysis, one of the difficulties found was the reduced number of controlled random study. Other important aspect to be considered are the methodological failures identified in the studies that approached the therapeutic intervention. The lack of accuracy in the measuring of this complication is also an impediment to the clinical research and, undoubtedly, to the implementation of oral mucositis' prevention and control protocols. (Stockman, 2005) In this review we have found 19 studies that fulfilled the inclusion criteria; the number of studies could be greater if the accuracy in the evaluation of this complication was realized in a systematic and controlled manner. The better treatment found in this investigation, and very effective was the utilization of the topic ice or cryotherapy. A low cost therapeutic option, which does not offer risks, with high efficacy and easy clinical applicability. Probably due to its vasoconstrictor effect, provides a decrease of the citotoxic drugs concentration in the salivary glands and causes lesser cellular damage in the oral mucous membrane (Nikolett, 2005). The analyzed studies demonstrate efficacy in the reduction of the mucositis' severity, with an important protecting effect, when used (RR= 0.03). In other uncontrolled study with patients in a specific conditioning regimen with Melfalane, this care has also revealed a protecting and therapeutic effect (Cascinu, 1994). One of possible restrictions that could be identified in these studies is that one of them has only used, in the conditioning regimen, Melfalane, which restricts the possibility of generalization of this intervention for the other conditioning regimens utilized in the BMT, as well as Fluoracil that has its specific pharmacological proprieties. But, in both researches, cryotherapy has show a therapeutic effect for the signals and symptoms associated to mucositis and prophylactic to its severity. The efficacy of cryotherapy has also been proved in the mucositis' treatment in patients with colon cancer submitted to chemotherapy with Fluouracil (Nikolett, 2005; Cascinu, 1994; McGuire, 2004). Among the 17 studies included in this meta-analysis it was not possible to include the nursing researches, which were referred to hygiene protocols, education to health, daily oral cavity self-care, as well as the protocols to technical scientific prepare of the nurses once they constitute narrative reviews and descriptive researches. Nevertheless, it is good to protrude that international algorithms for the mucositis' handling in patients that receive antineoplastic treatment were proposed by Cochrane Collaboration researches (Worthington, 2011), National Comprehensive Cancer Network- NCCN (Bensinger, 2008), European Oncology Nursing Society- EONS (European Oncology Nursing Society, 2008) and from

Oncology Nursing Society – ONS (Oncology Nursing Society, 2008), based on the opinion of specialists and studies with evidence analysis and recommendation grade. Comparing the treatments the treatments proposed in these recommendations with the results of this investigation, we can verify that some of the treatments recommended in this recommended in this research, such as, for instance, the Traumeel, were not mentioned in the NCCN, EONS and ONS' protocols. On the other hand, Palifermin, recommended by NCCN, EONS and ONS, in this study and in the last Cochrane Collaboration (Worthington, 2011) review did not reveal statistical significance to the prevention and treatment of the oral mucositis. The mentioned protocols protrude the necessity of multiprofessional care to prevent or reduce the severity of the oral mucositis induced by chemo and/or radiotherapy, as well as the education of the patients, relatives and health team for the handing of this affection.

**Conclusions:** The three topical interventions identified are essential for the management of oral mucositis for they are effective, don't demand high technology resources and have low cost. Implications for Nursing: The careful incorporation of this new knowledge in nursing clinical practice opens a new perspective on evidence-based practice, in order to provide an effective clinical care to patients undergoing BMT that present oral mucositis.

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## C 01 - Team-Based Learning Approaches

### The Impact of Process-Oriented Guided-Inquiry Learning (POGIL) in Fundamental and Medical Surgical Nursing 11 Courses

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#### Abstract

**Purpose of the study:** The Process Oriented Guided Inquiry Learning (POGIL) teaching method utilizes student centered, interactive learning rather than exclusively using a lecture style method. This innovative method has been shown in science disciplines and in fundamental nursing to be effective in providing positive student satisfaction with learning and grade improvement. The method involves students participating in small group work with the professor functioning as facilitator of learning not a lecturer. The purpose of this study is to compare class final grades, Assessment Technologies Institute, LLC (ATI) national standardized exam scores, demographic data, and satisfaction of students who are taking Fundamentals and Medical-Surgical 2 nursing classes in which POGIL group case scenarios are used with students in classes that do not use POGIL as a teaching strategy.

**Significance:** POGIL enhances teamwork in that it uses small groups of students interacting together to analyze a problem – oriented case study. Each of the students in the group is assigned a role that includes leader, recorder, manager or reflector (POGIL, 2016). The ability for nursing students to work effectively in a team through the POGIL process may help to prepare future nurses for a work environment that requires multidisciplinary teamwork. The Joint Commission (TJC) (2014) has identified teamwork as an essential factor in creating work environments that promote safe patient care.

A priority in nursing education is to enhance the development of critical thinking, clinical thinking and teamwork, which is encouraged through use of POGIL methodology. In a pilot study that compared using POGIL with a lecture based teaching method in a Fundamentals Nursing course those students in the POGIL group had higher mean scores on the ATI national standardized exam (Roller, 2015) The findings from this pilot study are consistent with previous POGIL studies conducted with science courses (Simonson & Shadle, 2013; Soltis, Verlinden, Kruger, Carroll, & Trumbo, 2015). Using pedagogy, such as POGIL in fundamental nursing education courses has been shown to improve final grades (Roller & Zori, 2017). POGIL methodology also enhances the use of teamwork, which may help prepare students to meet an essential competency for professional nursing. Students have reported a preference for a POGIL-based course rather than lecture only method (Case, Pakhira & Stains, 2013; Mulligan, 2014). Exploring POGIL as a teaching strategy is in alignment with NLN goal IV to promote evidence-based teaching practices through the scholarship of teaching and transform nursing education(NLN,2016).

Study Aims:

1. Examine and compare the demographics, pre-study GPA, final course grades and (ATI) national test scores of students in Fundamentals and Medical Surgical Nursing 2 sections, who comprise two groups: the experimental group will experience POGIL while analyzing case studies in the classroom. The control group of students will receive the same case scenarios but will not analyze them using POGIL in the classroom. They can choose to complete them individually. The completion of case studies with or without POGIL is not a graded assignment.
2. Describe the students' satisfaction with completing the case studies whether in a class that used POGIL or not in a class that used POGIL.

**Theoretical/Conceptual Framework:** The POGIL method was modeled on Piaget's Constructivist theory. In the process of learning, students must be active participants. Learning occurs by allowing students to work in groups and present the topics in class as instructors facilitate (McLeod, 2015). POGIL method participants in this nursing study will work in groups to discuss and answer questions in a case study; a student team leader presents the group's findings to the entire class and the instructor acts as a facilitator, which is consistent with Piaget's Constructivist Theory.

**Design/Methods:** This quantitative descriptive study used a comparative design, with two groups of students (Fundamentals and Medical-Surgical Nursing 2) who experienced POGIL while analyzing case scenarios in class and a control group who did not experience POGIL. A t-test was used to compare final grades, ATI scores, and satisfaction survey results.

**Setting:** A mid-size, private university in the northeastern United States was the setting.

**Participants:** A convenience sample of pre-licensure baccalaureate nursing students taking Fundamental in Nursing Courses during the junior first semester and Medical Surgical Nursing 2 in the senior final semester.

**Results:** Comparing the pre-GPA of courses and both Fundamentals and Medical-Surgical 2 groups was non significant. The experimental group Fundamentals (N=153) had higher ATI grades (75.69%) than control group (N=109) was (70.41%) and significant at  $p=.001$ . The final course grade of Fundamental experimental group was (88.19%), and the control group was (87.34%) revealing non-significance at  $p=.124$ . Subjects in experimental and control groups reported a better understanding of the course material, and greater satisfaction with grades in the Fundamental course.

The experimental group Medical Surgical Nursing 2 (N=60) had no significance in ATI scores (72.78%) and the control group (N=54) was (72.00%) with  $p=.722$ . The final course grades of Medical Surgical Nursing 2 experimental group was (85.31%), and the control group was (87.01%) revealing no significance at  $p=.09$ . Subjects in experimental and control groups reported a better understanding of the course material, and greater satisfaction with grades in Medical Surgical Nursing 2.

**Conclusion:** The results of this study revealed that Fundamental nursing students who experienced POGIL had improved ATI scores but had no significance in final grades. Students reported better course understanding and grade satisfaction compared with students who did not experience POGIL. These results may be attributed to students in the first course of clinical theory.

The results of this study revealed that Medical-Surgical Nursing 2 nursing students who experienced POGIL had no significance in final grades and ATI scores. Students reported better course understanding and grade satisfaction compared with students who did not experience POGIL. These results may be attributed to students in the final course of clinical theory.

The active learning and teamwork experienced during POGIL pedagogy may be beneficial as an effective student-centered learning to foster critical and clinical thinking and teamwork, which is essential for nursing graduates' professional success. Additional research using POGIL with a variety of nursing courses could be beneficial in educating undergraduate nursing students.

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## C 01 - Team-Based Learning Approaches

### Multidisciplinary Care: Using a Simple Approach to Promote Team-Based Learning and Patient Safety

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#### Abstract

Students enrolled in health professional degree programs often learn, in theory, of the roles and responsibilities of other health care team members in general. Little interaction is undertaken during their academic preparation, but rather this occurs when they are indoctrinated into their professional roles outside of academia. With national shortages of nursing and other health care professionals, employers are expecting new graduates to perform within the health care system as a highly functional member of the team (Masters, O'Toole-Baker, & Jodan, 2013).

Academic preparation for nursing and other healthcare disciplines has undergone few curriculum changes over the years; other than the implementation of patient simulation. New strategies to improve not only their individual level of readiness to care for simple to complex patient scenarios, but to apply knowledge learned in collaboration with multiple healthcare disciplines is essential to prepare students for today's workforce, to increase professional satisfaction, and to contribute to the improvement of quality patient centered outcomes (Interprofessional Education Collaborative Expert Panel, 2011). Educational strategies, implemented by a Northwest Pennsylvania university, have been shown to increase student's leadership ability, improve communication skills, utilize situation monitoring in the care of the patient, and increase their appreciation for other disciplines by incorporating an intraprofessional care model across curriculums.

TeamStepps<sup>®</sup>, developed by the Agency for Health Care Research and Quality (AHRQ), to improve communication and promote patient safety, and the SIMPLE<sup>®</sup> approach, a strategy developed and implemented by university faculty, were utilized to bring together health care professionals as a collaborative team (Agency for Health Care Research and Quality, (2011). Disciplines inclusive of nursing, radiologic science, respiratory therapy, and physician assistant students and faculty worked collaboratively to provide care for simple to complex patient care scenarios. Faculty incorporated a shared vision and content inclusion for their respective curriculum inclusive of respiratory conditions, trauma and cardiac arrest. This combination of strategies has been instrumental in redirecting educational methodologies that prepare our graduates to be workforce ready using a multidisciplinary interactive simulation based learning environment to deliver care.

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## C 02 - Caring in Nursing

### Nurses' Perception of Caring Using a Relationship-Based Care Model

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#### Abstract

Throughout its history caring has been a central tenet to the practice of nursing. Despite the significance of caring, multiple factors today threaten the ability of nurses to engage in caring and compassionate roles. The evolution of nursing science and emphasis on evidence-based practice have contributed to a shift from holistic care to a more technically oriented practice contributing to an erosion in the ethos of compassion (Straughair, 2012). Socioeconomic factors may play a role by students who enter the profession for non-altruistic reasons including salary and job security (Straughair, 2012). This trend is coupled with an underlying organizational culture and fast-paced unpredictable work environment which challenge the ability of the nurse to engage in caring relationships (Koloroutis & Trout, 2012; Straughair, 2012).

A model on Relationship-Based Care (RBC) was developed as a method for transforming the health care environment to facilitate patient-centered, relationship-based care (Koloroutis, 2004). At the center of relationship-based care is the concept of caring. Based on the Theory of Human Caring by Watson (1988) and the middle range Theory of Caring by Swanson (1993), the model includes dimensions of leadership, teamwork, professional practice, care delivery, resources, and outcomes (Koloroutis, 2004).

While considerable research has examined patient perceptions and outcomes in response to caring, only two studies examined nurses' perception of caring when using a relationship-based care (RBC) model. Winsett and Hauck (2011) observed statistically significant increases in both verbal and nonverbal caring behaviors by nurses between the pre-implementation and the 3-month and 12-month post-implementation periods of RBC using the Caring Behaviors Checklist. Porter, Cortese, Vezina, and Fitzpatrick (2014) found that participants had high perceptions of caring behaviors following implementation of a caring, professional practice model using the Caring Behavior Inventory 24 (CBI-24).

This study extends what is known about nurses' perception of caring using the Caring Assessment for Care Givers (CACG) instrument, a valid and reliable instrument. Unlike the CBI-24 which has been used with both patients and nurses, the CACG instrument was developed specifically for use with nurses in settings that use a RBC model. Using the CACG, nurses' perception of caring will be examined including the dimensions of caring that nurses report as most and least important. Additionally, the relationship between nurses' perception of caring will be explored for nurses who care for chronically ill, medical patients versus acutely ill, surgical patients. No previous research was identified which explored the relationship between nurses' perceptions of caring and the specialty area of practice when using a RBC model. Nurses who work with chronically-ill, medical patients who have a longer length of stay or recurrent hospitalizations may have greater opportunity for the development of nurse-patient connectedness, contributing to an overall higher perception of caring.

A cross-sectional, descriptive, and correlational design will be used. All registered nurses who provide direct patient care on medical-surgical units of a Midwestern medical center will be invited to participate.

Demographic results found that the typical respondent was female (90.4%), Caucasian (73.4%), 36.4 years of age, and held a baccalaureate degree (61.7%). Using the CACG, nurses reported a high perception of caring (4.29 out of a possible 5.0). The subscale, doing for, had the highest score while the subscale, knowing, had the lowest score followed closely by the subscale being with. No significant difference was found between nurses who work with chronically ill versus acutely ill patients ( $t = -0.923$ ,  $df = 83$ ,  $p = .358$ ). A small to moderate, positive relationship was found between the overall nurses' perception of caring score and the years of experience in nursing ( $r = .29$ ,  $p < .01$ ). There was no relationship found between the overall nurses' perceptions of caring score and the highest level of nursing education.

The finding of a high perception of caring using a RBC model is consistent with previous studies. The CACG subscale, doing for, describes the care nurses provide for patients who are unable to provide for themselves including more technically oriented behaviors. This finding is consistent with previous research. Porter, Cortese, Vezina, and Fitzpatrick (2014) found the highest perception of caring on the subscale for knowledge and skills. While direct comparison between the subscales on the CBI-24 and the CACG cannot be made, findings from both studies suggest that nurses highly value clinical knowledge and skills.

The CACG subscale, knowing, focuses on the nurse's desire to understand events of those in the nurse's care while the subscale, being with, described the nurse's ability to be emotionally present to others. Using the CBI-24, Porter, Cortese, Vezina, and Fitzpatrick (2014) found the lowest score on the subscale of positive connectedness. While direct comparison between the two instruments cannot be made, results from both studies may reflect the challenge that nurses' perceive in fully meeting the therapeutic demands of individuals and families given required job expectations, unpredictable events, or other personal and external factors in a fast-paced, intensive, and complicated clinical environment.

The study found no significant relationship between nurses' perception of caring and the area of nursing practice. Nurses who work on medical units with chronically ill individuals are confronted with similar obstacles to the development of therapeutic relationships as are nurses who work on surgical units. It may be these challenges rather than the opportunities to build longer or ongoing relationships that account for the lack of a relationship in nurses' perceptions of caring. The finding that older, more experienced nurses report higher perceptions of caring suggests that caring might be a skill that can be enhanced through situation-based, experiential learning that occurs with longer clinical practice.

The nurse is the single most important healthcare provider for patients during hospital encounters. It is the nurse who coordinates and communicates with the health care team regarding the patient's plan of care, monitors and assesses for changes in the patient's status, and serves as a patient advocate for changes in the health care plan. Nurses need to recognize the importance of their caring behaviors on patient advocacy. Nurse caring has been found to be a major factor in the patient's intention to recommend or return to a health care facility which poses implications for the financial well-being of the health care facility (Burtson & Stichler, 2010).

While nurses report an overall high perception of caring, lower mean scores on the subscales of knowing and being with suggest that there is still room for improvement. Nursing leadership along with hospital administration should maintain or enhance programs to support use of the relationship-based care practice model. Approaches could include recognition programs for staff who demonstrate exemplary, compassionate patient care. Recognizing nurses for their exemplary care signifies a valuing of the behavior by administration and encourages continued growth of a therapeutic, caring environment.

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## C 02 - Caring in Nursing

### The Caring Studio Experience: Integrating QSEN With Caring Practice Competencies, a Research Study

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#### Abstract

**AIM:** To determine if an educational program called the Caring Studio Experience specifically designed for undergraduate nursing students, will improve nursing students' caring abilities, professional values, and self-rated quality and safety competencies.

**BACKGROUND:** Caring practice is foundational to the nursing profession. Currently, traditional baccalaureate nursing education stresses the science of nursing care with little education spent on the art of nursing--caring practice as it relates to Quality and Safety in nursing practice (Benner, Tanner & Chelsea, 2009). The Caring Studio Experience (CSE) was implemented as a pilot program and a repeat study has been conducted. The CSE was implemented integrating the Quality and Safety in Educating Nurses (QSEN) competencies with caring practice strategies with the goal of strengthening the student nurse's caring practices and quality outcomes. The CSE is a series of experiential sessions for student to attend outside of class time. Caring practice and the impact on quality outcomes are explored under three guiding principles; caring for self, caring for colleagues and caring for patients and families. The CSE blends a variety of teaching strategies including role-play, reflective practice, mentoring, and dialogue to engage students in learning about caring practice. Students learn about caring practice from the perspective of caring for self, colleagues as well as patients and families. The CSE integrates the resources from the all the arts; music, theater and dance and collaborates with students in Theater & Dance department to incorporate simulated care experiences, improvisational theater experiences with care studies to illustrate the range & depth of care experiences. Outcome measures include a pre-posttest measuring caring abilities and quality knowledge and student evaluations.

**SIGNIFICANCE TO NURSING:** This study explores the impact of using caring practice teaching methods integrated with the Quality and Safety Education in Nursing (QSEN) framework to seamlessly meld caring and quality into foundations of nursing practice as students learn these concepts and application to practice (Penprase, Oakley & Tenres, 2013). Today's healthcare environment is challenged with continuous quality improvement. Quality research is strongly linked to the skillset associated with the QSEN competencies of Patient Centered Care, Teamwork & Collaboration and Evidence Based Practice. (AHRQ, 2017; QSEN, 2017). Caring practice competencies will enhance a person's ability to provide patient centered care, work better in teams while understanding how it all relates to QSEN and best practice. Academia needs to incorporate innovative educational methods to prepare future nurses to address the quality chasm as we shift to higher expectations of quality care through QSEN.

**CONCEPTUAL FRAMEWORK:** The Evolving Nature of Caring Knowledge and Practice (Grobbel, 2017, Watson, 1999) is the conceptual model for this study. It is based on the belief that quality patient care is influenced by who a person is and what a person knows. In other words, the nurse's values, attitudes, experiences, and behaviors combined with what the nurse has learned through education, practice, and experience directly influence the quality of patient outcomes. Enhancing students' knowledge and perceptions will increase their knowledge and influence their quality and caring practices.

**METHODS:** A quasi-experimental pretest posttest and correlational design using a convenience sample of self-selected pre-licensure baccalaureate nursing students (N = 74) completed the CSE. Caring and quality were measured using the Nursing Quality and Safety Self-Inventory (NQSSI), an 18-item self-rated inventory developed to measure nursing students' self-rated knowledge, skills, and attitudes regarding quality and safety competencies (Piscotty & Grobbel, 2012) and the Caring Abilities Inventory (CAI), a 37-item self-rated inventory developed to measure students' perceptions about their ability to care for others (Nkongho, 1990).

**RESULTS:** Initial pilot study in 2012 and the repeat study in 2016 both demonstrated significant results in the Knowing subscale of the Caring Ability Inventory (CAI) ( $t_1; p = 0.0022$ ,  $t_2; p = 0.043$ ) and the Quality and Safety Self Inventory (NQSSI) ( $t_1; p = .000$ ,  $t_2 p = 0.000$ ). Both studies indicate an ongoing effectiveness of using Caring Studios to increase caring abilities and QSEN knowledge.

**CONCLUSION:** Nursing students whose foundation for clinical practice is based on caring and quality knowledge will be better prepared to deliver safe, high quality, patient-centered care and understand the important link between caring and QSEN competencies (Buckley, 2014).

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## C 03 - Evaluation Techniques in Clinical Learning

### A Program-Wide Clinical Performance Grading Rubric: Reliability Assessment

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#### Abstract

**Background and Significance.** Clinical instructors expect to see student performance improve, however attaching a grade to that performance remains subjective.

**Purpose of the study/project.** To evaluate reliability of an undergraduate universal clinical performance grading rubric.

**Literature Review:** Clinical instructors expect to see student performance improve; however, attaching a grade to performance remains subjective (Amicucci, 2012; Isaacson & Stacey, 2009; Oerman, Yarbrough, Saewert, Ard & Charasika, 2009). Standardized documented evaluation methods can improve objectivity, define expected competencies, are easier to defend, avoid litigation, and empower the instructor, by shifting the paradigm from highlighting student errors to an educational perspective (Bofinger & Rizk, 2006; DeBrew & Lewallen, 2014; Tanicala, Scheffer & Roberts, 2011). Evaluating performance based on a program-wide grading rubric to measure clinically specific criterion-based learning outcomes appears to be a novel approach in clinical nursing education (Bourbonais, Langford & Giannantonio, 2008; Gantt, 2010; Heaslip & Scammell, 2012; Lasater, 2007).

**Sample Description/Population.** Convenience sample of 58 first semester clinical undergraduate baccalaureate nursing students.

**Setting.** Seven clinical instructors in nine clinical sections.

**Method/Design & Procedure.** A universal grading rubric with nine performance outcomes was tested retrospectively for measures of reliability and consistency. Summative and formative measures were compared. Written assignments were compared to clinical performance. Clinical instructors responded to questions related to the accuracy of the calculated letter grade with the use of the rubric.

**Results/Outcomes.** Significance was found between midterm ( $M = .89$ ) and final performance evaluations ( $M = .94$ ) ( $t(57) = -15.896, p < .001$  (two tailed) showing an increase in final performance. Using independent samples, no correlation was found between final written work and performance evaluations ( $r(56) = .164, p > .05$ ) and a significant difference was noted between written work ( $M = .973$ ) and performance evaluations ( $M = .915$ ) ( $t(114) = 14.536, p < .001$ ). Cronbach alpha scores for all nine performance outcomes equaled .917, demonstrating excellent internal consistency. All clinical instructors agreed that the results accurately measured student performance.

**Conclusions/Implications.** Use of the grading rubric was effective in measuring student clinical performance and provided an objective grade calculation. Student's written work consistently scored higher than clinical performance. This grading rubric, when used in an undergraduate clinical experience, has the potential to increase reliability in grading clinical performance.

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## C 03 - Evaluation Techniques in Clinical Learning

### Implementing Peer Evaluation of Clinical Teaching

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#### Abstract

Clinical education provides the nursing student opportunities to learn the practice of nursing. In the clinical setting, the nursing student applies classroom knowledge to the real patient care situation. The clinical instructor facilitates this important process by assisting students to integrate knowledge into their practice, improve their critical thinking skills, and prepare them for practice as a registered nurse. A clinical instructor can enhance or impede the nursing student's learning. Given that clinical practice is important to nursing students' professional education, it is crucial for clinical practice to be evaluated for effectiveness. To address this issue, this project examines the question-**What might peer evaluation of clinical teaching look like?**

Part one of the project presents background on types of feedback currently used to evaluate clinical teaching effectiveness. Both student and peer evaluation are utilized as sources of evaluative information for faculty appraisal and development. A review of the literature also identified specific teacher attributes that likely contribute to effective clinical instruction. These identified attributes should be considered for incorporation into a peer evaluation system of a clinical teaching program.

Part two of the project reports the methods and data analysis used to answer the research question. A mixed method approach was utilized with both quantitative and qualitative methods. Survey data were collected from Temple University nursing faculty and select NLN accredited RN nursing programs. In addition, personal interviews were conducted with Temple University faculty who participated in a pilot study of peer evaluation of clinical teaching. Findings from these data sources showed that faculty (both Temple University and NLN accredited schools) valued peer feedback on their teaching and advocated for a program for peer evaluation of clinical teaching effectiveness. The data also revealed resources needed to successfully implement a program.

Part three of the project describes a feasible solution for peer evaluation of clinical teaching. This proposed program of peer evaluation of clinical teaching is designed as a formative process of faculty feedback. This section outlines a program description, implementation strategies, needed fiscal resources, and a program evaluation plan.

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## C 04 - Faculty Use of Technology

### Understanding the Effects of Technology Acceptance in Nursing Faculty: A Hierarchical Regression

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#### Abstract

**Introduction:** Nursing faculty prepare new nurses to work in complex, technological environments which creates an urgency to integrate new clinical technology into curricula at a rapid pace. Faculty are also expected to use technology in teaching to stimulate and facilitate learning. Pressure for faculty to teach traditional courses in non-traditional ways has increased in response to student demand and trends in nursing education. Technology and its integration can create stress, called technostress, which affects the attitudes and use of technology.

The resulting stress may undermine job satisfaction and faculty role retention. It is important to recognize the effects of technostress in nursing faculty and manage effectively to improve both the quality of work life and retention. Burgeoning technology with varied levels of administrative support poses a challenge to academic stability. Increasing expectations for nursing faculty to embrace and incorporate new technology is occurring at the same time faculty members are teaching growing numbers of students who must be prepared to work with technology in high stakes health care arenas. How much these issues create technostress and influence their attitudes, use of technology, job satisfaction, and intent to stay is unclear. This study aimed to fill that gap.

The purpose of this study was to examine the effects of nurse faculty technostress, perceived usefulness, ease of use, and attitude toward using technology on use, job satisfaction, and intent to leave the profession.

**Methods and Measurements:** Below you will find bulleted the methods used for this study:

- Purposive, non-probability sampling of Southern Regional Education Board (SREB) member nursing schools. **121 schools of nursing** located across the south eastern United States were included in this study and associate, baccalaureate and graduate nurse faculty ( $N =$  approximately 4,511) were invited to participate.
- Of the 4,511 emails sent, 1161 faculty participated (**26% response rate**). Data were cleaned and missing data reduced the sample size to **1017**.
- Study data were converted to an electronic data set and analysis of variables was performed using SPSS Version 23. Exploratory data analysis was done using histograms, skew, and kurtosis to evaluate normality and Levene's test to evaluate homogeneity of variance. Transformations were done for data that were not normally distributed but did not yield better results.
- Descriptive statistics such as age, gender, educational level, and academic rank were used to characterize the sample. Hierarchical regression analysis was used to test three hypotheses with variable entry based upon the model.
- Nurse Educator Technostress Scale (NETS) yielded an internal consistency reliability of  $\alpha = 0.94$ .
- Technology Acceptance Model (TAM) yielded the following for internal consistency reliability:
  - Perceived usefulness  $\alpha = .96$ , Perceived ease of use  $\alpha = .97$ , Behavioral intent to use  $\alpha = .92$ , and Actual system use  $\alpha = .96$ .
  - Attitudes Toward E-Learning (ATEL) yielded an internal consistency reliability of  $\alpha = .89$ .
  - The Job in General Scale (JIG) had an internal reliability in this study of  $\alpha = .90$ .

**Results:** Mean substitution was performed via recoding missing data with the average instrument mean ( $N = 1017$ ) for all models.

**Ha1:** Technostress, perceived usefulness, perceived ease of use, attitude toward using, and behavioral intention to use technology explain variation in technology use. The model was statistically significant,  $R^2 = .80$ ,  $F(5,1011) = 815.81$ ,  $p < .000$ . **The five variables explain 80% of the variation in technology use indicating a strong model.** Technology use was predicted by lower levels of technostress and higher levels of perceived usefulness, perceived ease of use, attitude toward using, and behavioral intention to use. *Technostress entered as step 1 had the best chance of explaining variance yet only accounted for 4.3% of the variation in use.*

**Ha2:** Technostress, perceived usefulness, perceived ease of use, attitude toward using, behavioral intention to use, and use of technology explain variation in job satisfaction. The model was statistically significant,  $R^2 = .10$ ,  $F(6,1010) = 19.460$ ,  $p < .000$ , **which demonstrates the six variables explain 10% of the variation in job satisfaction.** Job satisfaction was predicted by lower levels of technostress and higher levels of perceived usefulness, behavioral intent, and system use. Neither attitude nor perceived ease of use were significant predictors of job satisfaction.

**Ha3:** Technostress, perceived usefulness, perceived ease of use, attitude toward using, behavioral intention to use, use of technology, and job satisfaction explain variation in intent to stay in the profession. The model was statistically significant,  $R^2 = .04$ ,  $F(7,1009) = 7.383$ ,  $p < .000$ , which demonstrates the **seven variables explain 4% of the variation in intent to stay.**

**Discussion:** The first study model validated the TAM model with the addition of technostress and explained 80% of the variation in system use. The second model added job satisfaction as an outcome variable after technology use. While the goal was to see if the TAM model fostered better understanding of job satisfaction, it did not perform well; and perceived ease of use and attitude toward using technology were not significant predictors of job satisfaction. Thus, *perceived usefulness, attitude toward using, and system use positively predicted job satisfaction, while technostress negatively impacted job satisfaction.* The 3<sup>rd</sup> model sought to evaluate whether it fostered understanding of nursing faculty intent to stay in the job. On average the faculty intended to stay 9 years with a  $SD$  of 6.81, range of 0 to 40 years. 40% intended to stay 5 years or less. Technostress, attitude toward using, behavioral intention to use, and use of technology were insignificant predictors of intent to stay. Therefore, *perceived usefulness, perceived ease of use, and job satisfaction predicted intent to stay in the profession.* This model was the lowest performing of the three studied with only 4% of prediction. The assumption driving this study was that technostress would be a strong predictor of technology

use, job satisfaction, and intent to stay in the profession. Surprisingly, technostress was found to be a weak predictor for technology use and job satisfaction and irrelevant with intention to stay in the profession. Although surprising, the large sample size and addition of technostress did provide strong study results with 80% explained variance in the TAM model.

**Conclusion:** Findings revealed that technostress undermines job satisfaction and technology use in nurse faculty, while supporting many other variables that positively influenced technology use, job satisfaction, and intent to stay in teaching. This study along with future research should propel administration and nursing programs toward engagement to create support of faculty struggling with technology issues to reverse technostress and recognize key variables that promote job satisfaction and influence faculty intent to say.

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## C 04 - Faculty Use of Technology

### Subscription Learning: A Technology-Based Component of Clinical Faculty Orientation

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#### Abstract

This pilot study was designed to explore the potential of a technology-based subscription learning experience for use in clinical faculty orientation. Orientation experiences for clinical nurse faculty are pivotal to their success and development, but little evidence exists to guide high quality orientation experiences (Santisteban & Egues, 2014). The challenges associated with the new faculty phase are well documented and represent a serious threat to positive program outcomes (Cangelosi, Crocker, & Sorrell, 2009; Peters & Boylston, 2006). Evidence and expert opinion do suggest, however, that better nurse faculty orientation experiences can lead to improved faculty retention and better student outcomes (Davidson & Rourke, 2012; Hewitt & Lewallen, 2010; Johnson, 2016). Adequate nurse faculty orientation programs consist of learning experiences that includes education about department policies and procedures as well as best practices for promoting student success (Hewitt & Lewallen, 2010). Unfortunately, new nurse faculty are often overwhelmed with a barrage of information during a traditional faculty orientation that makes recall and implementation difficult.

Subscription learning is an emerging style of education that combines modern technologic tools with learning science (Thalheimer, 2016). Instead of exposure to a large amount of learning material at one time, learners are prompted with an intermittent stream of small learning sessions. A subscription learning platform was developed and tested for potential use in clinical faculty orientation. Learning experiences were developed by a full-time nurse faculty member and a community partner in the IT industry. Software-as-a-service (SaaS) products were utilized to develop a low-cost subscription learning platform that included content and evaluation opportunities for each lesson. Eight lessons were developed, each targeted to take between two and five minutes to complete. Content for each lesson included critical topics in the nursing student clinical evaluation tool including holism, assessment, communication, diversity, documentation, compassion, evaluation, and models/frameworks. Two lessons each week were delivered to consenting clinical faculty members over the course of four weeks. Feedback was assessed through a survey including Likert-style questions and qualitative feedback. Nine clinical faculty provided feedback on the subscription learning platform. Results indicated positive impressions of the learning methodology and support for future use in clinical faculty orientation. Clinical faculty reported utilizing techniques and suggestions provided in the learning experience with their clinical groups. Feedback did suggest that clinical faculty desired more depth in the content provided in each lesson. This study supports further exploration of subscription learning as a component of a comprehensive clinical nurse faculty orientation program. Future directions may include development of a stand-alone application that would streamline evaluation and monitoring by clinical supervisors. This technology could ultimately be used to promote high quality clinical experiences for nursing students through the development of high quality clinical instructors.

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## C 05 - Managing Intimate Partner Violence

### Examining Knowledge and Retention Using Storytelling versus Board Game Toward Improving Intimate Partner Violence Education

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#### Abstract

**BACKGROUND:** Over 10 million incidents of Intimate Partner Violence (IPV) occurs annually in the United States (CDC, 2015). The World Health Organization [WHO], (2013), reports 38% of all female murders are committed by an intimate partner. **PURPOSE:** The purpose of this quasi-experimental pretest/posttest design is to evaluate the use of storytelling compared to simulation board game as an instructional strategy to enhance or improve IPV education in undergraduate baccalaureate nursing students. Unfortunately, identifying IPV victims is a challenge for students to recognize because warning signs are often subtle or absent (Bradbury-Jones, Appleton & Watts, 2016; Tufts, Clements & Karlowics, 2008; Schwartz, 2007), and the lack of IPV content integrated in the classroom (Tuff et al., 2008). **METHODS:** This study was conducted in a historically black university on the east coast with nursing students (n =37) enrolled in one of two seven-week community health classes in the spring of 2017. Block 1 students (n=18) received IPV education delivered in storied format using PowerPoint to highlight key points. Block two students (n=19) received IPV instruction through a simulated board game. At the information session, prior to the start of the course, students who agreed to participate completed demographic information and pre-test questions. Immediately following the intervention, students completed post-test questions and a survey evaluating the methodology used. Three-weeks following the intervention students answered the same post-test questions to evaluate knowledge retention. During the final exam, students were given similar yet different questions to address concerns of question memorization rather than knowledge comprehension. **RESULTS:** Results suggest both groups of students agreed or strongly agreed each method brought additional awareness and desire to help victims of IPV. All students agreed the simulation board game was structured to meet content objectives, but not all agreed this method changed their opinion or provided further insight in recognizing/responding to victims of IPV. Pre-test/Post-test questions showed improvement of scores for participants using the simulation board game over students who heard the IPV story. **CONCLUSIONS:** Results of this study suggest stories are a powerful source of persuasion; however, simulation board games may improve IPV knowledge acquisition and retention. IPV experts agree there is a need for educational interventions to change attitudes and beliefs about IPV and more studies on their use (Dill-Shackleford, Green, Scharrer, Wetterer, & Shackleford, 2015). Recognizing the limitations of a small sample size, participant demographics, and previous IPV knowledge suggest that even more research is needed to evaluate the effectiveness of storytelling and simulation board games for IPV education in undergraduate nursing.

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## C 05 - Managing Intimate Partner Violence

### Evaluation of a Clinical Workshop to Improve Students' Readiness to Manage Intimate Partner Violence

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#### Abstract

Domestic violence (DV), also called intimate partner violence (IPV), is a major health issue affecting a significant portion of the population. Roughly one in three American women (24.3%) will have experienced physical violence by an intimate partner in her lifetime (De Boinville, 2013). This includes a variety of behaviors from slapping, pushing or shoving to severe acts of violence such as being beaten, raped, burned, or strangled. Recent global prevalence figures indicate that approximately one in three (35%) of women worldwide have experienced either physical and/or sexual violence in their lifetime (World Health Organization [WHO], 2016). In addition to the immediate acute injuries from an assault, violence can have devastating effects on victims' long-term health (Centers for Disease Control and Prevention [CDC], 2016). Family members and the community are also affected by the violence. Nurses are in a key position to identify victims, provide support and refer victims to appropriate resources (De Boinville, 2013).

Physical and sexual assaults, or threats to commit them, are the most apparent forms of domestic violence. However, perpetrators of DV may use a larger system of abuse, including emotional, economic, social isolation, intimidation, coercion and threats, to maintain power and control over the victim. There are many myths about domestic violence that hinder understanding of the problem. Many believe that the DV is not a problem in their communities, that domestic violence only affects poor women of color, and that drugs and alcohol are the cause of DV. Others believe some people deserve to be hit and that if the situation were that bad, a victim would just leave (Domesticviolence.org, 2015). There is a need to replace these false ideas with the most current and accurate knowledge available.

Despite the enormity of the problem, there is little information in the literature that describes effective educational interventions related to domestic violence for nursing students. Nursing students may not be receiving the educational preparation to correctly assess, provide support and referral, and to document domestic violence interventions. Opportunities for students to engage with victims of violence in the clinical setting are rare. Confidentiality and safety are paramount and limit exposure. Many nurses feel unprepared to deal with DV and do not demonstrate best practices in the clinical setting. Students learn by observing the behaviors of clinicians in the health care setting. Often screening for violence is omitted or is done incorrectly. Many students are graduating from their programs with limited or no domestic violence education. Some students observe inadequate assessment and nursing care of victims of violence, thus reinforcing inappropriate care. The lack of experience or exposure to incorrect care can have a profound effect on students' ability to provide comprehensive assessment, support and documentation to victims of violence (Bryant & Benson, 2015).

Giving students information to increase their knowledge, experience, and skill, and promote positive attitudes toward victims of violence is essential. The purpose of this research was to determine the effect an evidence-based educational intervention had on baccalaureate nursing students' ability to care for victims of DV. The educational intervention was a six-hour clinical workshop that included an evidence-based lecture, films, video clips, games, role-play, guest speakers, and hands-on activities that simulate the nursing role related to assessment, support, referral, and documentation of nursing interventions related to DV.

Evaluation of the workshop was done using a quasi-experimental design. Students in the control group experienced traditional clinical, while students in the intervention group experienced traditional clinical with one of their clinical days spent attending the clinical workshop. Nursing students at a four-year, private university in the Northeast were evaluated at the beginning and end of the Women's Health course using the Provider Readiness to Manage Intimate Partner Violence Survey – Revised (PREMIS-R). The survey measures three constructs, Perceived Preparation, Actual Knowledge, and Opinions. Students who experienced the workshop had improved scores for Perceived Preparation and Opinions. Actual Knowledge scores were unchanged. Students felt better prepared, more confident, and had attitudes that would empower them to provide improved care for victims of violence.

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## C 06 - NCLEX® Success Strategies

### Exploration of Transcultural Self-Efficacy Strength and NCLEX-RN® Success in a Concept-Based Curriculum

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#### Abstract

Teaching cultural care to students with variations in life experiences prior to formal nursing education is complex. Nursing research provides evidence of changes in measurement scores that are not always statistically significant because of the small sample sizes correlated to selected outcomes. Data translation strategies exploring curricular program outcomes may contribute to the preparation of nursing student for NCLEX® (National Council Licensure Examination for Registered Nurses) success and future practice in diverse health care environments (NCLEX-RN® Examination, 2015). Critical thinking has been a significant predictor of first-time NCLEX® success in a study by Romeo (2013).

**Purpose and Significance:** The purpose of this research is to explore student changes in Self-Efficacy Strength (SES) measured with the 83-Item Transcultural Self-Efficacy Tool (Jeffreys, 2010) and the relationship of successful NCLEX® achievement in a Nursing Education program that has implemented a Concept Based Curriculum (CBC). According to the Robert Wood Johnson Foundation (RWJ, 2011), NCLEX® serves as the benchmark for achievement of safe patient centered care. The focus of a CBC is commonality of assessments and plans for nursing interventions in the care of diverse clients and settings (Giddens, Caputi, & Rodgers, 2014). CBC uses a conceptual approach to reduce content saturation in the application of nursing process along the health-illness continuum (Hendricks & Wangerin, 2017). The Transcultural Self-Efficacy Tool (TSET) provides a measure of students' perceptions of cultural awareness caring for diverse groups (Fisher, 2014). Exploring TSET scores and NCLEX® success contributes to knowledge about the complex contributions for nursing education.

**Methods:** A cross-sectional descriptive correlational design with logistic regression was used, TSET scores were used as the independent variable (IV) and first time success in NCLEX® licensure was used as the dichotomous dependent variable (DV). The data was collected in two cohorts of pre-licensure students participating in a Concept Based Curriculum (CBC) in the Mid-west.

The TSET scores relate normal progression of perceived self-efficacy beliefs reflecting Self-Efficacy Strength (SES) measured over time. The TSET was developed by Jeffreys (2010) and is an 83 item measure with three subscales reflecting knowledge development and confidence in the cognitive, practical, and affective domains. The TSET has supported reliability with reported Cronbach's alpha 0.92-0.98 (Jeffreys & Dogan, 2010). Criterion related validity suggests that SES is influenced by cultural care experiences and changes over time. Nursing students more often score higher in the affective dimensions of competence and lower in the cognitive dimensions. Students as novice learners generally score lower as compared to advanced learners or professional nurses in practice with years of experience.

The NCLEX® is administered using Computerized Adaptive Testing (CAT) with a controlled percentage of questions. The category of Human Functioning assesses respondents' knowledge about alterations along the wellness continuum (NCLEX® Examination, 2015). The NCLEX® dimensions of Human Functioning assess cognitive, practical, and affective domains and provide a good match to items on the TSET to provide a score about perceptions of Self-Efficacy Strength in cultural care. Specific items on the TSET measure efficacy beliefs about growth and development, self-concept, communication, sleep, rest, spiritual care, grieving, ethical concerns, and cultural beliefs (Jeffreys, 2010).

**Results :** TSET subscale scores were evaluated with paired *t*-tests and all three revealed statistically significant increases in scores in the sample (all two tailed *t*-tests). A paired-sample *t*-test was calculated to compare the mean pretest TSET-Cognitive score to the mean final TSET-Cognitive score. The mean on the pretest was 6.93 (*sd* = 1.57) and the mean on the final TSET-Cognitive was 8.32 (*sd* = 1.30). A significant increase from pretest to final TSET-Cognitive was found ( $t(57.31) = 80, p < .000$ ). A paired-sample *t*-test was calculated to compare the mean pretest TSET-Practical score to the mean final TSET-Practical score. The mean on the pretest was 6.81 (*sd* = 1.65) and the mean on the final TSET-Practical was 7.99 (*sd* = 1.65). A significant increase from the pretest to final TSET-Practical score was found ( $t(43.43) = 80, p < .000$ ). A paired-sample *t*-test was calculated to compare the mean pretest TSET-Affective score to the mean final TSET-Affective score. The mean on the pretest was 8.62 (*sd* = 1.04) and the mean on the final TSET-Affective was 8.91 (*sd* = .98). A significant increase from pretest to final TSET-Affective score was found ( $t(81.20) = 80, p < .000$ ). Logistic regression was conducted to explore the relationship of changes in each TSET subscale score to NCLEX® success passing score. Growth in TSET subscale scores were analyzed. After controlling for cohort, gender, and racial/ethnic status, there was no significant contribution of TSET-Cognitive or TSET-Practical score to predicting the likelihood of passing the NCLEX®. The change in the TSET-Affective subscale is marginally significant ( $p < .08$ ) on the pass rate ( $\beta = 0.818$ ). As noted, nursing students more often score higher in the TSET-Affective subscale throughout the times of testing and there is less increase in this score over time (Jeffreys, 2010), yet the small changes that do occur contribute strongly to increasing the likelihood to pass the NCLEX®. The preliminary results of analysis have potential implications in teaching professional nursing and translation into educational practice or policy.

**Impact on Learner Preparation and Translation to Education:** This research contributes to knowledge about education of professional nurses and shares findings that explore the relationship of cultural Self-Efficacy Strength (SES) to success with NCLEX® within a Concept Based Curriculum (CBC). Changes in TSET scores assessing SES impact learner preparation and provide evidence of the cognitive, practical, and affective domains of learning. Discussion and exploration of data with faculty in CBC is in progress to determine a theoretical model to guide curricular initiatives that will include measurement of quality outcomes in educational processes.

Future research is in process with standardized testing to further explore program outcome data to continue to generate evidence about teaching and learning. Suggestions for translation of evidence into teaching practices with enhanced integration of clinical components, simulation, and practical experiences in the community is indicated. Reflective narratives with journaling may provide data about student perceptions supporting assessment of the affective domain of learning and abstract concepts of significance to providing health services (Decker, Hensel, Kuhn, & Priest, 2017). Bernard (2015) suggests exploration of the attributes of student engagement, motivation, and resilience may provide insight for the development of learner-centered strategies in the academic environment. Additional research about student learning through the use of reflective narratives expands understanding of the student nurse perceptions of cultural competence, human functioning, care planning in diverse populations, critical thinking processes, and the affective domain – all significant components that impact learner preparation.

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## C 06 - NCLEX® Success Strategies

### Mastering the Content: A Systematic Evidence-Based Approach to Nursing Program Success

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#### Abstract

Nurse educators have been looking for an elusive set of pre-licensure nursing program admission criteria resulting in zero attrition and 100% first time National Council Licensure Examination – Registered Nurse (NCLEX-RN) pass rate since nursing education left the hospitals and moved into the collegiate setting (Romero, 2013). Should face-to-face interviews or essays be required? What is the minimum grade point average (GPA) to guarantee not just program completion, but passing NCLEX-RN the very first time? Should programs require a minimum score on a standardized nursing admission test and what should the score be? Will these preadmission requirements lead to a zero attrition rate due to course or clinical failure? Research has determined a system wide approach to program development, evaluation, and revision is linked to high rates of continued progression and NCLEX-RN first time pass rate success (Carr, 2011; Cole & Adams, 2014; Koestler, 2015; Serumbus, 2016). The system wide approach is based on continuous program assessment and evaluation providing data to guide improvements and change based on the evidence.

At a small southeastern university traditional prelicensure Bachelor of Science in Nursing (BSN) program the most recent evidence indicates the science GPA of the admission criteria as most predictive of program success and has shown the importance of learners “Mastering the Content” of the nursing curriculum in order to be successful in both program completion and the first time when taking NCLEX-RN. Mastering the Content is not just passing courses, achieving the 75% exam average for course exams, or obtaining a specific benchmark on a standardized end of course exam (Wiles, 2014). Mastering the Content starts with building a strong curriculum founded on the knowledge and skills of general nursing practice, exemplary teaching, and student utilization of metacognitive learning strategies. Mastering the Content continues with student application of the comprehensive foundation and metacognitive strategies to perform an accurate nursing analysis and judgment in order to choose the safest, best, or priority nursing action. Implementation of an introduction to nursing school success course, identification of and working with at-risk students, course exam review, and ending with an NCLEX prep course are also important for learner success in Mastering the Content.

The results obtained during the continuous process of program assessment and evaluation, implementation of the Mastering of Content curriculum and active learning enhancements, and regression analysis of student admission requirements support an evidence-based multifaceted system approach to program reform. Analysis of the data supported (a) modification of admission criteria, (b) implementation of a nursing program orientation course, (c) using technology enhanced active learning strategies to promote retention of learning, (d) providing students with opportunities to learn how to develop metacognitive learning tools to assist in Mastering the Content, and (e) an NCLEX preparation course. The end result demonstrated a greater than 10% increase in NCLEX-RN first attempt pass rates and decrease in attrition rate for course failure.

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## C 07 - Psychometric Testing

### Development and Psychometric Testing of the Debriefing for Meaningful Learning Inventory©

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#### Abstract

**Purpose:** The purpose of this study was to determine if the Debriefing for Meaningful Learning Inventory® (DMLI) is a valid measure of the debriefing method Debriefing for Meaningful Learning® (DML).

**Background:** The evidence of improved learner outcomes through simulation debriefing has increased in the literature as the use of simulation has proliferated throughout nursing education (Hayden, Smiley, Alexander, Kardong-Edgren, & Jeffries, 2014). Because of the significance of the learning that occurs during debriefing (Shinnick, Woo, Horwich, & Steadman, 2011), the National Council of State Boards of Nursing (NCSBN) (Alexander et al., 2015) and the International Nursing Association for Clinical Simulation and Learning (INACSL Standards Committee, 2016) have recommended that debriefers receive formal training in a theory-based debriefing method to ensure consistent learning outcomes. However, it is unknown how debriefing training improves the ability to apply a debriefing method with learners. Indeed, because of the lack of valid instruments to measure the application of specific debriefing methods, it is not known how a debriefer enacts an evidence-based debriefing method during debriefing.

**Instrument Development:** DML is a theory-based debriefing method adopted widely across nursing education because of the improved clinical reasoning demonstrated with nursing students (Dreifuerst, 2012). DML facilitates guided reflective thinking using Socratic questioning through the phases of the six E's: engage, explore, explain, elaborate, evaluate, and extend. The Debriefing for Meaningful Learning Evaluation Scale® (DMLES) was developed as a behaviorally anchored rating scale. In psychometric testing, the DMLES demonstrated internal consistency (Cronbach's alpha = 0.88), face validity, and content validity (scale-level CVI 0.92) (Author & Dreifuerst, 2016). The DMLI was developed from the DMLES to explore how a debriefer describes their understanding of the central concepts of DML, and their application of the behaviors of DML during debriefing. While the DMLES assesses observed DML debriefing behaviors, the DMLI was developed to further understand how a debriefer understands DML and subsequently applies the method with learners. Therefore, the 31-item DMLES was modified into the 57-item DMLI to comprehensively explore a debriefer's understanding and application of DML. Five items of the DMLI assess the understanding of the DML central concepts with binary options of *yes* or *no*. Fifty-one DMLI items describe application of DML debriefing behaviors, scored with ordinal frequency options of *always*, *sometimes*, and *never*.

**Methods:** A confirmatory factor analysis was performed to determine if the 51 application items of the DMLI is a valid measure of DML. A latent class factor analysis (LCFA) was conducted since LCFA is the most common model-based clustering method used with discrete data (Dean & Rafferty, 2010). LCFA was used to identify latent case subtypes from the DMLI data set, and estimate parameter values for the model, thereby confirming the measurement theory of DML. The bootstrapping approach was used, requiring no assumptions of the DMLI data. To assess model fit, cross-classification frequencies were compared to the expected frequencies predicted by the model.

**Sample:** Known debriefers and members of INACSL were recruited for participation in this study. The DMLI was completed by 234 nurse educators who reported having received debriefing training, and facilitated simulation debriefing with baccalaureate prelicensure nursing students.

**Results:** The DFactor model within Latent GOLD® 5.1 (2015) was used to estimate cluster models within the DMLI data. The latent class approach to the DMLI data supported a six-class DFactor model, confirming the measurement theory of the six E's of DML. The six class DFactor model provided a good fit to the DMLI data, L-squared = 7.0803 with 85 degrees of freedom;  $p = 0.298$ . The Bayesian information criterion (BIC) also indicated the preferred model was the six-class DFactor model (BIC = 6630.79). The factor loadings and communalities were evaluated, and the factors were ordered according to R-squared, indicating how well the model predicts the DFactor score. R-squared for the six DFactors ranged from 0.77 to 0.91, indicating the amount of variance explained in the items of each DFactor.

**Conclusions:** LCFA was used to confirm the item groupings of the 52 DMLI application items. Each of the six DFactors correlated with the six E's of DML; each of the 52 DMLI application items loaded onto one of the six DFactors. Findings from the LCFA demonstrated that the 52 DMLI application items did yield a model of good fit, indicating that the DMLI is a valid measure of the application of DML. This work is significant to the nursing profession by contributing a tested valid instrument for use in assessing the application of a debriefing method. Assessment of how evidence-based debriefing methods are translated into teaching practice is needed to advance the science of debriefing practice.

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## C 07 - Psychometric Testing

### Nursing Students' Caring Behavior Scale: Development and Psychometric Evaluation

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#### Abstract

**Background:** Caring is the core and the essence of nursing (Nelson & Watson, 2012). Over the past decades, caring has gained increasing attention as one of the major criteria of professional nursing and has been related to patient outcomes and patient satisfaction (ANA, 2015; Dieppe, Roe, & Warber, 2015). Caring is so much a part of nursing that if nurses don't care, they have lost the heart of what it means to be nurses (Holopainen, Nyström, & Kasén, 2017). However, caring receives little to no attention in nursing education compared to the current emphasis on the acquisition of technical skills (Walker, Quinn, & Corder, 2016). Although instruments that evaluate the cognitive and psychomotor aspects of nursing students' performance have been well developed, there is no caring behaviors' measuring instrument available that is designed from an educational perspective (Nelson & Watson, 2012; Porr & Egan, 2013). This indirectly lead nursing students to pay little attention to caring since it is not part of their performance evaluation.

It is essential that caring behaviors be evaluated during students' clinical training. Without such educational focus, nurses may remain unaware that caring behaviors, like any other skill, need to be developed, practiced and perfected (Labrague, 2012; Loke, Lee, Mohd Noor, 2015). Therefore, a valid and reliable instrument for measuring caring behaviors is needed to help cultivate and motivate nursing students' caring behaviors.

**Objectives:** This study aimed at the development and the psychometric evaluation of an instrument to measure nursing students' caring behaviors.

**Methods:** The study consisted of two phases and five steps. The first phase concerned with the development of content domains and items, while the second phase focused on the initial psychometric evaluation and data analysis of the Nursing Students' Caring Behaviors Scale (NSCBS). In Phase I, content domains were defined based on a qualitative study conducted by the researcher to examine the meaning of caring for the seriously ill patients. Scale items were generated, the instrument content validity was evaluated, and the instrument was pretested. In Phase II: The instrument was used to measure the caring behaviors of 112 nursing students. The derived data was analyzed to determine the construct validity and internal consistency reliability of the scale.

**Results:** The study findings supported the scale's content validity, construct validity and internal consistency reliability with a Content Validity Index (CVI) of 0.97 and a Cronbach's alpha of 0.93. The resulting scale consists of 28 items in three subscales. Subscale I: Having a relationship as a human being/Presencing, subscale II: Preserving patient's dignity & subscale III: Comforting.

**Conclusion:** The Nursing Students Caring Behavior Scale (NSCBS) is a reliable and valid instrument to measure nursing students' caring behaviors. Further research is needed to accumulate evidence for the validity and reliability of the scale.

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## C 08 - Disaster Simulation in Nursing Education

### Exploring Evidence for the Use of Immersive Virtual Reality Simulation With Undergraduate Nursing Students

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#### Abstract

**Background:** The purpose of the study was to assess learning outcomes of participants trained with two types of Virtual Reality Simulation (VRS) in the disaster skill of decontamination. The study was framed by the NLN/Jeffries Simulation Theory. Based on the theory, participant outcomes were measured that included the participants experience/satisfaction, cognitive knowledge, and performance. In addition, participant characteristics were evaluated for correlation to outcomes. Two types of VRS with varying levels of immersive capability were evaluated: head-mounted display and mouse and keyboard. Outcomes of VRS were compared to traditional teaching methods (written instructions).

**Procedures:** This mixed method study used a quasi-experimental design with repeated measures; the study was qualitatively informed by focus groups. **Subjects:** Following IRB approval from all participating institutions, subjects were recruited from a convenience sample of senior baccalaureate degree nursing students from four different campuses in the Midwest over two academic years. Participants were primarily Caucasian (89%), 18-25 years of age (73%), and female (88%). Most had no disaster training or experience, although many students virtual reality or gaming experience. Subjects were consented and then randomly assigned to one of three groups. Pretreatment each group completed a written cognitive exam and demographic questionnaire followed by a web-based module on decontamination training. **Treatment:** Following web-training, the control group received traditional written instructions ("Just in Time Training") for decontamination (Group C). The intervention groups completed a virtual reality simulation training using either an immersive head-mounted display (Group A) or a less immersive computerized mouse and keyboard version/less immersive option (Group B). **Post treatment Assessments:** Cognitive knowledge and performance outcomes were measured immediately post training and 5-6 months following intervention. Performance was measured based on time to complete task and score using a 17-item checklist developed by the researchers based on the literature. Pilot testing of the checklist indicated a Content Validity Index for the overall instrument score of 0.94, Internal consistency coefficient (KR-20) of 0.607, and Inter-rater reliability (Intra-class correlation) of 0.9114. Higher scores based on the checklist indicated higher levels of performance; shorter times indicated a faster performance. Cognitive knowledge was measured using a 20 question multiple choice test based upon a Federal Emergency Management Association (FEMA) exam. A pilot study indicated acceptable values of reliability and validity. Satisfaction and student experiences were examined via focus group interviews with groups of students across all four campuses after the initial VRS training. Focus group questions were based on literature related to VRS and the researchers' experience using VRS. **Analysis:** Demographic characteristics were analyzed and descriptive statistics were used to characterize the sample. A two sample t test was used to check the differences between any two treatments (A vs B, A vs C or B vs C). The detected differences between any two treatments was further used to estimate the required sample size to satisfy 80% power and 0.05 type I error rate in the power analysis. An ANOVA was used to analyze whether there were any differences among 3 treatments (A, B, and C). Finally, the generalized linear model was applied to analyze the impacts of 8 covariates (gender, race, age, ethnicity, actual disaster experience, participation in a previous disaster exercise, virtual reality, and gaming) on 3 outcomes (cognitive test, performance scores and time seconds).

**Results:** For the post-test and overall results, there were significant differences in performance scores between B (keyboard and mouse) and C (control group;  $p=0.0004$ ,  $p=0.0135$ ). The results indicate that treatment group B performs better than C. For time of decontamination in seconds at six months post, there was a significant difference between groups A (head-mounted display) and B (keyboard and mouse;  $p=0.0471$ ). In the overall comparison of time using both the post and 6 month post results, B (keyboard and mouse) group was faster in completing decontamination when compared to C (control group;  $p=0.0486$ ). For the cognitive test, there were no differences among three treatments and time points.

When exploring the effects of participant characteristics on outcomes, it was found that older participants spent significantly longer time performing decontamination, compared to younger participants ( $t=2.48$ ,  $p=0.014$ ). In addition, female participants were significantly faster than males in the decontamination performance ( $t=-2.99$ ,  $p=.003$ ).

Qualitative analysis of focus group interviews indicated that students were satisfied with both types of VRS, but found the immersive version was significantly more interactive and encouraged muscle memory by providing movement during the simulation. Three themes that emerged were simulation learning experience, simulation design, and participant outcomes. There was a preference for the simulation over traditional learning methods.

**Limitations:** This study was limited by use of a convenience sample of students. While 4 different sites were used, they were all from the midwest and showed similar demographic characteristics that may not be representative of students across all settings. In addition, only one skill was evaluated in this study--that of the disaster skill of decontamination. Evaluation of performance was conducted in a laboratory setting and not in an actual disaster.

**Conclusions/Implications:** This study identified that the use of a less immersive VRS lead to similar outcomes and student satisfaction as a more complex and immersive VRS for the skill of decontamination. The outcomes were equivalent to traditional methods with high levels of satisfaction. Given the need to develop knowledge, skills, and attitudes for safe practice in new nurses, nurse educators must understand how to select among the numerous technological approaches for facilitating learning and which approaches best support learning outcomes. This is particularly important for a skill, like decontamination of a contaminated patient, that must be done both accurately and quickly to promote safety of both the patient and the nurse. With the cost of VRS becoming affordable and the opportunities for students to access this technology increasing, nurse educators must understand how to incorporate VRS based on best practice standards and simulation theory.

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## C 08 - Disaster Simulation in Nursing Education

### A Web-Enhanced Simulation for Pandemic Disasters

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#### Abstract

**Background/Purpose:** The terrorist attacks on 9/11 marked a shift in U.S. policy on disaster preparedness and response. The Office of Homeland Security was formed 11 days after the attacks. Homeland Security Presidential Directives (HSPD) were issued by then-President George W. Bush. HSPD-21: Public Health and Emergency Preparedness required the development of public health/medical preparedness plans and policies. As part of HSPD-21, the IOM was tasked with developing crisis standards of care; these were published in 2009. Nursing groups followed with white papers and position statements. Nursing organizations in the United States such as the American Association of Colleges of Nursing (AACN) and the National League for Nursing (NLN) advocate some form of disaster nursing education across all levels of nursing (AACN, 2006, 2008, 20011; NLN, 2013). The International Council of Nurses (ICN) developed a list of core competencies for disasters in 2009; the National Student Nurses' Association in the United States (2012) promoted the training and use of student nurses during disasters. Nurses lack confidence and adequate education to participate in disaster activities (Hanes, 2016; Locke & Fung, 2014). Training exercises enhance learning; however, full scale exercises are costly and often not feasible. Tabletop exercises are accepted, effective modes of learning frequently used in disaster education. As part a "stand-alone" disaster nursing course, I developed a web-enhanced pandemic simulation, reflecting one of the 15 National Response Framework Planning Scenarios. The purpose of this presentation it to discuss the development and conduction of that simulation in the context of social learning and nurse disaster preparedness.

**Conceptual Frameworks:** Pender's health promotion model; theories of social learning, Bloom's learning domains and composite cognition.

**Methods:** Various scenarios were reviewed for relevance to student nurses and for feasibility; the decision was made to use a web-enhanced tabletop exercise. Pandemic disaster was chosen because of its importance, applicability to nursing, and ease of presenting in this format. The scenario was developed using progressive simulated news reports, graphics, and unfolding cases. Students were "situated" in their own communities and were acting as nurses in their own neighborhoods to give them a more authentic, personal experience. Students were placed in groups of four at individual computers to progress at their own rates through the simulation and engage in group process; each student/group contributed to the exercise through submitting injects during the unfolding cases. Up to five faculty members or outside assistants were present as expert observers and in case students felt uncomfortable with the program. Students were asked to make decisions on preparation, quarantine, when and how to assist others, and disaster triage, including whether a key member of the "team" should die. Some scenarios were difficult and intense. A "hotwash" debriefing was conducted for both students and faculty at the end of the simulation. To date, approximately 150 pre-and post-licensure nursing students have participated in the pandemic disaster simulation as part of the larger disaster nursing course.

**Results:** At the debriefing, more than 93% of students felt that they were better prepared for a pandemic and for disasters in general. Students in different groups had different reactions to the scenarios ranging from "I could never let someone die" to "we don't have the means to save that person". Students were surprised at the level of social destruction in a pandemic. All said they were thinking about their own personal preparedness and how they would respond differently after being in the class and going through the scenario. Modifications were made to the simulation based on feedback.

**Conclusions/Implications:** During times of disaster, nurses are a critical component of our national response plan. National and international nursing organizations support disaster education in nursing. Pandemics are terrifying disasters that will tax the healthcare system and require extensive planning, preparation, and training/exercises. The use of low cost simulations that are portable and require minimal equipment are an effective way to bring this important training to large numbers of student nurses leading to a better prepared workforce. Faculty need more training in the use of exercises for disaster education; additional practice opportunities with community agencies need to be explored.

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## C 09 - Teaching and Educational Progression

### Nursing Education Progression: A Snapshot of National Progress and Promising Practices

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#### Abstract

**Background:** The need for a more highly educated nursing workforce has been widely recognized (Benner, Sutphen, Leonard & Day, 2010; National Academies of Sciences, Engineering and Medicine, 2011). Since the seminal work of Dr. Linda Aiken and colleagues nearly 15 years ago, researchers continue to strengthen the link between patient outcomes and nursing education (Aiken, Clarke, Cheung, Sloane & Silber, 2003; Friese, Lake, Aiken, Silber & Sochalski, 2008; Blegen, Goode, Park, Vaughn & Spetz, 2013; Yakusheva, Lindrooth, & Weiss, 2014).

The need for Registered Nurses is expected to grow, and capacity of existing pre-licensure Baccalaureate of Science in Nursing (BSN) programs remains insufficient to meet the need for BSN - prepared nurses (American Association of Colleges of Nursing, 2017). Although recent trends demonstrate an upswing in nurses beginning practice with a BSN, nearly half of new nurses enter the profession through community college Associate's Degree programs (Buerhaus, Auerback, & Staiger, 2016). Supporting and expanding traditional BSN programs remains an important mechanism to improve nursing educational levels, however the size of the nursing workforce and existing program capacity necessitate inclusion of other approaches.

**Purpose:** The proposed presentation offers an overview of existing and developing academic progression programs in nursing. We provide an overview of the underlying impetus for education transformation and identify key national leaders in the work. A primary objective is to identify commonalities among successful programs as promising practices for others.

**Methods:** Recognizing the need to provide additional pathways to the BSN and to improve inefficiencies in nursing education, the Robert Wood Johnson Foundation (RWJF) provided funding to explore and implement improvements via grants administered through the Academic Progression in Nursing (APIN) program and the State Implementation Program (SIP) (RWJF, 2012; RWJF, 2013). With support from the APIN and SIP National Program Offices, an ongoing collaboration of nursing education leaders, nursing employers, researchers and other stakeholders resulted in a deeper understanding of models for nursing academic progression. The group recognized early the critical role of employers and nursing practice partners and this was reinforced throughout the project. The Organization for Associate Degree Nursing provided early and ongoing support and was instrumental in advancing the work.

As work continued, members of the collaborative identified and addressed common concerns. They recognized the need to standardize program pre-requisites and co-requisites, although there was widespread objection to uniform curricula. Many education program leaders expressed concerns about the impact of innovative education models on accreditation. Rural partners had unique issues related to geographic isolation and limited resources. Each of these concerns was addressed through gatherings of key leaders and strategies for advancement. Throughout every aspect of the project, leaders identified the need for improved data collection and synthesis. Impact of the innovative models on student diversity was particularly difficult to assess. National experts on nursing workforce data and diversity provided critical consultation and guidance. The APIN leaders identified other education projects across the nation and included representatives from each in the growing collaborative. The APIN National Program Office summarized the iterative learning which resulted in their final report (Farmer, 2017).

**Results:** Of the programs studied, the model with the greatest likelihood of significantly impacting the proportion of nurses with a BSN or higher is intentional and structured partnerships between community college and university schools of nursing, which provide seamless or integrated pathways to the BSN. Partnership models embody many elements with the shared or common curriculum model described by the Center to Champion Nursing in America (CCNA) (Campaign for Action, 2013). CCNA and APIN leaders found that successful partnerships require consideration of many elements aside from nursing curriculum, and cataloging these elements allowed development of a continuum framework to describe programs.

Many schools of nursing indicate partnership are in place, but the absence of standardized definitions has led to complexities in sharing information and evaluating outcomes. In many cases, partnerships consist primarily of articulation agreements. These agreements are a useful starting point in strengthening academic progression and in many cases have eased student advancement, but they have not historically had the desired impact. Key features of successful programs included strengthening of relationships, effective leadership, plans for scaling and sustainability, and infrastructure such as messaging, academic advising, and student financial aid (Gerardi, 2015).

Leaders of this project found models in which students are co-enrolled in the community college and university to be the most successful to date, although many models have not been in place for a sufficient period to allow comprehensive assessment (Farmer, 2017). In most cases, co-enrollment models have been capacity-controlled and cannot fairly be compared to state articulation or transfer models, which incorporate all AD students into improved opportunities for progression.

**Conclusion:** Continued assessment and improved data collection are needed to evaluate the range of options available and identify the most effective and efficient methods of education progression in nursing. A number of approaches will likely be required to meet the needs of individual states and regions, but variations on partnership between community colleges and universities are showing the greatest promise. Highlighting promising practices may accelerate advancement nationally on this important initiative.

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## C 09 - Teaching and Educational Progression

### Experimental and Quasi-Experimental Studies on Teaching and Learning Methods 1987 to 2015

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#### Abstract

The National League for Nursing research priorities focus on the need to build the state of science in nursing education through research (2016). Previous reviews have focused on specific teaching strategies like concept mapping (Daley, Morgan & Black, 2016), e-learning (Koch, 2014), and simulation (Jumah & Ruland, 2015). Although Dunbar-Jacob's presentation (2016) on the science of nursing education at the NLN research conference included a brief review of the studies in nursing education, no published reviews of the experimental and quasi-experimental studies of teaching and learning methods in nursing education could be found. The purpose of this study was to enumerate the types of experimental nursing education research that has been done on teaching and learning methods and to characterize the findings and the methodological challenges in this body of research.

The Cumulative Index of Nursing and Allied Health Literature (CINAHL) was searched using the search terms "education, nursing," "learning methods" or "teaching methods" and "experimental studies" or quasi-experimental studies." The search was limited to peer reviewed research articles in the nursing journal subset. This search produced a total of 145 studies. Initial review, which eliminated duplicates and articles not meeting criteria (i.e., being published in English; and not solely published in *Dissertation Abstracts*), reduced the number of studies to 114. Each article was reviewed by one investigator and coded on 14 variables. Inter-coder reliability was computed on 17% of the studies. It was not possible to do a meta-analysis on this group of studies because of the wide variety of methods studied. Therefore, a structured literature review is presented.

Sixty percent of the studies were published in journals devoted to nursing education, including journals on simulation and staff development. Publication date of the studies ranged from 1987 to 2015 with 19% of the studies published before the year 2000, 30% published between 2000 and 2009 and 51% since 2010. Just over half (54%) of the studies appeared to be conducted the United States.

Coding of the major dependent variables in the studies revealed that 56% of the studies were concerned with learning outcomes only, 20% did not report learning outcomes, but reported other outcomes such as attitudes and self-efficacy, and 24% reported both types of outcomes. Teaching and learning methods studied included simulation (19 studies), online strategies (17 studies), cooperative methods (10 studies), and problem-based learning (4 studies). However, 56% of the methods in the studies could not be grouped with any other method. The content taught appeared to be mostly general nursing knowledge and skills, but 15 (13%) of the studies concerned pharmacology or medication calculation. Seventy-seven percent of the studies showed statistically significant group differences on at least one major outcome variable.

Methodological coding revealed that 73% (N = 83) of the sample were quasi-experimental studies, 19 of which included no comparison groups. Over 78% of those with no comparison groups were conducted since 2010. The sample sizes ranged from 14 to 900, with only 32% having more than 100 participants. Eighty-two percent of the studies had undergraduate participants, while 16% involved staff nurses and 2% concerned graduate students.

The findings of this review were similar to those presented by Dunbar-Jacob (2016) with respect to the focus on undergraduate students, the paucity of randomized designs, the problems with small sample sizes, and the types of strategies tested. However, this presentation covers a longer time span, indexes the countries where the research took place, discusses the content taught as well as the strategies used, reports the outcomes studied, and the proportion with significant findings, and shows the trajectory of the research over time. Overall, review revealed a considerable increase in the number of published studies of teaching and learning methods in the recent years, with nearly half of the studies conducted outside of the United States. The majority of the studies included learning outcomes. Methodological rigor of the studies is a concern with 68% having fewer than 100 study participants, the majority employing quasi-experimental designs and recent studies having no comparison groups. The studies reviewed here often appeared to be single forays into research and pilot studies with little evidence that investigators continued to pursue a program of research.

It is well known that there is little funding for research in higher education, requiring most research endeavors to be small scale and preventing investigators from making research a major portion of their professional lives. Furthermore, Broome, Ironside, and McNelis (2012) conducted a study of faculty at 21 schools, which showed that lack of funding and heavy workloads were barriers for conducting nursing education research. With the publication of relatively more studies in recent years, it may be that nursing education research is finding a more prominent place in academic nursing. Future research should focus on replication at different sites, with different instructors. Moreover, methods of collaborating that allow multi-site studies to build nursing research around evidence based teaching and learning strategies should be explored.

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## C 10 - Women's Health

### Female Genital Cutting (FGC) Digital E-Book: American Nursing Care Context

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#### Abstract

**Background:** FGC affects at least 200 million women worldwide. Due to increasing transmigration, care of women with FGC has become a national and global public health and human rights issue. The United States (US) is one of the Western countries that has a large number of women who underwent or are at risk to undergo FGC. Based on the US Population Reference Bureau (PRB) report in Feb 2013, there were more than 507,000 females with different migration statuses that were subjected to some form of FGC. Around 55% of these women were between 15 to 49 years old. Accordingly, it is important to consider this group of women as a vulnerable population in our healthcare system as it is usually associated with the existence of health disparities. Immigrant women, and more specifically pregnant, who underwent FGC are more at risk for health disparities when compared to their non-immigrant counterparts.

**Statement of the Problem:** Caring for immigrant women with FGC, especially those who are pregnant, is a key challenge in the American healthcare context. The challenge occurs as a result of a lack of standardized clinical guideline that sustains the cultural and clinical aspects for immigrant women with FGC. This void marginalizes this vulnerable group of women from accessing and utilizing the current healthcare and more specifically perinatal services. Thus, the increased risk of poorer health status among these women impacts negatively on their quality of life. This affects the image of the US healthcare in general and the perinatal health services in particular.

**Justifications of the Current Challenge:** A review of the literature indicated that the following issues challenge care of immigrant women who have undergone FGC.

- *Cultural Gap.* Lack of understanding the cultural and social aspects behind FGC performance creates a cultural distance between the healthcare providers and immigrant women.
- *Clinical Gap.* There is a clinical gap regarding how to manage the complications that occur as a result of FGC. The current clinical management is focusing on preventing and managing the complications that occur in the severest type of FGC (Type III) or infibulation.
- *Lack of Trust.* Women and their partner's concern about the increasing the performance rate of C-sections among women with FGC, particularly among women who have Type III, in U.S.
- *Lack of effective-Therapeutic communication.* Misunderstanding the different cultural and ethnic backgrounds may block effective therapeutic communication between American healthcare providers and immigrant women and their partners. Such lack of an effective communication generates ethnocentrism, discrimination, stereotyping, cultural blindness, and cultural imposition.

**Scope & Purpose:** International studies highlight the need for an educational tool that raises the healthcare providers' awareness about various aspects that concern FGC. The purpose of this presentation is to test the efficacy of the FGC digital e-book as a learning and educational tool to improve the level of knowledge, attitude, and self-efficacy among undergraduate nursing students when caring for women who have undergone FGC.

**Significance of this Topic in Nursing Profession:** A growing body of evidence from different western countries such as Norway, Sweden, USA, UK, and Spain, indicates the existence of significant gaps in training providers, as well as gaps in general knowledge about caring for women who underwent FGC, despite the availability of existing care protocols in most of these countries. Therefore, there is a need to examine the impact of the FGC-digital eBook on nurses who provide perinatal care within American system. Targeting nurses in general and nursing students in specific is ideal to exemplify the foundation of holistic care in FGC and perinatal healthcare context. These individuals are ideal primary care providers because the 'cornerstones' of their practice model include continuity of care partnership with birthing families, and informed parental choice.

**Methods & Evaluation:** A pre-post test quasi-experimental design was conducted with a convenience sample of undergraduate nursing students at Binghamton University. The FGC knowledge scale has 14 close-ended questions with a total score ranges from 14 to 42; 14 indicate the lowest score and 42 indicate the highest. The attitude scale is 5 points Likert scale that measures the participant's attitudes regarding 13 statements of different aspects of FGC. The FGC self-efficacy scale has 14 close-ended questions; the total scale score ranges from 14 to 42; while 14 indicate the lowest score, and 42 indicate the highest.

**Findings:** The preliminary data indicated that the FGC digital e-Book has a positive impact on the level of FGC knowledge, attitude, and self-efficacy among undergraduate nursing students.

**Discussion:** FGC is a complex socio-cultural phenomenon that has various health and clinical controversies, which interfere with the concept of holistic care in the nursing profession. Therefore, assessing and exploring the level of knowledge, attitude, and self-efficacy provided deeper insights about the clinical and cultural aspects of FGC that focus on the holistic care. Further, optimal health care must be based on effective communication, cultural sensitivity, and trusting relationship to create a delicate balance that puts the women's best interest in the forefront. The FGC Digital eBook is an electronic learning tool that covered the clinical, cultural, social, and ethical aspects of FGC. It can easily accessed by any personal laptop, smartphone, iPad, or tablet. This eBook emphasized the self-reflective learning strategy, which enhanced the student's effective learning-engagement, where the participants set, achieved, and monitored their progress through the course.

The eBook covered all clinical controversies that concern FGC in a professional and engaging way. Indeed, it represented the social aspects at different historical periods and within different cultural contexts. Such information assisted the undergraduate nursing students in increasing their level of knowledge, considering the appropriate attitudes and the self-efficacy skills that are needed to provide a competent clinical and socio-cultural care for this group of women.

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## C 11 - Collaborations in Nursing Education

### Collaborative Innovations of a STTI Chapter Advances Nursing Excellence Across the Globe

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#### Abstract

**Purpose:** The purpose of this project was to support an Experienced Nurse Faculty Leadership Academy (ENFLA) scholar in her leadership project to advance nursing education and practice by creating a global exchange between Global Health Services Network (GHSN), American Nursing Institute Myanmar (ANIM) and Eastern Michigan University (EMU) School of Nursing (SON). **Steps taken:** ENFLA Scholar presented to the STTI Eta Rho Chapter board her leadership project identifying the desire to use the Eta Rho Chapter as a means to heighten awareness of EMU SON as a global academic partner with ANIM. Board members agreed the project was in alignment with the mission and vision of STTI and could offer stability and visibility of a chapter that was fixed in the status quo. A local team, composed of STTI members, faculty, students, and key stakeholders, who had a vested interest in this project was created. STTI members were instrumental in fundraising efforts for a broader vision of project growth. The ENFLA Scholar traveled to Mandalay, Myanmar, to make face to face connections with stakeholders in ANIM and build relationships, exemplifying that all have a key role in the co-development and sharing of practice and education, STTI members continued their efforts at home. Steps involving key stakeholders are being taken to deepen the relationship between ANIM, GHSN, and EMU by bringing faculty from ANIM to EMU. Additionally, an effort is being made to coordinate calendars to provide ANIM faculty the opportunity to participate in STTI 44<sup>th</sup> Biennial Convention. Funds raised by STTI Eta Rho Chapter will support these initiatives. **Outcomes:** STTI Eta Rho Chapter was revitalized and given a sense of renewal and purpose through their involvement and active participation. Personal and professional empowerment was achieved through the induction of three ANIM faculty into STTI Eta Rho Chapter. A sense of trust and co-development was established between GHSN, ANIM, and EMU. A face from EMU SON was provided to GHSN, ANIM and three private hospitals in Mandalay, Myanmar. All stakeholders have expressed a vested interest in this global mission. EMU SON has initiated a global partnership with ANIM. Research exploring the mentoring relationships of the students enrolled in ANIM has begun. **Future directions:** Discussion and planning continue within the STTI Eta Rho Chapter to develop future projects involving EMU SON faculty and students with ANIM faculty and students to sustain this project. EMU nursing faculty, who are on the STTI Eta Rho board, have expressed an interest in teaching at ANIM. STTI members have expressed an interest in helping ANIM to develop a peer mentoring program based on research findings. Three private hospitals, affiliated with ANIM, are willing to host EMU nursing students for clinical and leadership experiences through the development of future study abroad programs. EMU SON, in collaboration with GHSN, has the potential to connect with other nursing programs around the globe, increasing opportunities for faculty and students to advance nursing excellence in education and practice.

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## C 11 - Collaborations in Nursing Education

### Raising the Bars: Re-Imagining Nursing Education Through Partnerships With Prisons

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#### Abstract

The system of health care in the United States is in crisis as it attempts to find more efficient and effective ways to improve the delivery of health care while ensuring quality and safety for those receiving that care. Consumerism is changing how health care is being defined and delivered, resulting in dramatic changes in health care and health care policy including a shift from acute care, focused on disease and treatment delivered in hospital-centric environments, to primary and community-based care, focused on coordinating care and managing transitions across providers and settings of care (Bouchaud, Swan, Gerolamo, et al, 2016; Fortier, Fountain, Vargas et al., 2015). To adequately address the current failings of the United States' health care system, including fiscal constraints, disparity related to access to health care, and quality of care issues, a strategical shift in nursing education and practice must occur, from individual to population-focused care (Bouchaud, 2011; Bouchaud & Gurenlian, 2013; Fisher Robertson, 2004). A culture change among nurse educators and administrators and in nursing education is needed to prepare a competent interprofessional health care workforce capable of practicing from a health promotion, disease prevention, community and population focused construct in caring for a population of patients who are presenting health problems and conditions that persist across decades and/or lifetimes. As a result, RNs, now and in the future, will need to be prepared with a broader scope of knowledge, skills, and competencies (Fortier, Fountain, Vargas et al., 2015; Fraher, Spetz, & Naylor, 2015) which translates into new, emerging, and unprecedented opportunities for nurses across the care continuum (Bouchaud, Swan, Gerolamo, et al, 2016; Bouchaud & Swan, 2016). Yet many baccalaureate nursing programs continue to prepare new RN's as generalists who function best in hospital-centric environments, despite and in light of the prediction by Houle and Fleece (2011) that one-third of all hospitals will be closed by 2020. A need for re-envisioning nursing education and practice, improving patient care and outcomes, and promoting patient health and wellness from a community and population focused perspective is prompting the need for nurse educators and administrators to re-define and prepare a new nursing workforce for the 21<sup>st</sup> century (Bouchaud, 2011; Bouchaud, Brown, & Swan, 2017 Bouchaud & Gurenlian, 2013).

While healthcare delivery is moving from hospital to ambulatory and community settings, community-based educational opportunities for nursing students are shrinking due to increased regulatory requirements, the presence of competing numbers of nursing schools, increasing student enrollment, and decreasing availability of community resources capable and willing to precept students in all-day interactive learning environments (Bouchaud & Swan, 2016). Prisons, as microcosms of society, provide an ideal learning experience for not only technical nursing skills, but more importantly, for reinforcing key learning goals and the new 21<sup>st</sup> century skills set in community and population-based care, cultural awareness and sensitivity, and interprofessional efforts aimed at engaging patients in the management of chronic conditions (Bouchaud & Gurenlian, 2014; Bouchaud & Swan, 2017). A prison clinical rotation offers a new avenue through which to prepare population-focused nurses who can function in a rapidly changing health care landscape. One urban college of nursing has been placing BSN students in maximum security prisons at the state and federal level as well as juvenile detention centers for the past 11 years. Student interest in prison as a clinical site has become a sought after immersion experience resulting in waiting lists starting on orientation day. More recently, the prison program has expanded to include students in the graduate FNP program. Though evidence has demonstrated that prison and correctional health is an innovative and viable resource to educate senior prelicensure baccalaureate nursing students in the new model of healthcare delivery and practice (Bouchaud & Swan, 2016), there is a need in the literature to know what students think of this clinical experience.

This presentation will describe how one urban college of nursing has and continues to use correctional prison facilities as an innovative clinical setting to educate BSN students about community/public health nursing, correctional health nursing, population health and the new health care model of practice. It will describe how the use of private, state, and federally run prisons can serve to implement a redesigned baccalaureate nursing curriculum and ignite student interest in working with and in the community, outside the hospital setting. This presentation will discuss how educating nursing students in an all-male maximum prison setting can reinforce key learning goals and the new soft and hard skills set needed for nursing practice in the 21<sup>st</sup> century that includes community-based care skills, population-based care awareness, cultural sensitivity and awareness, empathy, therapeutic communication, the impact of social determinants on health, and strategies to implement health care and nursing practice through a health promotion and disease prevention model especially for stigmatized and marginalized populations. The authors will accomplish these aims by sharing a qualitative and quantitative analysis of eleven years of collected student feedback regarding their perceptions and experiences of a community clinical rotation in a maximum security prison setting. Finally, the presentation will conclude with additional knowledge gained from this 11 year study including one finding that not only did nursing students request to complete their community clinical rotation in an all-male maximum-security prison despite its accompanying restrictive regulations, especially as it relates to their access to personal technology devices, had to travel the farthest, start their clinical day the earliest, and complete more clinical hours in the day than their classmates in other clinical sites, but there was an unknown desire for a unique clinical experience that was only satisfied by this prison rotation.

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## D 01 - Clinical Competency Evaluation

### Description and Meaning of Clinical Competency: Perceptions of Nurse Managers and Baccalaureate Nurse Faculty

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#### Abstract

**Purpose:** Clinical competency is a significant concept for nursing as it relates directly to the quality of patient care that nurses provide in the healthcare setting. Despite the vital nature of this concept, there is no widely accepted understanding of the term between the academic and clinical groups in nursing, in the literature. Consequently, there is a continuous struggle to set standards to measure clinical competency in undergraduate nursing students. This imprecise understanding of clinical competency widens the gap between education and practice. When acute care nurse managers and prelicensure baccalaureate nursing faculty share expectations of what constitutes clinical competency in nursing students, that gap may be bridged.

The focus of this interpretive description study was to describe and gain an understanding of the concept of clinical competency from the perspective of acute care nurse managers and baccalaureate nurse faculty.

**Methods:** A purposive sample was recruited through the snowballing method. Participants included eight acute care nurse managers and nine prelicensure baccalaureate nurse faculty from Southeastern Pennsylvania. Data were collected through semi-structured interviews with the participants, and analyzed through a constant comparative analysis until the data reached saturation.

**Results:** Four themes emerged from the data of this interpretive description study when acute care managers and baccalaureate nurse faculty described the meaning of clinical competency and what expectations managers have of the new graduate nurse in regards to clinical competency. The themes are *applying metacognitive judgment*, *getting the big picture*, *providing safe care*, and *developing professional nursing behaviors*. Transitions Theory is presented as a theoretical framework supporting the findings of this study, as student nurses transitioning to the role of the new graduate nurse in the acute care setting. The application of the four themes described in this study to the Transitions Theory assists in further understanding the meaning of clinical competency in nursing.

**Conclusion:** Implications of this study from the perspective of nursing science and research offered for the first time a shared view of the concept of clinical competency from the perception of the managers in practice and the faculty educating undergraduate nursing students in the clinical area. Implications for nursing education included providing faculty a means to structure the clinical experience so that students may be better prepared to practice in the acute care setting as a new graduate nurse. In nursing practice, the benefits for the managers are an understanding of the level of clinical competency and preparation of the new graduate nurse, which enables them to further support their transition to clinical practice. Future research may include a tool for the objective measurement of clinical competency.

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## D 01 - Clinical Competency Evaluation

### Clinical Evaluation of Competence: What Are We Measuring?

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#### Abstract

Competence is a commonly used concept in nursing education, yet there is no widely accepted definition, consensus on the essential components, or standardized instrument to measure it in the clinical setting. Concept analyses describe attributes of competence using cognitive terms such as critical thinking and professional role modeling (Valloze, 2009), and psychomotor terms such as performance (Garside & Nhemachena, 2013). Several leading nursing organizations in the U.S. (e.g., NLN, AACN) have developed models of essential behaviors and competencies considered important in preparing a competent nurse. In the U.S. and Canada, minimal competence for nursing practice is measured by the NCLEX-RN, which is written by the National Council of State Boards of Nursing and based on actual nursing practice expectations. Nursing education programs are charged with evaluating competence in their students, both in the evaluation of specific skills, and in the evaluation of general competence at the end of the program. However, there is little consistency in how competence is measured in nursing education and no standardized instruments. This presentation will report on findings from a larger NLN-funded research synthesis on clinical evaluation in nursing education programs. Specifically, the studies focusing on clinical evaluation of competence will be examined. The research synthesis method described by Cooper (2010) was used to guide the study, and the nursing research literature was searched through March 2017. A total of 88 research studies on clinical evaluation of nursing students were analyzed and categorized into 10 categories. A total of 35 studies (40%) examined the topic of competence. Of these, the majority of studies (n = 22) had the aim of measuring general competence at the end of a course or entire nursing program. About one third of the studies evaluated a specific type of competence, including competence in a specific patient care environment such as perioperative care (Ajorpaz, Tafreshi, Mohtashami, Zayeri, & Rahemi, 2016), related to a specific clinical skill including vaccinations (Nikula, Puukka, & Leino-Kilpi, 2012) and medication calculations (Macdonald, Weeks, & Mosely, 2013), or a professional nursing skill such as critical thinking (Pitt, Powis, Levett-Jones, & Hunter, 2015) or cultural competence (Jeffreys & Dogan, 2013). Analyses of the studies revealed most used researcher-developed instruments, and many used student self-report measures. Analysis of research designs indicated most of the studies were categorized as low levels of evidence (Level 6 – single descriptive or qualitative study) according to Melnyk and Fineout-Overholt's (2011) Levels of Evidence criteria. The evaluation instruments included a variety of components to measure competence, including skill performance, knowledge, professional behaviors, personal characteristics such as curiosity or self-confidence, and affective domain components such as caring and honesty. An analysis of the differing components of competence measures across studies will be provided. Few of the measures were based on national standards of competence, and those that did all originated outside the U.S.

The current state of the science in the measurement of competence in clinical evaluation demonstrates that there is no consistent definition of competence, either globally or within nations. Based on the studies reviewed, there is little consensus on the essential components of competence, and there is a lack of reliable and valid instruments being used to measure competence. Many of the studies reviewed relied on student self-evaluation of competence. In addition, a variety of evaluators were used to measure clinical competence, including faculty and preceptors. Some of the studies that compared different evaluators' opinions of competence (e.g. students', instructors', preceptor's) showed disagreement among evaluators, even when using the same evaluation instrument.

To advance the science of nursing education, there needs to be reconciliation of the differing definitions and standards of competence provided by national organizations and experts in nursing practice. Instruments measuring competence must be based upon a unified definition, with additional items added to reflect the needs of specialty areas or skills. Implementation of a more standardized approach to the measurement of clinical competence will facilitate comparison of findings across programs, nationally and internationally. Other issues that must be resolved include who should measure student competence, and how consistency among evaluators can be ascertained. It is important that nursing education researchers begin to address these important issues related to the measurement and evaluation of clinical competence in order to foster the development of widely accepted, reliable, and valid measures of clinical competence that can be tested through multi-site research studies in a variety of programs to build the foundation of nursing education science. The development and testing of such instruments is essential to foster the educational development of clinically competent nurses nationally and internationally.

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## D 02 - Clinical Nursing Leadership Innovations

### Improving the Charge Nurse's Leadership Role: A Collaborative Learning Forum

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#### Abstract

Staff nurses are frequently placed in charge nurse positions without the necessary formal training (McCallin & Frankson, 2010; Schwarzkopf, Sherman, & Kiger, 2012; Wilmoth & Shapiro, 2014). An Institute of Medicine (IOM, 2010) report recommends that all nurses should become leaders in transforming health care: all should be trained in leadership skills, such as conflict management and delegation. To improve patient outcomes and staff satisfaction, health care organizations need to improve on how front-line leadership, charge nurses, and staff nurses are trained for leadership positions within the organization. The long-term goal of this project was to develop a curriculum for a formal institutional leadership workshop for the charge nurses at the practicum site. The Johns Hopkins Nursing Evidence-Based Practice model and Lewin's change theory were used to guide the development and implementation of the workshop. Data were collected using a focus group approach with 4 novice and 5 expert medical-surgical charge nurses. The short-term goal of the project was to understand the charge nurses' perceptions of leadership and the challenges as a front-line leader. Participating nurses were recruited from staff meetings and from a hospital flyer. Each participant answered the 3 leadership questions. The charge nurses' statements were categorized and color-coded to identify emerging themes from repetitions of words and patterns; themes were subsequently prioritized from the most to the least occurring. Member checking with participants as well as preceptor verification and validation of 10 themes that were utilized to develop the curriculum: communication, patient safety, roles, teamwork, conflict management, generational diversity, mentoring, cheerleader, prioritization, and delegation. Implementing the workshop 4 hours per month over a 3-month period and formal mentoring was recommended for optimal sustainability based on the proposed theoretical framework. Implications for positive social change include the potential for enhancing the quality of patient care delivered and improving patient safety as a result of charge nurse leadership being modeled.

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## D 02 - Clinical Nursing Leadership Innovations

### Lend Me a Hand: A Collaborative Nurse Leadership Mentoring Program

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#### Abstract

As aging nurse leaders retire, a gap is left for nurse leadership and a growing need to prepare an intergenerational workforce of nurse leaders who will fill the gap (AHA, 2014; Dyess, Sherman, Pratt, & Chiang-Hanisko, 2016). Shirey (2006) has projected a shortage of at least 67,000 nurse leaders by 2020. The rapidly changing current healthcare environment coupled with the projected shortage of nurse leaders, necessitates an enhanced level of technical and professional expertise as well as the leadership capacity to adapt and be successful (Center for Creative Leadership, 2016). As health care systems provide leadership in an evolving state of change, Ibitayo and Baxley (2013) note a different model for support and development may be needed to alleviate concerns facing newer nurse leaders (Ulrich et al., 2014). Dyess et al. (2016) noted the impact of challenges such as a rapidly evolving health care environment, increased impact of outcomes on reimbursement, and increased span of control on a healthy work environment. Ulrich et al.'s (2014) findings in a study of more than 8000 nurses that perceptions of healthy working environments were diminishing for frontline managers as well as CNOs, suggested support for leadership development may alleviate concerns facing newer nurse leaders. Nurse leaders of tomorrow must be equipped with the ability to transform knowledge into practice that will positively impact the culture of the healthcare environment and effect positive patient outcomes.

**Purpose:** The purpose of this presentation is to articulate gaps identified in leadership development by aspiring and current nurse leaders in Western New York (WNY) that will allow nurse leaders to chart a course to transition more fully into nurse leadership roles that transform care through participation in a Nurse Leader Development Program (NLDP). The presentation will describe a collaborative effort between academia and practice that is open to all WNY area nurse leaders and aspiring nurse leaders. Discussion will include the specific leadership gaps identified in nursing leadership skills and attitudes. A NLDP will be described that was designed to helping nurse leaders make the climb to successful leadership skills that enhance a healthy work environment and positive patient outcomes.

**Methods:** A qualitative study recruited nurse leaders (n = 14) and aspiring nurse leaders (n = 42) from the healthcare systems in WNY. After receiving IRB approval and informed consent, participants were placed into nine focus groups dependent on their current leadership status: established or aspiring nurse leader. Focus group participants were asked the same questions of their perceptions of the gaps in nursing leadership in WNY. Digital recordings of the focus group responses were then transcribed and analyzed for themes using content analysis and nVivo 10 software; consensus was achieved among the team of researchers. The identified gaps in leadership development were used to create an outline and objectives for the NLDP. The objectives for the NLDP were matched to the AONE Nurse Executive Competencies, giving structure to the NLDP.

**Results:** The data was analyzed both individually from the aspiring and current nurse leaders and then compared between the groups. When speaking of charting a path to leadership, the experienced nurse leaders identified a need to develop essential relationships along the way stating, "... start to develop relationships with multiple people that are going to be in life positions, and have come from different experiential base and they need to spend time with the critical point people that they're going to have to depend on, and develop a relationship with". Additionally, they expressed a need to better understand the role of a nurse leader with a rhetorical question of "What are their roles and responsibilities? I think that's another thing that is really important to make sure that everybody is aware and understands exactly what that is". They lamented that "we don't have a common language" that helps nurse leaders to communicate with the interprofessional team. Finally, the nurse leaders stated a need for mentoring of new nurse leaders: "we have a huge gap even from leadership to leadership roles, there's not very much mentorship between our senior leaders and you know we don't have the resources."

The aspiring nurse leader groups were frank in their admission that while they "would be interested in leadership", they were not sure how to chart the course to leadership, stating I am "not feeling the opportunity necessarily exists for you to step up that ladder because it is so well established as it is already." Navigating to the leadership role seemed to be nebulous and required "some sort of shadowing opportunity to really see because I don't really necessarily have a specific goal into leadership, I would like to really see different roles." Some aspiring leaders were not sure of the progression through leadership stating, "I think there is also a gap in steps. So like sometimes you will take a nurse off the floor and she will become a manager, and there are no steps going up, there is no career ladder that moves you into that role." The group further expressed that this sometimes sudden thrust into leadership was not supported by recognition of their leadership abilities, noting a need for assistance with reaching success in leadership: "they say good leaders should be grooming their succession plan, like you should be grooming the person who is going to take over your job. That's like what you should walk into a leadership role doing."

There was an identified need among all participants for a nurse leader self-assessment "to help a young leader understand...it didn't go well, you look upset, let's talk about that, what could you have done differently in that position, to make it more comfortable for you because in order to be successful you have to be comfortable in your own skin". Paramount to success as a nurse leader was "communication...I think they have to be able to connect with people. I've just seen too many people that they are so smart that they could not navigate the relationships...conflict resolution's something that every leader must be able to get over because if you can't there's no way you can be successful...or be a leader." Both the aspiring and current nurse leaders identified a need for leadership development that included "an effective mentor, somebody's who been through it, who can coach you, and suggest avenues to take to ensure your success.". The experienced nurse leaders had these words for the aspiring nurse leaders: "Don't expect to be perfect, because it's not going to be. You don't know everything, you will never know everything, and you don't have to know everything. You do have to know how to seek out the answer if you don't know something."

This presentation will review the identified leadership gaps as they were compared to the AONE (2015) Nurse Executive Competencies for the purpose of developing a NLDP that will mentor nurse leaders to potentially increase retention of nurse leaders as well as enhance outcomes and

leadership capacity. The AONE Nurse Executive Competencies represent the transformational leadership knowledge, skills and attitudes needed to excel as a nurse leader. Competencies identified as targets for leadership development included: Communication and relationship building, Knowledge of the healthcare environment, Leadership, Professionalism and Business Skills. The goals for the NLDP included: Compare differences in roles, expectations, and commitment of the nurse leader; Utilize findings from self-assessment to develop a plan for self-care; Apply acquired knowledge of business and finances involved in healthcare in the role of a nurse leader; Utilize communication and relationship management skills in the role of a nurse leader; Create a plan to achieve two measurable goals to strengthen leadership skills and professionalism; Design a 3-5 year plan for consistent professional development in the role of a nurse leader.

**Conclusion:** This presentation will present identified leadership gaps in WNY that were used to develop a NLDP. The identified leadership gaps represent the thoughts and experiences of aspiring and experienced nurse leaders. Both groups clearly described the need for a leadership development program that addressed a lack of understanding related to the leadership role and how to make the leadership climb. The developing NLDP will recruit and matches mentors (experienced nurse leaders) with protégés (aspiring nurse leaders) into a nine month multi-organizational leadership development program where mentors will facilitate the cultivation of transformational leadership knowledge that will advance and strengthen nursing leadership. The NLDP includes a logic model specifically focused on changes in knowledge, skills and attitudes to meet the identified gaps in leadership development. Future nurse leaders are charting their paths to leadership success; a formal leadership mentoring program will lend a hand to aspiring leaders as they navigate their leadership climb.

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## D 03 - Exam Scores

### Use of Crib Sheets and Exam Performance in an Undergraduate Nursing Course

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#### Abstract

**Background:** There is a growing body of evidence that the use of student-prepared testing aids (cheat sheets or crib notes) can have a positive impact on student outcomes such as test anxiety and exam performance. Some researchers have suggested that the actual preparation of a crib sheet can help students to organize course content, reduce the need for memorization, and focus on conceptual knowledge and learning. A review of the literature indicates faculty-approved crib sheets during exams are becoming more common in the disciplines of math, engineering, psychology, and other sciences. There are little to no published studies on the use of authorized crib sheets with nursing students.

**Purpose:** A repeated measures, correlational study was conducted to assess the outcomes of allowing baccalaureate nursing students to use authorized crib sheets during exams.

**Methods:** Senior nursing students ( $N=86$ ), enrolled in a community health nursing course, received a blank crib sheet (10 cm X 15 cm index card) one week before each exam. The students were allowed to write on the front and back of the index card and then use it during the exam. Use of the sheet was not required. The crib sheet was collected after each exam and the students completed a post-exam survey developed by the researchers. The survey included five scaled questions assessing the benefits of using the crib sheet across the domains of Exam Confidence, Exam Preparedness, Test Anxiety, Assistance during Exam, and Recommend for Future Exams. Other survey items collected data on amount of time spent creating the crib sheet and number of times crib sheet was used during exam. One open-ended question requested additional written feedback.

**Results:** Even though it was not required, of the 86 students, 82 students (95%) used the crib sheet for all 3 of the exams. A repeated measures ANOVA found significant changes on all variables. For example, mean time creating the crib sheet was much longer ( $p<.001$ ) for Exam 2 ( $M = 218.2$ ) and the Final Exam ( $M = 230.89$ ) compared to Exam 1 ( $M = 151.79$ ). The average number of times looking at the crib sheet during the exam was also greater ( $p<.001$ ) for Exam 2 and the Final Exam (6-10 times) than in Exam 1 (2-5 times). Spearman's rho correlations were used to examine the relationships between exam grades, confidence, preparation, anxiety, assistance during exam, and recommendation with time creating and looking at the sheet. Looking at the crib sheet during the exams was positively correlated to confidence, preparedness, decreased anxiety, assistance, and future recommendation. The amount of time creating the sheet was also positively correlated to these same outcomes except for assistance. The crib sheet usage was not correlated to exam grade overall. Themes from the qualitative data included "creating the card helped me learn/memorize," and the "card was a security blanket during exams."

**Conclusion:** Not only did almost all of the students use the crib sheets, but they overwhelmingly considered it to be a "great study tool." This was the first course that allowed the faculty-approved crib sheet and the students commented they wished other courses would allow this study aid. By the Final Exam, the students were spending more time creating the crib sheet and using it more during the exam. Increasing the amount of time to create the sheet and number of times looking at the sheet during the exam could decrease anxiety.

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## D 03 - Exam Scores

### A Retrospective View of the Effect of Double Testing on Nursing Student Examination Scores

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#### Abstract

**Introduction:** There are a variety of assessment methods available to nurse educators. The decision to use a particular strategy depends on the objective being assessed, the setting in which learning occurs, the level and number of students, and time constraints. This mixed methods study focused on the use of collaborative testing in a nursing Pharmacotherapeutics course at a Midwestern university. Collaborative testing is defined as an assessment method in which pairs or small groups of students work together to develop answers on course examinations (Oermann & Gaberson, 2017). This presentation will describe the use of double testing in which students take each examination twice, first alone and again following a 15-20 minute discussion with an assigned group. In this classroom group consensus was not required. When used in this manner collaborative testing becomes a type of posttest review (Parsons and Teel, 2013; Centrella-Nigro, 2012). Collaborative testing functions to teach students the importance of collaboration, which was identified as one of the Quality and Safety Education for Nurses (QSEN) project competencies. QSEN defines teamwork and collaboration as the skills required for a nurse to “function effectively within nursing and inter-professional teams, fostering open communication, mutual respect, and shared decision-making to achieve quality patient care” (QSEN, 2014). Collaborative testing is a learning strategy that encourages students to participate, negotiate, and work together as a team during testing. Social interdependent theory (Johnson & Johnson, 2005) identifies the positive effect of the use of effective communication in order to reach a common goal. The use of collaborative testing can help students develop skills that are important for competent nursing practice. Three research questions were used to guide this study: (1) Is there a difference between the class average individual test score and the average class double-testing test score on unit examinations over eight semesters? (2) How much difference occurs between the class average individual test score and the average class double-testing score on unit examinations over eight semesters? (3) Are students satisfied with the double-testing method? **Literature Review:** Collaborative testing methods have been used successfully in a variety of settings within nursing education. Research indicates that students have reported high satisfaction with the use of collaborative testing (Gallagher, 2009; Hanna, Roberts, & Hurley, 2016; Sandahl, 2010; Wiggs, 2011). Research also indicates that examination scores are higher with the use of collaborative testing (Eastridge, 2014; Martin, Frieson, & Pau, 2014; Molsbee, 2013; Sandahl, 2010) causing some concern related to grade inflation (Duane & Satre, 2014). Heglund and Wink (2011) studied the effect of collaborative testing on the examination scores of 166 nursing students and reported a 3% grade increase that did not meet the criteria for statistical significance. **Data Collection:** There were two aims of this study. The first aim was to determine the percentage of grade increase that students received over the course of eight semesters with the use of double-testing ( $n=403$ ). A second part of the study focused on student perceptions of the use of collaborative testing. This study utilized a convenience sample of traditional nursing students in the first semester of a baccalaureate nursing program. Following IRB approval, average examination scores were obtained from the Black Board grade book using the course statistics feature in order to determine the amount of grade increase realized from the use of collaborative testing. Each semester six unit examinations are administered using double-testing. Three average scores were obtained for each examination; an independent score for the solo examination (Test A), the score received following the group discussion (Test B), and the final examination score which is usually the average of Test A and Test B. Collaborative testing is not used for the comprehensive course final examination. In order to determine student satisfaction, the course evaluation for the Fall 2016 semester included three questions concerning student satisfaction with collaborative testing ( $n=38$ ). **Findings:** The average grade increase over eight semesters was 3.3%, which is consistent with the findings of Heglund and Wink (2011). As for student satisfaction, consistent with past research, most students (90%) strongly agreed that they enjoyed the use of collaborative testing. **Recommendations:** To decrease concerns related to grade inflation an educator may consider awarding collaborative testing points only to those students who independently pass the examination. A 3% grade increase may or may not be sufficient to increase a student to a higher letter grade, but students do appreciate the opportunity for further learning that may add a few points to their grade. Educators may feel that the time spent in test review is worth the rewarding of a few extra points. Students do express high satisfaction with collaborative testing and feel that it is a worth-while addition to learning.

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## D 04 - Health Promotion in Diabetes

### A Student Organization and Peer Support Impacts College Students' Health and Wellness: Diabetes Exemplar

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#### Abstract

#### **College Campus Living with a Chronic Condition**

In the United States, 20% of youth have a chronic medical condition or special health care need (Health Resources Services Administration, 2016). With rapid advances in medicine, young adults with chronic conditions are living longer, attend college at a higher rate, and develop into successful adults. Students with a chronic condition have impaired health related quality of life (QOL) compared to those without a chronic condition and a higher level of loneliness/isolation (Herts, Wallis, & Maslow, 2014). Surprisingly, only 7% of first year college students with chronic conditions knew another student with a chronic illness and 57% reported not knowing anyone with chronic illness (Herts, Wallis, & Maslow, 2014). Fortunately, some universities have student organizations with a medical focus, including Chronic Illness Advocates, Active Minds, Lori's Hands, and College Diabetes Network. These organizations may help college students with a chronic illness adjust to college living. However, to the authors knowledge, no research exists on membership in a disease specific organizations and its impact on student health outcomes or college experience.

#### **Collaborative Practice: University School of Nursing and a Non-profit Organization**

A collaboration between a faculty member in a school of nursing at a university, and a diabetes non-profit organization The College Diabetes Network (CDN) began with a common interest of improving the college experience and beyond for young adults with type 1 diabetes (T1D). This is best achieved through student organization membership, educational materials for patients and their families, and dissemination of data-based research to the healthcare community. This evolving collaboration yielded a study examining the impact of involvement in a student organization (CDN chapters) and physical and mental health outcomes.

#### **College Campus Living with a Chronic Disease: Type 1 Diabetes**

T1D is becoming more common in the United States. Between 2001 and 2009 there was a 21% increase in the prevalence of T1D in people under age 20 (Centers for Disease Control and Prevention, 2014; Dabelea et al., 2014) In the U.S., 5 million people are expected to have T1D by 2050, including nearly 600,000 youth (Dabelea et al., 2014; Imperatore, et al., 2012). At any given time, there are an estimated 53,000 college students with T1D in the United States (Roth, 2014). However, no specific data on prevalence in this age group is available, as research is lacking in this population.

Many young adults without a chronic condition have difficulty adjusting to this campus living and balancing academic, social life, and psychological well-being. This balancing act is even more complex for students with T1D who require vigilant self-management that includes consistent insulin administration, proper nutrition, physical activity, and sleep patterns. Unlike other diseases, 95% of diabetes management decisions are made by the patient. A qualitative study in Denmark of young adults found a need for peer support emerged from students feeling loneliness from a diabetes perspective (Joensen, Filges, & Willaing, 2016). The newfound freedom of independent living, and loss of prior peer support from high school coupled with the intensive management requirements of diabetes can be the perfect storm.

Management of hemoglobin A1c (HbA1c) levels, daily blood glucose management, and fear of complications, on top of college living, can be an extraordinary amount of pressure. In addition to day to day management decisions, there are a variety of other factors that must now be balanced without the assistance of a parental support system. These include knowing the affect blood glucose on exercise, when it is not safe to drive, the effects of alcohol on blood glucose levels, managing illnesses, ordering diabetes supplies, making doctors' appointments, and even keeping track of insurance claims.

Other challenges faced by these students include the effect of high/low blood sugar on cognitive function, classroom accommodations, dining, and housing. As with other chronic conditions, mental health must not be overlooked. Of 150 teens and young adults (ages 11 to 25 years) with T1D, Soren and Grey (2015) found depression and anxiety (11% and 21%, respectively) among the participants and 20% had disordered eating. Teens and young adults with mental health issues are twice as likely to have poor diabetes control, putting them at risk of both short and long term complications.

#### **Diabetes Registered Student Organization**

Started in 2009, the College Diabetes Network (CDN) is a non-profit organization that provides information and resources to young adults with T1D, as well as access to peer support. Their "mission is to provide innovative peer based programs which connect and empower students and young professionals to thrive with diabetes." CDN currently has over 110 affiliated student-led Chapters on campuses across the US, with over 30 Chapters in the process of getting started.

In addition to CDN's Chapter Network, additional programs include empowering young adult leadership with the diabetes community, and programs for newly diagnosed young adults (those diagnosed with T1D between the ages of 17-25). Recent events hosted by CDN include a focus group of newly diagnosed young adults to assist in the development of specific resources for this population (research article pending), as well as a Student Leadership Retreat, which has recently completed its fourth consecutive year.

CDN also provides resources to assist with the transition to independence through audience-specific "Off to College" booklets, with both a student and a parent version. These booklets include topics such as looking at schools, packing, finding a new clinician, parent/child communication, expected campus challenges, talking to roommates, alcohol, and much more. Further, the "Off to College Event Host Guide" assists clinicians in hosting "transition events" for high school students with T1D.

Recently, the CDN Campus Advisory Committee developed the "Campus Toolkit Program" that includes a toolkits for Disability Services, Counseling Centers, and Health Centers. These toolkits are designed to help key departments on college campuses provide better support and resources to students with diabetes, with the goal of minimizing negative health and academic outcomes and improving student experiences in college. A pilot to 25 campuses will be conducted for the 2017-18 school year.

#### **Evaluation of a Diabetes Registered Student Organization: Collaborative Practice**

**Design:** This was a descriptive research design using an electronic survey. The purpose of the study was to examine the relationship between membership of diabetes student organization (CDN Chapters) and mental and physical health outcomes including HbA1c, and perception of isolation, and depression.

**Methods:** An electronic survey was developed based on challenges experienced by college students living with diabetes. A purposeful sample was recruited for the study using the CDN database and emails were sent to those identified as “student”, which included members of local university chapters and non-members across the United States. The survey was completed between April 3rd-24th, 2017. Of the 532 who completed the survey, 375 met the inclusion criteria of young adults with T1D currently enrolled in an undergraduate or graduate college program. If interested participants could enter their email for a chance to be entered into a raffle for Amazon gift cards after completing the survey.

**Analysis:** All data was analyzed using IBM Statistical Package for the Social Sciences (SPSS) version 23, Chicago IL. Standard descriptive statistics were used to analyze the outcomes, demographic, and independent variables of interest. Chi Square and Pearson correlation was used to examine the relationship and difference between member and non-members of a diabetes student organization.

**Results:** CDN Chapter members (n = 246) and non-members (n = 129) completed an online survey. There was an inverse relationship of college students’ level of isolation when entering college and joining the diabetes student organization (20% and 49%, respectively). Thirty-one percent of CDN chapter members reported a decrease in their HbA1c compared to 43% of non-members reporting a rise in HbA1c. Among those with an eating disorder, almost half of the CDN chapter members reported an improvement, while more than half of non-members reported that their eating disorder worsened. Similar results were found when asked about feelings of depression. Membership in CDN improved health and college experience with less isolation among the group of study participants.

**Conclusion:** College transition is difficult for some and is more complex with a chronic illness such as T1D. Student organizations can have a positive impact on college students health and improve their college experience. More than half of the participants strongly agreed that their college CDN Chapter helped them connect with other people who understand what they are going through. The study cannot be generalized to other organizations, however, it could be replicated with other organizations. More research is needed in this area of young adults transitioning with chronic illnesses. Results translate in many areas of academia including student health, disability support services, faculty education, and mental health services. Also, clinical practitioners must understand the resources available to college students as they transition their patients to college or adult health care. Practice changes in transition and policies in the academic setting require leaders to understand the effect on young adults with chronic conditions and make policy changes to improve college living for those with chronic conditions.

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## D 04 - Health Promotion in Diabetes

### Implementing Health Promotion for People With Disabilities: Process Evaluation of a Pilot HealthMatters Program©

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#### Abstract

Regular physical activity together with healthy eating habits result in health benefits that include reducing the risks for chronic medical conditions such as cardiovascular diseases and type 2 diabetes (U.S. Department of Health and Human Services, 2008). Currently, 40% of adults with a disability are inactive compared to only 19% without a disability in one state's survey (Sparling et al., 2015). Nationwide, adults with disabilities experience higher health risks and health care utilization indicating the need for better health promotion training for health care providers (Havercamp & Scott, 2015). To address this disparity, a pilot HealthMatters™ Program (Pilot), an evidence-based health promotion program developed specifically for adults with Intellectual and/or Developmental Disabilities (IDD) (Marks, Sisirak, & Chang, 2013), was implemented. To better define best implementation practices the implementation process was retrospectively studied with the following PICOT question: for participating adults with IDD (Population) attending a community day program, how did the implementation of HealthMatters™ Pilot intervention (I) compare (C) to HealthMatters™ Program design with respect to process-oriented outcome (O) measures for this 12-week (T) Pilot? The training of the staff trainers, the curriculum attendance of the 10 participants with IDD, the primary care providers (PCP) responses to Pilot participation notifications, the participants' weight/BMI and blood pressures prior to and at the conclusion of the 12 week curriculum were analyzed. Pilot costs and survey tools were applied after completion of the Curriculum. Process-oriented measures focused on participation (reach), fidelity (concordance of the Pilot's implementation compared with the HealthMatters™ Program), context (environment) and the costs of the implementation process (Bodde, Seo, Frey, Lohrmann, & Van Puymbroeck, 2012). Ten (10) participants, and their PCPs, participated in the HealthMatters™ Pilot with 80% and 100% participation rates, respectively. The Pilot's process strengths included high participation and survey satisfaction with Curriculum and training, relatively low participant and sponsor costs (~ \$300/participant). Weaknesses included limited opportunities for caregiver participation and challenges with scheduling staff time leading to inconsistent curriculum fidelity. Opportunities identified included the following: high potential to partner with PCPs and for organizational growth to sustain health promotion goals beyond the 12 week program; favorable cost-value projections for a future statewide implementation of HealthMatters™ Programs for eligible adults with IDD. Pilot Health Promotion programs for individuals with IDD are well suited for process evaluations and the development of curricula for best nursing practices to promote health in adults with disabilities.

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## D 05 - Collaborations to Enhance Learning

### Substance Abuse Brief Intervention Referral to Treatment an Evidence-Based Approach to Reduce Risk

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#### Abstract

In the United States, 88,000 deaths are related to alcohol, making it the fourth leading cause of preventable deaths (Stahre, Roeber, Kanny, Brewer & Zang, 2014). It is estimated that about 30 percent of US adults experience a mental health or substance abuse disorder in a year, and many struggle with both. A recent survey indicated that only 19.8% were ever treated (Grant et al., 2015). Substance abuse frequently begins in adolescence. Substance abuse at an early age can lead to long term physical and social problems (Carney, Myers, Louw & Okwundu, 2016). Although substance abuse leads to deterioration of physical and mental health, most nursing curriculum does not include information on screening and intervening for substance abuse. The United States Joint Commission on Accreditation recently included SBIRT core measures for alcohol as part of their evaluation measures (Broyles, Kraemer, Kengor, & Gordon, 2013). Nurses, as the largest group of healthcare providers should be taught to screen and intervene for substance abuse (Pushkar, 2013).

Substance Abuse, Brief Intervention and Referral for Treatment (SBIRT) is an evidence-based practice to reduce risk. SBIRT is built upon change theory and motivational interviewing. Motivational interviewing is a person centered counselling style that can be utilized to promote a number of lifestyle changes (Ostlund, Wadensten, Kristofferzon & Haagstrom, 2015). Motivational interviewing has been used as an effective strategy in a variety of settings. Motivational interviewing has the client identify the positives and negatives of a behavior and describe benefits of change. Motivational interviewing has had a positive impact on medication adherence in bipolar disorder, (McKenzie & Chang, 2015), weight loss and increased physical activity (Hardcastle, Taylor, Bailey, Harley, & Hagger, 2013) and smoking cessation (Lindson-Hawley, Thompson, & Begh, 2015). Two faculty (one nursing and one social work) at Ramapo College participate in a nationwide learning collaborative on substance abuse. In response to a call for funding, the faculty (Nursing and Social Work) collaborated on a proposal to introduce Substance Abuse Screening and Brief Intervention (SBIRT) to both the graduate and undergraduate nursing and social work programs. SBIRT is an evidence based practice that has been an effective strategy for risk reduction in persons with substance use disorders (Tanner-Smith & Lipsey, 2015). Studies have noted that SBIRT can take five to thirty minutes, depending on the patient's reported use and is appropriate for many settings. Nurse and social work led integration of SBIRT into practice can identify patients at risk of substance abuse and allow intervention early in the addiction process.

To educate our nursing and social work students in the use of SBIRT, we introduced the topic of substance abuse through required readings and an online education program on substance abuse. After completion of the introductory information students completed an online interactive simulation with avatars as patients. The interactive learning simulation allowed students to learn and practice the skills needed for SBIRT. After completing these three activities, the students signed up to participate in role play using SBIRT with their peers. Students were given the opportunity to play both the client and the nurse/social worker. The student were given client scenarios and were asked to role play the assigned client. The client's background, age, substance use and willingness to change were on the client scenarios. The professional (nurse or social work student) had a check sheet to use as they did their assessment. They took turns playing the client and nurse or social worker and used motivational interviewing to discuss change. Peer and instructor feedback was provided to each participant. Debriefing in all groups included reflection and discussion regarding beliefs about substance use and abuse.

The faculty decided to provide inter-professional learning opportunities. Due to class schedules and clinical, it was hard to arrange a joint time for the undergraduates to engage in interdisciplinary education. However, we were able to arrange a joint experience with the graduate students. The graduate nursing and social work students did inter-professional role plays with each other. When possible nurse-social work dyads were utilized. Peer feedback was given and the role and perspective of nursing and social work was discussed. Both the nurses and social workers reported being apprehensive at first, but said in the debriefing they appreciated the opportunity for inter-professional role play.

During two academic years, 250 nursing and social work students and field preceptors were educated on motivational interviewing and SBIRT. Students completed surveys (before and after SBIRT) assessing knowledge and skills in discussing use of substances. Post surveys showed increased knowledge, skills and attitude towards persons with substance abuse disorders after completion of the education. Widespread integration of SBIRT into the curriculum will allow for SBIRT to become a routine part of care for nurses and social workers. The use of SBIRT at routine visits, during hospitalizations and emergency department visits may help identify persons and risk and lead to early intervention.

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## D 05 - Collaborations to Enhance Learning

### Nursing Student and Instructor Preference for Clinical Models: Evidence to Support Curriculum Development

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#### Abstract

**Background:** Clinical placements are the keystone of any baccalaureate nursing program to enhance student integration of knowledge into practice. However, the curricular structure of the clinical placement has been minimally considered as it relates to the perceived impact on student learning (Danner, 2014). A clinical model that allows for students to be in the clinical setting for multiple consecutive shifts for approximately 36 hours per week can be described as a block clinical model. In this model, students are not registered in other concurrent theory courses or labs. A clinical model that allows for students to attend clinical for 8 to 12 hours per week while concurrently taking other courses can be described as a non-block clinical model (Rohatinsky, Chachula, Compton, Sedgwick, Press, & Lane, 2017).

**Purpose:** This descriptive exploratory study used a combined 91-item Likert survey tool with open ended questions to investigate the effects of two different clinical models on student learning from both student and instructor perspectives. This presentation will describe the thematic analysis results from the open ended question: *Given a choice between [participating in /teaching in] block clinical or non-block clinical, which would you choose? Why?*

**Methods:** Perspectives from clinical instructors and baccalaureate nursing students in five universities located across four western Canadian provinces were sought. The targeted universities offered both block and non-block clinical models. Instructors were eligible to participate in the study if they had taught in at least one clinical rotation in any year of the nursing program. Nursing students were eligible to participate in the study if they had completed at least one clinical rotation in any year of their program.

After ethical and organizational approvals were obtained from the participating institutions, students and instructors were invited to participate via email containing a link to a secure survey site. Responses were received from 141 students and 52 instructors. The researchers used Braun and Clarke's (2006) thematic analysis method to code and analyze the data from the open-ended question.

**Results:** When participants were asked about their preference for a block versus non-block clinical model, four major themes arose: *learning and applying nursing knowledge; time for growth, evaluation, and reflection; integrating and immersing into the clinical environment; and assimilating and transitioning into the real world of nursing.*

Learning and Applying Nursing Knowledge

**Instructor perspectives.** The non-block clinical model was seen as an opportunity to develop, facilitate, and scaffold student learning by building upon the knowledge and skills learned in the classroom and applying them in the clinical environment.

**Student perspectives.** The development of knowledge, skills, and abilities was believed to occur in both block and non-block clinical models. Students believed that praxis occurred in both clinical models and that the application of theory in practice was important to support evidence-informed nursing care.

Time for Growth, Reflection, and Evaluation

**Instructor perspectives.** Instructors believed non-block clinical allowed students greater time to reflect and grow in their experiences and thus facilitate student learning. This model also allowed students the ability to show growth and improvement and allowed instructors to more easily evaluate and support students if required.

**Student perspectives.** Both block and non-block clinical environments encouraged time for growth and professional development as a student nurse. Although, students indicated that block clinical allowed for more time to prepare for and focus on the clinical day, with fewer distractions and more social time.

Integrating and Immersing into the Clinical Environment

**Instructor perspectives.** Block clinical allowed students the opportunity to refine their technical skills and develop proficiency in clinical reasoning, problem solving, critical thinking, and organization. Some instructors mentioned drawbacks of block clinical including challenges in making up for lost clinical time if students were absent. Opportunities with block clinical included mentoring of students by staff members.

**Student perspectives.** Students commented on developing greater confidence and increased independence as an outcome of the block clinical model. The block model was also preferred over the non-block model with regards to developing professional relationships with staff and patients.

Assimilating and Transitioning into the Real World of Nursing

**Instructor perspectives.** Instructors believed block clinical simulated the realities of nursing and shiftwork expectations. Instructors believed that the implementation and application of the nursing process was better enacted by students within the block model as it facilitated continuity of patient care and the building of patient rapport. This type of clinical model allowed students to concentrate solely on their clinical experiences. However, block clinical often resulted in exhaustion of students by the end of the block of shifts.

**Student perspectives.** Students reported that block clinical provided a greater experience that reflected the 'real world' of nursing and facilitated transition into practice. Students also found that block clinical provided greater continuity of care and allowed them to follow their patients' through the nursing process.

**Conclusion and Implications for Nursing Curricula:** According to participants, the acquisition and application of nursing knowledge occurred in both block and non-block clinical models. Strengths and challenges were identified for each model. However, participants believed the non-block model better supported learning within the early years of nursing education to create a foundation of practice that links theoretical content with nursing skills; whereas the block model better supported immersion, consolidation of practice, and transition into nursing practice. This study aligns

with previous literature in which participants reported non-block clinical was better suited for novice students developing their nursing knowledge who required time to adjust to the clinical environment, while the block model was better suited for students in upper years of the nursing program for integration into practice (Rohatinsky et al., 2017). Ultimately, both types of clinical models are beneficial to integrate into nursing curricula to facilitate student learning.

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## D 06 - Novice Student Stress

### Effects of Mindfulness Training on Perceived Level of Stress and Performance-Related Attributes in BSN Students

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#### Abstract

A critical issue that continues to impact nursing students is the stress that develops during their academic program. Stress in nursing education has been reported over several decades (Ratanasiripong, Park, Ratanasiripong, & Kathalae, 2015). The stress that students experience during their curriculum negatively impacts their performance-related attributes, resulting in poor attention and concentration (Capp & Williams, 2012) and decreased memory and problem-solving abilities (Spadaro & Hunker, 2016). Mindfulness practice may offer a unique way to manage stress (Ratanasiripong et al., 2015), improve academic performance (Spadaro & Hunker, 2016; van der Riet, Rossiter, Kirby, Dluzewska, & Harmon, 2015), and ultimately mitigate stress, burnout, and attrition in professional practicing nurses (Dwyer & Hunter Revell, 2015; Newsome, Waldo, & Gruska, 2012; Smith, 2014).

The literature is replete with evidence that suggests nursing students are subjected to stressors beyond typical college stressors (Chernomas & Shapiro, 2013). Nursing students encounter stressful clinical experiences as they confront death and dying patients (Ek et al., 2014), communicate with professionals and patients (Alzayyat & Al-Gamal, 2014), and use preprofessional judgment in high-pressured environments. Academic challenges are related to the comprehension and application of extensive nursing knowledge and skills. The knowledge required for effective, safe health care increases exponentially every year (Bordoloi & Islam, 2012) and students must learn within a limited academic period. Role strain and role conflict (Higginson, 2006) arise as a majority of nursing students are female but gender bias also occurs and male nursing students face their own unique stressors as they enculturate into the profession (Chan et al., 2014; MacWilliams, Schmidt, & Bleich, 2013).

Stress does not cease once the nursing student graduates and passes the NCLEX-RN. As the novice nurse enters professional nursing practice, he or she is faced with overwhelming clinical responsibilities, continuing education requirements, professional incivility, and challenging work schedules that may lead to attrition and burnout (Beck & Gable, 2012; Clark, Nguyen, & Barbosa-Leiker, 2014; Hickerson, Taylor, & Terhaar, 2016; Oyeleye & Hanson, 2013; Rushton, Batcheller, Schroeder, & Donohue, 2015). It is clear that nursing students require an effective way to manage stress during their academic program that has the potential to enhance their professional nursing practice.

This preliminary study utilized a pretest-posttest true experimental design to examine the differences in perceived level of stress and performance-related attributes in baccalaureate nursing students who received mindfulness training and those who did not. A small ( $N = 12$ ) convenience sample of junior nursing students about to enter their first clinical experience participated in the study across 16 weeks. The experimental group received mindfulness training for 8 weeks while the control group met in study sessions for 8 weeks. Both groups completed pre- and posttest evaluations using two reliable and validated instruments (Derogatis, 1984; Weinstein & Palmer, 2002). Cumming's (2014) Exploratory Software for Confidence Intervals (ESCI) was utilized to calculate point estimates (i.e., group means) and confidence intervals.

The Derogatis Stress Profile (DSP; Derogatis, 1984) was used to examine students' perceived stress levels. The DSP is a 77-item, self-report inventory originating from interactional stress theory that proposes stress is comprised of three interactional components: environmental events, personality mediators, and emotional responses. It also measures subjective stress to provide an estimate of the respondent's conscious awareness of his or her stress level. The Learning and Study Strategies Inventory (LASSI; Weinstein & Palmer, 2002) was used to examine students' performance-related attributes. The LASSI is an instrument that assesses respondents' study strategies relating to three components of skill, will, and self-regulation. This self-report inventory is a 10-scale, 80-item assessment of respondents' awareness about and use of learning and study strategies that focuses on covert and overt thoughts, behaviors, attitudes, and beliefs.

The findings of this preliminary study supported previous recommendations for the use of mindfulness as a method to decrease nursing students' perceived levels of stress. The results of the posttest DSP suggested that the students who received mindfulness training demonstrated lowered mean stress scores than students who did not receive such training, with noteworthy corresponding reductions in subjective and total stress scores. However, this study also showed the potential for mindfulness to improve individual performance-related attributes. Mindfulness practice has emerged as a method to reduce stress across many educational settings but has not yet been fully investigated as a method to influence academic performance. The results of the posttest LASSI suggested that although both groups improved their study habits, the students who received mindfulness training exhibited a greater strengthening in the performance-related attributes of concentration, selecting main ideas, time management, study aids, and test strategies.

As exhibited by the results of this study, mindfulness training should be offered as an integral supportive resource in any nursing curriculum. Higher education settings are presently experiencing a transformation in the student population as more students who have disabilities are included in educational programs (Cortiella & Horowitz, 2014). The Americans With Disabilities Act of 1990 requires nursing programs to include students with learning disabilities (Betz, Smith, & Bui, 2012). Educational settings have developed student success programs to accommodate or assist learners (Marks & McCulloh, 2016; Neal-Boylan & Smith, 2016) and mindfulness should be integrated into these programs. Mindfulness has been utilized to improve concentration (Singleton et al., 2014), time management (McCloskey, 2015), and anxiety, mood problems, and social skills in adolescents with learning disabilities (Beauchemin, Hutchins, & Patterson, 2008; Haydicky, Wiener, Badali, Milligan, & Ducharme, 2012).

Mindfulness has emerged as an innovative approach to stress management in educational settings but there is a paucity of literature that has examined its use related to academic performance. Much of the historical and recent literature on mindfulness in nursing education has focused on altering stress, depression, anxiety, empathy, and burnout in students. The few studies to date that have examined the use of mindfulness to affect academic performance in nursing students have suggested the practice improves attention selection, concentration and focus, accuracy, and clarity of thought (Spadaro & Hunker, 2016; van der Riet et al., 2015). The results of this preliminary study provide additional evidence that adds to the growing body of literature related to the use of mindfulness training, stress, and performance-related attributes.

Mindfulness training is needed to help nursing students successfully complete their curriculum and has implications for professional nursing practice. By decreasing stress levels while studying, students may be able to focus on their learning and integrate knowledge more effectively. Nursing students who manage negative emotions and develop improved academic skills have a greater potential to successfully pass the NCLEX-RN,

which could mitigate the current nursing shortage (National League for Nursing, 2014) and prevent professional burnout (Horner, Piercy, Eure, & Woodard, 2014). Mindfully-practicing nurses could impact clinical safety to help reduce the incidence of medical errors and improve patient satisfaction (Brady, O'Connor, Burgermeister, & Hanson, 2012; Hallman, O'Connor, Hasenau, & Brady, 2014; Horner et al., 2014; Mumber, 2014; Smith, 2014). Mindfulness training could be shared with patients, families, and colleagues as a health promotion strategy to improve levels of stress in relation to chronic/acute diseases and professional stressors (Bryer, Cherkis, & Raman, 2013; Hensel & Laux, 2014; Williams, Simmons, & Tanabe, 2015). Further exploration utilizing larger samples is needed to determine if mindfulness training can be effective for modifying other nursing students' levels of perceived stress and performance-related attributes.

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## D 06 - Novice Student Stress

### Obtaining Patient Information and Anxiety in Novice Nursing Students During the First Clinical Rotation

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#### Abstract

**Background:** While admission to a nursing program is exciting, rigorous education demand can cause stress, depression and anxiety in students, that interfere with learning, affect academic performance, and impair clinical performance (Chernomas & Shapiro, 2013). Particularly, novice nursing students (NSs) feel highly anxious during their first clinical rotation due to limited clinical experiences and knowledge (Bayoumi, Elbasuny, Mofereh, Assiri & Al fosal, 2012; Sun, Long, Tseng, Huang, You & Chiang, 2016). According to Hildegard Peplau's theory of interpersonal relations, any threats to security (i.e. environment, health, interaction), particularly the experiences of actual or potential unmet needs, are major sources of anxiety (Kim, 2003). Attaining patient information during a fast-pace shift report with unfamiliar terminologies in an unfamiliar clinical environment can be a threat to security for novice NSs. Nursing students, however, are required to obtain data on their assigned patients at the beginning of the shift, as pertinent patient information guides to plan the care of the assigned patients. A study showed that students had difficulty retaining information when their anxiety level was elevated (Cheung & Au, 2011). It is not clearly known how proficient novice NSs are in obtaining information on their patients during the shift report when their anxiety levels are high. The purposes of this study were to (1) identify the anxiety levels of novice NSs and (2) to gain the knowledge on the types of patient information and sources of information that NSs utilized during the first clinical rotation. It is hypothesized that at the beginning of the first clinical rotation when the anxiety levels were high, novice NSs would depend more on the computer to obtain patients' data and that they would gradually obtain more information from the shift report as they became less anxious.

**Materials and Methods:** Forty NSs in their first clinical rotation of a bachelor of science in nursing (BSN) program participated in this study. They have completed four semesters of general education required for BSN program and have just been introduced to basic nursing skills and pathophysiology in the fifth semester of BSN program. The expected learning outcome of the first clinical rotation is for NSs to demonstrate fundamental nursing skills, critical thinking, and clinical reasoning to enhance patients' health outcomes and quality of life, by developing nursing care plans and applying theoretical content in the clinical setting. The novice NSs were divided into four groups. There were ten students with one clinical instructor in each group and four groups were placed on four different units in an urban community hospital. Each group stayed on the same unit throughout the semester. Students were generally assigned to different patients on each clinical day except on the second consecutive clinical day if the same patients were available. The clinical days started at 7am and were composed of two 6-hour clinical days per week for three weeks, then one 8.5-hour clinical day per week for the following five weeks, excluding pre and post conferences. The State-Trait Anxiety Inventory (STAI) has been widely used to assess anxiety levels among various adults and children (O'Roark, Priet, & Brunner, 2014; Julian, 2011). The short form of STAI was used to assess NSs' anxiety levels in the morning of a clinical day. In the short form, state anxiety and trait anxiety are each measured by the 10 best items from the original STAI (Spielberger, 2015). At the end of the day NSs were asked to indicate the types of patient information that they obtained by 9am and from what resources they gathered the patient information. The anxiety levels and the patient information were assessed on the first clinical day, fifth clinical day (midpoint) and the tenth clinical day (excluding onsite orientation day). A Paired T test was used for the comparisons of the mean STAI scores between the first clinical day and the fifth day and between the fifth day and the tenth day.

**Results:** The anxiety levels of novice NSs dropped significantly and consistently throughout the clinical rotation ( $P < 0.0001$  for the differences in mean STAI scores both between the first and fifth day and between the fifth and the tenth day). The most prevalent resource for obtaining patient information used by novice NSs was the facility's computer system throughout the rotation. In addition, there is a slight, progressive increase in the number of NSs who obtained patient information from the previous shift RNs (18% of the students on the first day, 18% at midpoint, 22% on the last day). As the anxiety levels decreased and NSs had more clinical experiences, more patient information was obtained as expected. By the tenth clinical day, more than 90% of NSs obtained demographic information such as diagnoses, isolation status and allergies by 9am but less NSs obtained night-shift vital signs (80% of the students), oxygen saturation (70%) and the pain levels (38%). By the tenth clinical day, the early morning laboratory data of their patients were collected by 90% of NSs by 9am. The previous night's sleep status and intake and output were not consistently obtained by novice NSs.

**Conclusions:** The study was conducted to identify the types of patient's information and the sources of information during the first clinical rotation when the anxiety levels were high. Novice NSs' anxiety levels decreased over time as they had more clinical experiences. Continuous reduction in anxiety levels may indicate that students were gaining more confidence, becoming familiar with the clinical environments and becoming more comfortable providing patient care as the semester progressed. Regarding resources for obtaining patient information, computer use was consistently the most popular source for all types of patient information throughout the rotation and this indicates the importance of orienting NSs to the facility's computer system at the very beginning of the clinical rotation. Not as many novice NSs as hypothesized obtained patient information from the previous shift RNs even by the end of the first clinical rotation, though there was a slight trend that more NSs obtained information from the previous shift RNs overtime. It is important to gradually encourage novice NSs, as their anxiety levels decrease, to obtain patient information from the shift report, especially information such as pertinent events that occurred during the previous shift. There were additional important findings from the results of this study. The fact that the majority of novice NSs obtained laboratory data by the tenth clinical day indicated that they were quickly learning to use critical thinking to understand their patients' conditions. On the other hand, it is eye opening to discover that more than a half of novice NSs failed to obtain the previous shift's pain levels of their patients. This suggests the importance of instructing NSs that obtaining pain levels as well as other vital signs of their patients is essential as they assess the patients and plan to provide the care for the patients. These findings will assist clinical instructors in guiding novice NSs to obtain essential information on the assigned patients at the beginning of the clinical day. This will enable NSs to develop systematic plans to provide safe and appropriate care for their patients. This may also help reduce novice NSs' anxiety levels leading to positive clinical experiences with greater learning outcome.

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## D 07 - Psychiatric Simulation Nursing Education Programs

### Evaluation of a Psychiatric Mental Health Clinical Hybrid Program in a Baccalaureate Nursing Program

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#### Abstract

Though integration of simulation to enhance clinical competencies has gained significant attention within the nursing literature over the past decade, minimal findings have been noted regarding the impact of a psychiatric mental health clinical simulation program on overall learning outcomes in a baccalaureate nursing program. In a recent study published by the National Council of State Boards of Nursing, Hayden, Smiley, Alexander, Kardong-Edgren, and Jeffries (2014) provided substantial evidence that standard clinical competencies and learning outcomes could be maintained with up to 50% of the traditional clinical experience being replaced by clinical simulation. This report, in combination with accelerated nursing student enrollments, increased competition for psychiatric clinical sites and limited access to experienced advanced practice psychiatric nurses to fulfill the clinical instructor role became the impetus for a pilot psychiatric mental health clinical hybrid program (PMHCHP) in a baccalaureate nursing program in the spring of 2015. In the spring of 2016, approval by the program's Institutional Review Board was obtained to evaluate the impact of this PMHCHP on student learning outcomes and compare findings to students who did not receive this program in the previous three semesters.

The PMHCHP incorporated inpatient, community and clinical simulation with lab to create a comprehensive psychiatric mental health nursing clinical experience for senior nursing students. Thirty-six percent of required clinical hours were dedicated to simulation and lab experiences. Guidelines from the International Nursing Association for Clinical Simulation and Learning: INACSL Standards of Best Practice: Simulation (2013) assisted in the development of simulation components of the PMHCHP. These included the importance of actively addressing affective, cognitive and psychomotor domains of learning along with incorporation of high and low fidelity simulation opportunities for students. Core psychiatric mental health nursing competencies were also enhanced in the clinical simulation with lab component through self-reflective exercises and learning activities that addressed the impact of stigma, consumer and family perspectives, clinical interviewing skills, debriefing processes, suicide assessment and interventions, care of the actively psychotic patient, alcohol/opioid withdrawal, non-violent crisis intervention training and application of competencies to multiple clinical practice settings.

To evaluate the impact of this new clinical program on student learning outcomes, both quantitative and qualitative data were collected. A quasi-experimental posttest only design with nonequivalent groups was used as students could not logistically be randomly assigned to those who received the PMHCHP and those who did not receive the PMHCHP. A total of 524 senior nursing students participated in this study: 246 students who did not receive the PMHCHP were considered the "control group" and 278 students who received the PMHCHP were considered the "intervention group." This research study reflects data obtained over a three year academic period from the fall, 2013 through the spring, 2016. Comparisons were made on individual students overall test averages, ATI content mastery computerized proctored assessments for mental health with achievement of proficiency level 0,1,2 or 3 and final grades. The Statistical Package for Social Sciences, Version 16.0 (SPSS, Chicago, IL) generated descriptive statistics to summarize data.

Three research questions were established to evaluate quantitative data collected. The first research question addressed whether students who received the PMHCHP scored differently on overall test averages than students who did not receive the PMHCHP. Descriptive statistics were obtained on minimum, maximum and mean scores as well as standard deviation. An independent sample t test was used. Results indicated no statistically significance ( $p=.260$ ) between both groups on overall test averages. The second research question addressed whether students who received the PMHCHP scored differently on final grades compared to students who did not receive the PMHCHP. Descriptive statistics were obtained on minimum, maximum and mean scores as well as standard deviation. An independent sample t test was used. Results indicated statistically significant findings for students who received the PMHCHP ( $p=.017$ ) on higher final grade averages. The final research question addressed whether students who received the PMHCHP scored differently on ATI proficiency level scores than students who did not receive the PMHCHP. This question was best answered with comparison of percentage reaching desired level. Findings reflected a 12.6% higher percentage of scores for ATI proficiency level 2 & 3 for students who received the PMHCHP.

The qualitative component of this research project examined narrative responses by students who participated in the PMHCHP to three questions that addressed their overall impressions of the psychiatric mental health clinical simulation and labs as an alternative learning experience. Several themes emerged including 1) feeling safer and more able to connect with peers in a smaller group setting, 2) the importance of engaging in mock clinical experiences in a non-judgmental, supportive learning environment to reduce anxiety and enhance learning, 3) the value of mock interviews, role plays, crisis intervention training and case presentations in building their sense of competency and confidence in providing safe care, 4) the importance of taking the time to reflect on own

personal perspectives with mental health issues and how this may impact patient care, and 5) the opportunity to develop empathy for those who suffer from mental illness through open discussion, documentaries, movies and active engagement with consumers.

In conclusion, in lieu of increased patient acuity, limited clinical sites and limited seasoned clinical faculty, schools of nursing are challenged to create innovative alternative experiential clinical opportunities to ensure students meet learning outcomes. The findings of this research study suggest that the implementation of a comprehensive PMHCHP that integrates multiple opportunities for simulated and lab experiences in combination with traditional direct care clinical experiences can effectively assist students with achieving and potentially strengthening learning outcomes necessary in a psychiatric mental health nursing course. This is consistent with other studies which have reported similar learning outcomes when examining the impact of replacing a percentage of traditional clinical hours with clinical simulation. Continued research and dialogue within the academic nursing community are warranted to build evidence-based models for student clinical experiences.

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## D 07 - Psychiatric Simulation Nursing Education Programs

### Psychiatric Simulation: Improve Outcomes and Maintain Course Enrollment

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#### Abstract

**Background:** Only 43% of registered nurses in South Carolina hold Bachelor of Science in nursing (BSN) degrees while the national average is 55% (AACN, 2013). South Carolina's goal is to increase the proportion of BSN nurses compared to associate's prepared nurses to 65%. This proportion falls below the Institute of Medicine's call for 80% BSN to increase the workforce capacities of policy, leadership, and research competencies (IOM, 2010). According to AACN (2016), 61% of BSN programs cited insufficient clinical sites as the primary reason for not accepting more qualified BSN program applicants. Problems with clinical placement availability are especially acute in specialty areas such as psychiatric/mental health (MH) nursing (Doolen et al., 2014). MH clinical site closures (Ollove, 2016) and the influx of proprietary nursing school students creates more site demands and student overcrowding (Campaign for Action, 2015). MH nursing clinical settings are particularly vulnerable to student overcrowding because imbalances in the therapeutic milieu adversely affect the healing, psychosocial dynamics of the psychiatric unit (Doolen et al., 2014). These challenges threatened the progression of BSN students through the BSN program at our College in a state significantly behind the national BSN average. The purpose of this educational evaluation project, PsychSim, is to explore outcomes related to the transition from traditional MH clinicals in the undergraduate MH nursing course to 50% simulation clinical replacement. The MH faculty members conceptualized the project using engagement theory (Australian Council for Educational Research, 2010) where engagement improves learning outcomes and is facilitated by active, collaborative learning and student-faculty interaction.

**Project Description:** The PsycSim project replaced traditional MH clinical with 50% simulation targeting critical, MH learning competencies and optimal use of dwindling clinical placement sites. The project was divided into 3 phases. **Phase 1: Development July-Oct 2015.** Faculty members met with the director of behavioral health and MH nurses at the largest health system in the local area. Directors, nurses and faculty collaborated to develop a comprehensive simulation plan based on expected student outcomes, population health needs and health system priorities. Therapeutic communication, assessment and evidence-based interventions such as risk identification, crisis management, screening brief intervention, referral to treatment (SBIRT), and motivational interviewing were included in the scenarios. Scenarios were reviewed by health system nurses for validity and relevancy. **Phase 2: Course Preparation Aug-Dec 2015.** Faculty members created schedules to rotate the first cohort of 102 students (including regional campuses) between simulation and traditional clinical settings. The rotation plan allowed for 2 student groups to utilize 1 clinical site thereby optimizing clinical placement capacity. Faculty revised clinical assignments to reflect the new rotation schedule and trained the simulation coordinator and clinical faculty members in PsychSim methods and best practices in simulation education. **Phase 3: Implementation Jan 2016- May 2017:** In phase 3, 102 undergraduate MH nursing students participated in PsycSim every week. The simulation team and MH faculty members met regularly to discuss needed revisions in rotation schedules, simulation processes, scenarios, or technical issues and revise the procedures appropriately. The team utilized a Plan-Do-Study-Act framework for implementation and project evaluation.

**Evaluation Approach:** The project evaluation included formative and summative quantitative and qualitative student and faculty surveys using the Client Simulation Lab Questionnaire (CSLQ-S). The CSLQ-S measures student perceptions of simulation experiences. Group-level, student performance data was compared to data from previous semesters for benchmarking. Final faculty and student evaluations included the Clinical Learning Environment Comparison Survey (CLECS) (Leighton, 2015).

**Feedback and Results:** Faculty leveraged expertise gained from participation in the National Council of State Boards of Nursing landmark Simulation Study (NCSBN, 2014) and expanded the proportion of simulation in the undergraduate MH clinical course from 8% to 50%. At baseline, 8-10 students per week participated in MH nursing simulation replacing 1 of 12 traditional clinical days per semester. PsychSim increased the MH nursing simulation capacity to 102 students per week, effectively replacing 6 of the 12 traditional clinical days. The strategy doubled the number of students able to use each clinical placement site through a rotation schedule, and tripled the number of simulation experiences available to students.

Students reported that simulation scenarios prepared them to interact with mental health patients and intervene using evidence-based interventions for patient anxiety, depressive symptoms, and situational challenges. On the CLECS, students scored the simulation portion of their clinical experience as *better meeting their clinical objectives* compared to traditional clinical placement. Clinical faculty who predominantly taught in the simulation area believed that simulation better prepared students for practice, while those teaching predominantly in the traditional clinical setting preferred the traditional setting for meeting learning objectives. Both groups of clinical faculty noted that motivational interviewing and other simulation experiences increased students' confidence and professionalism in the clinical area.

**Discussion:** The traditional method of educating nurses by taking a group of 8-10 students to a clinical site is unsustainable because of changes in health care delivery patterns and competition for clinical sites. Only by investing in innovative solutions including simulation expansion to compensate for clinical placement insufficiency will the IOM (2010) goals be realized. The project also represents a substantive curriculum enhancement and builds on the findings from the NCSBN simulation study (2014). PsycSim provides an individualized, innovative educational experience wherein students are systematically prepared for the care complexities they will encounter upon graduation. Such practice-ready BSN graduates are greatly needed in a state with an overall health care grade of "F" and a national rank for health of 45 (United Health Foundation, 2012).

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## D 08 - Student Learning Environments

### Vietnamese Nursing Students' Perspectives on Learning Environments: A Multisite Benchmarking Study to Inform Future Initiatives

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#### Abstract

Over the last three decades Vietnam has experienced rapid economic growth and social change following the shift from a socialist state to a market economy. Similarly, the Vietnamese health sector has been challenged by population growth and shifts from traditional to western lifestyle practices. The disease profile of the population has also changed with greater prevalence of lifestyle related chronic diseases (WHO, 2017). Health care provision, however, remains largely hospital based as there is little focus on preventative or family/community care. Consequently, there is severe over-crowding in hospitals, often more than two patients to a bed, extended lengths of stay, and for nurses, a very heavy workload (1 nurse: 25-30 patients is the norm). The Vietnamese health sector is attempting to address these challenges through development of the health workforce and, in particular, nursing is being transitioned toward an autonomous, university educated profession with nursing-specific benchmarks. However, what remains unknown is how current factors within nursing education environments in both Vietnamese universities and health settings facilitate or are a barrier to nursing students' learning, and the subsequent impact on development of competence. Within the context of this study the learning environment is defined as a combination of forces and interactions that impact negatively or positively on students' learning outcomes, in either the university or health care setting.

This study aimed to investigate undergraduate Bachelor of Nursing students' perceptions of the education environment at both university and clinical experiences in health, within new competency-based curriculum contexts in four universities across Vietnam.

**Literature:** Learning environments in health disciplines typically comprise both on-campus university based learning and off-campus work integrated learning. Within the on-campus theoretical environment, nursing students commonly develop relevant knowledge and skills that prepare them for experiences during off-campus clinical practice where they integrate learning and develop competence through participation in real health care (Flott & Linden, 2016; Kristofferzon et al., 2013). Nursing practice is the cornerstone of developing future nurses and students learn most effectively in clinical environments that support and encourage learning (Bisholt et al., 2014; Dale et al., 2013) yet issues concerning quality in nursing placements persist internationally. In relation to nursing in Vietnam, where bachelor level programmes have been in place for about 15 years (Chapman et al., 2012), the issues affecting on-campus and clinical environments are considerable. For example in on-campus contexts, nursing is taught largely by medicine and superficial recall-based assessment strategies such as multi-choice questions and rote learning dominate curricula. In clinical practice anecdotal evidence from nurse teachers indicates growing levels of student overcrowding, lack of opportunities to implement prior on-campus learning in the clinical situation; and a lack of consistency between university teaching and hospital care practices. There is a paucity of research examining the quality of the university and clinical learning environment in Vietnam upon which recommendations for improvement might be based.

**Methods:** During 2016 a cross-sectional multi-site study was conducted at four Vietnamese universities providing undergraduate nurse education to investigate nursing students' perceptions of on-campus and off-campus learning environment experiences. Following ethical approval, students (n=891) completed two self-report instruments, previously translated into Vietnamese in separate studies using a forward and backward translation process (Sousa & Rojjanasirirat, 2011). The Vietnamese language version of the Dundee Ready Education Environment Measure (V-DREEM) measures students' perspectives of their university learning environment (four-point Likert scale; five subscales and 47 items) (Roff, 2005; Huong, 2013). The Clinical Learning Environment Inventory (V-CLEI), also in Vietnamese language, measures students' perspectives of their clinical learning environment (four-point Likert scale; six subscales, 42 items) (Newton et al., 2010; Troung 2015). Additionally, two open-ended items sought information about barriers and facilitators of learning in the clinical environment.

**Results:** Results showed students were predominately female (84%) and enrolled in 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> year (60%, 27% and 13%) respectively. Statistical modelling showed that that university environments were different between universities ( $p < 0.001$ ) and year of course ( $p < 0.001$ ) but not between gender ( $p = 0.35$ ). V-DREEM scores were similar between year 3 ( $M=126.7$ ,  $SD=16.5$ ) and year 4 ( $M=125.8$ ,  $SD=12.8$ ) students, while year 2 students ( $M=128.7$ ,  $SD=16.4$ ) rated the university environment significantly higher ( $p < 0.001$ ) than students in year 3 or 4. Students' rated the *Perception of Teaching and Learning* subscale highest reflecting satisfaction with this element of the university environment. Overall the V-CLEI mean score was in the low range ( $M=138.7$ ,  $SD 14.7$ , possible range 42-168). Modelling indicated that students' experience in clinical environments was statistically different between universities ( $p < 0.001$ ) and length of clinical placement ( $p < 0.001$ ). Year 2 ( $M=140.4$ ,  $SD=14.9$ ) and year 3 ( $M=138.7$ ,  $SD=13.5$ ) students scored the clinical environment higher than year 4 students ( $M=131.6$ ,  $SD= 14.5$ ,  $p < 0.001$ ) but there was no difference between male and female students ( $p = 0.66$ ) and type of clinical wards ( $p = 0.46$ ). Interactions with clinical staff were the most frequently reported facilitating factor or barrier to student learning.

**Discussion:** Vietnamese students in this study are largely satisfied with new active methods of teaching and learning within their university experience. The clinical environment score in this study was relatively low confirming anecdotal evidence and reflecting a clinical environment not supportive of student learning. Ideally students rate their clinical environment and experiences highly as clinical practice is popular and students

usually engage enthusiastically (Bisholt et al., 2014; Dale et al., 2013). Consistent with patterns found globally, partnerships between universities and hospitals in clinical nurse education, and use of supporting processes such as effective preceptorship are crucial to facilitating students' learning. This study provides benchmarks from which priorities for change were identified for the participating universities. Other universities and colleges across Vietnam will be able to conduct similar evaluations.

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## D 08 - Student Learning Environments

### An Interpretive Phenomenological Analysis of Prelicensure Nursing Students' Perceptions of Their Learning Environment

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#### Abstract

The learning environment in nursing education should be carefully cultivated to ensure positive, meaningful experiences are provided to students. These experiences are critical in order to prepare students to become competent, entry-level nurses upon graduation. Yet, little is known about students' perceptions of their learning environment, including the people, places, policies, processes, and programs (Purkey & Novak, 1996). Thus, exploring students' perceptions of the learning environment is vital to the profession to identify strengths and weakness in current undergraduate nursing education.

**Background:** Through learning experiences, nursing students develop the necessary knowledge and skills needed for entry-level practice (Benner, Sutphen, Leonard, & Day, 2010). These experiences allow students to develop critical thinking skills and the ability to reason, which can lead to more appropriate care for patients (Dauphinee, 2012; O'Mara, McDonald, Gillespie, Brown, & Miles, 2014; Paans et al., 2012). Yet, preparing graduates of nursing programs for their careers has become a substantial challenge for educators. Students currently entering nursing programs across the country have diverse learning needs and backgrounds, such as different life experiences, ages, abilities to utilize technology, and personal demands (Popkess & Frey, 2016). Also, nurse educators report budget cuts in higher education, a nationwide nurse faculty shortage, and note there is a lack of available clinical sites (American Association of Colleges of Nursing, 2015; Benner et al., 2010). Even though many barriers and challenges exist, educators must maximize learning experiences to ensure graduates will be prepared to handle complex situations that will arise in the clinical setting. This can be accomplished, in part, by providing an intentionally inviting learning environment for students' experiences. Gaps noted in the literature pertained to the overall learning experiences of prelicensure nursing students. Most of the published literature focused on quantitative research methods, teacher-student relationships, the clinical environment, and the evaluation of students. It is critical that the nursing profession explore students' experiences of learning to ensure programs provide an optimal environment to promote student development.

**Methodology:** This study aimed to explore and interpret the lived experiences of undergraduate students as they learned in a nursing program. Data gathering occurred through face-to-face interview sessions with 12 prelicensure, senior-level students from two BSN programs in the southeastern United States. Interviews were transcribed and narratives examined through the lens of invitational theory (Purkey & Novak, 1996) and the National League for Nursing's excellence in nursing education model (National League for Nursing, 2006). First and second cycle coding methods as described by Saldaña (2013) were utilized. Next, van Manen's (1990) thematic analysis process provided guidance for the identification of themes and thematic statements.

**Presentation of Findings:** From data analysis, themes and subthemes emerged to describe prelicensure nursing students' perceptions of their learning experiences and the environment. The identified themes were: *Preparing and Learning, Inviting Versus Disinviting, "Roll With the Punches,"* and *The Evaluative Process: "Clicking Through."* In addition, nine subthemes were discovered.

**Learning and Preparing:** One of the strongest themes to emerge from the data focused on preparing and learning. Participants told numerous stories highlighting the importance of preparing for class activities, tests, the simulation lab, and clinical experiences. These participants believed teachers and students should prepare for all activities. Each participant's preparation ritual appeared different; but, all students stressed the importance of being prepared and knowing what they needed to do in order to maximize learning experiences.

**Inviting Versus Disinviting:** Participants perceived many aspects of the learning environment, including the people, places, processes, programs, and policies, as inviting or disinviting to their personal knowledge development. As congruent with invitational theory, participants felt the people aspect of the learning environment had the greatest impact on their personal learning. Students wanted faculty to serve as professional role models, be relatable, easy to have a conversation with, knowledgeable about the content, and approachable.

Participants reported the layout of the building housing the nursing program greatly impacted their learning experiences. Study spaces and access to faculty offices were necessary to facilitate their learning. One surprising finding from this study, was several participants told stories of how the whiteboards were inviting to their learning. In a world where educators always want to utilize an application or other technology to promote learning, several participants noted the simple whiteboards in the library and study rooms helped them to "connect the dots" while studying concepts.

When asked about processes and programs, participants voiced their need for clear and realistic expectations. Unrealistic expectations were extremely frustrating to students. Also, they struggled with the "ever-changing schedule."

**"Roll With the Punches"**

"Roll with the punches" focused more on students' perceptions of what was helpful for their learning and how they progressed through the nursing program. The title came from a comment made by Lee, who said:

I mean that's just a learning process of how to handle that kind of situation and what to do . . . So, I've had to learn how to handle those kinds of situations and just kind of...roll with the punches.

This common theme was noted in many interviews, as students claimed they were "getting through" in numerous instances.

Participants routinely voiced the importance of being focused in order to learn. This required, for some participants, finding quiet study spaces, moving to the front of the classroom in order to not be distracted by peers, and adapting to challenging situations. Though, participants noted classmates served as a great source of distraction in the nursing program, they also believed relationships with fellow classmates were vital to success in a program.

**The Evaluative Process: "Clicking Through"**

Students were asked to share their experiences of evaluating their learning during the nursing program. When questioned about the evaluative process, students focused their reflections on course evaluations. Most were unsure of the purpose of and how institutions utilized the evaluations.

Participants also reported feeling overloaded at the end of the semester and did not put much effort into completing the evaluations. These findings lead one to question the accuracy of student evaluations and the reliability of the data produced by these evaluations.

Implications and Recommendations for Nursing Education: Several implications and recommendations for nursing education were noted. Nurse educators should provide clear and realistic expectations, serve as professional role models, and prepare the learning environment and students for all activities. In regards to evaluation, educators must inform students of the processes and procedures regarding evaluation in order to obtain reliable results from course evaluations. Overall, this study provides valuable knowledge to nursing education because results can guide faculty as they structure and evaluate learning experiences. In the future, more research should focus on the student-teacher connection, technology to enhance learning, various approaches to teaching/learning in nursing education, the evaluative processes, and how to cultivate all aspects of the learning environment to promote student success.

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## D 09 - Teaching Leadership in Nursing Education

### Teaching Undergraduate Nursing Students Leadership Skills Through Simulation and Inpatient Leadership Clinical

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#### Abstract

As professional nursing practice has become increasingly complex, it is well known that leadership skills among nursing are essential to meet practice demands (Kilgore, Goodwin, & Harding, 2013). Nursing is fundamental to effective leadership in the world of today's healthcare. As nursing is the largest component of health care workers, patient safety outcomes, staff satisfaction, healthy work environments, and staff turnover have been positively influenced by successful nursing leadership. To satisfy public demands and expectations of professional nursing, it is essential for nurses to be experienced and educated to serve in leadership roles and accept ownership for their practice (Jukkala, Greenwood, Motes, & Block, 2013). Healthcare facilities as well as nursing educators acknowledge the extending gap between the real leadership ability of new graduate nurses as compared to the desired. As the newer and less experienced nurses often serve in leadership roles, nurse educators take ownership to ensure they are prepared in critical thinking, delegation, organization, and other leadership skills (Gore, Johnson, & Wang, 2015).

It is difficult to correlate a particular educational activity and its relation to achieving competency, especially with an intangible concept such as nursing leadership (Abdrbo, 2012). Learning in the clinical setting is a common and valued component to nursing education as is simulation. Research shows both environments provide effective learning and are essential to nursing education, not only with fundamental clinical skills but with nursing leadership skills (Chunta & Edwards, 2013; Gore, Johnson, & Wang, 2015; McGrath, Lyng, & Hourican, 2012).

A southeastern university's school of nursing defines leadership skill as a core curricular outcome and component within their conceptual framework. Two critical factors identified in their mission are to exemplify excellence in teaching and to ensure graduates are prepared to assume leadership roles in the provision of nursing care. The following is an excerpt from their Conceptual Framework/Vision and Mission Philosophy: Leadership skills include ethical and critical decision making, mutually respectful communication and collaboration, care coordination, delegation, and conflict resolution. These skills are built on an awareness of complex systems and the impact of power, politics, policy, and regulatory guidelines on these systems. Professional nurses must have a solid understanding of the broader context of health care, including the organization and financing of patient care services and the impact of regulatory guidelines on practice and reimbursement. Professional nursing also requires knowledge of health care policy. Moreover, professional nurses practice at the microsystem level within a constantly changing health care system. Professional nurses apply quality improvement concepts to minimize risk of harm to patients and providers within a systems framework (Faculty Handbook, p. 2).

This particular southeastern university's school of nursing offers two clinical nursing leadership courses in the final semester. In addition to a five hour preceptorship course, NURS 4911: *Professional Nursing Leadership in Complex Systems* includes experiences in simulation and in the inpatient clinical settings; *Advanced Mock Hospital, SMART Training, and Leadership Clinical*.

*Advanced Mock Hospital* and *SMART* (Safety Management and Response Team) *Training* are simulated experiences where evidenced based practices are incorporated into scenarios. Students learn and demonstrate clinical reasoning, delegation, organization, and team response to critical situations. Guided reflection is utilized by faculty facilitators during debriefing which strengthen critical components of the experiences and encourage perceptive learning (Meakim et al, 2013; Aebersold, Tschannen, & Bathishl, 2011).

Leadership Clinical is direct inpatient clinical experience where emphasis is placed on developing organization, delegation, prioritization, and other leadership skills. This experience consists of four 12 hour clinical shifts where students rotate serving in a charge nurse and staff nurse position. They learn to provide care for and manage up to four patients by the end of the fourth shift. Students administer medications, complete assessments and treatments, document in the medical record, and are supervised by faculty.

Student perceptions of these three clinical experiences are positive and encouraging to the future of nursing and nursing education. Statements such as "I feel these three clinicals brought all of my learning together", "I feel like a real nurse now", and "These clinicals have definitely prepared me for preceptorship" are common themes. The purpose of this presentation will be to describe in detail each simulation and clinical activity and to ground the experiences based on evidenced based practice.

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## D 09 - Teaching Leadership in Nursing Education

### Empowering a Culture of Vulnerability Through Focused Nursing Education Leadership

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#### Abstract

Brown (2015) noted that, generally speaking, individuals' needs for cognitive certainty, accompanied by often-desperate, simultaneous needs to 'be right,' have resulted in widespread fear of personal vulnerability. In common parlance, vulnerability is seen as a relatively negative state, something to be "overcome" (deChesnay, 2005, p. xix). From a perspective that views vulnerability as 'susceptibility to harm' (Sellman, 2005; Mechanic & Tanner, 2007; deChesnay & Anderson, 2016), vulnerability becomes a negative circumstance, one that threatens possibility of attack or harm. In fact, within nursing, overcoming vulnerability is a focus for a number of nursing theories (Boyle, 2008; Smith & Liehr, 2008).

It can be readily argued, however, that vulnerability is not inherently negative; rather, vulnerability is neutral, reflecting merely "an interaction between the resources available to individuals and communities (including workplace communities) and the life challenges they face" (Mechanic & Tanner, 2007, p. 1220; parenthetical phrase added). Viewed from a point beyond the mantle of a positive/negative dichotomy, vulnerability can be understood to reflect a state of openness to environmental features, whether those features portend threat or opportunity (Brown, 2012). "All people are vulnerable," as Sellman (2005, p. 3) noted, because vulnerability is the essence of the human condition. Moreover, "being more-than-ordinarily vulnerable may also provide opportunities for more-than-ordinary flourishing" (Carel, 2009, p. 216).

The investigators present an evidence-based model of leadership that supports 'more-than-ordinary flourishing' that exploits the vulnerability of both students and faculty members. Abductively derived from metasyntheses of published literature and lived experiences, the model demonstrates the centrality of vulnerability to personal and professional growth in academic settings. Integrated within the model are notions from several theories that, when applied comprehensively, interact to guide nursing education program administrators toward openness for the betterment of all. Specifically, the model combines features of vulnerability, itself (Brown, 2015; Mechanic & Tanner, 2007), with concepts from Cross's (1981) model of adult learning, Meleis's (2010) theory of transitions, and Shelton's (2003) model of academic support. Implications for development of policy and for future research will be addressed.

The implementation of "new leadership" (Grossman & Valiga, 2017, p. vii) through the proposed model enables nurse educators and administrators to shift "the distribution of relative advantage and disadvantage" (Vladeck, 2007, p. 1231). The model undergirds success among education stakeholders, thereby strengthening the successes of the academic setting, itself. Reflecting findings of the literature they reviewed, the investigators argue that as it supports vulnerability, the model simultaneously supports authenticity and courage. As, through the model, students and faculty alike are empowered to embrace a sense of personal legitimacy (Brown, 2012, 2015), inspiring more-than-ordinary flourishing.

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## D 10 - Use of the QSEN Competencies

### Content Validation of a Quality and Safety Education for Nurses (QSEN)-Based Clinical Evaluation Instrument

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#### Abstract

The literature indicates that students view clinical performance evaluation as less objective than classroom evaluation and as such, it can serve as a source of contention between students and faculty. Evaluation of clinical competency in prelicensure nursing education is a high stakes assessment, therefore it requires the use of a valid method of measurement. This presentation will describe the development of a clinical evaluation instrument based on the Quality and Safety Education for Nurses (QSEN) competencies and the process of establishing content validation for its items using the content validity index. The QSEN competencies identify the knowledge, skills, and attitudes needed by nurses to meet the demands of the health care environment, emphasizing patient-centered care, collaboration with other members of the health care team, evidence-based practice, continuous quality improvement, safety, and the integrated use of informatics. Establishing content validation for a clinical evaluation instrument based on these competencies is essential because while many educators use QSEN as a framework for developing teaching strategies that integrate quality improvement and patient safety concepts into student learning, there is little evaluative data regarding the efficacy of this practice.

The QSEN-Based Clinical Evaluation Instrument was developed by the researcher to standardize and clarify expectations of clinical performance for medical-surgical nursing students. Once developed, six expert nurse educators were recruited as reviewers; three doctorally prepared and well versed in QSEN, one masters prepared with expertise in simulation, and two masters prepared adjunct faculty members that had no knowledge of QSEN but were aware of the concepts because they held full time practice positions in acute care centers. The six experts were ask to rate and provide comments to refine the items. Two rounds of reviews yielded a 42 item instrument where each item had a content validity index of .83 or higher indicating the item was content valid and appropriate for the final version of the clinical evaluation. The scale content validity index was computed using two methods; scale content validity index/universal agreement was 1.0; scale content validity index/average was .979. The high level of agreement among the 6 expert reviewers supports that the content is relevant and appropriate for inclusion in a QSEN-based clinical evaluation instrument designed to define and evaluate prelicensure student clinical performance.

Using the QSEN competencies as a framework to measure clinical performance evaluation provides a clear structure for objective analysis of student competency in the clinical setting and works to organize the expectations for clinical practice into coherent categories so that students can more accurately identify areas of strength and weakness. Despite the varying knowledge level of the QSEN competencies by the expert nurse educator reviewers, the high level of agreement for the relevance of the items suggest that the QSEN competencies provide a relevant framework for clinical practice evaluation and that the items included in the QSEN Based Clinical Evaluation Instrument provide valid measures for both contemporary nursing education and practice. Future work will include adapting and leveling this clinical evaluation for other clinical nursing courses and establishing content validation for those instruments as well.

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## D 10 - Use of the QSEN Competencies

### Using Technology and Innovative Strategies to Promote QSEN Competencies of Patient-Centered Care and Safety

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#### Abstract

**AIM-**To promote QSEN competencies associated with patient safety and patient-centered care using a case-study approach. **BACKGROUND-**Patient-centered care is an essential value in nursing, (Grilo, Santos, Rita & Gomes, 2014) but patient safety must always take precedence when nurses are making decisions (Edwards, 2013). When selecting student centered learning activities, it is important to consider learner characteristics which may impact learning. Generational influences and learning style preferences are two characteristics which may be an important consideration for educators (Nick, 2015). With this strategy, the author created a case study while also taking into consideration the learning needs of the nursing students by using technology and media. This case study was designed for courses which contained student learning outcomes related to legal and ethical aspects of nursing. One of the courses was an RN-BSN course, and all students enrolled in this course held active nursing licenses. The other course is a mental health course in which pre-licensure BS students were enrolled. The Quality and Safety Education for Nurses (QSEN) competencies of Safety and Patient-centered Care were used to define and measure student learning outcomes based on the learner targets of Knowledge, Skills, and Attitudes.

QSEN defines Patient-centered care as to: "Recognize the patient or designee as the source of control and full partner in providing compassionate and coordinated care based on respect for patient's preferences, values, and needs" (p. 1-2, QSEN.org, 2014). The demonstration of the application of knowledge can be assessed by the student responses when reflecting on patient/family/community preferences, values, coordination and integration of care. The student can also reflect on how to provide comfort and emotional support in a safe and ethical manner. The achievement of the skills required for a registered nurse also can be measured with the student reflections which consider patient values, preferences and expressed needs to other members of healthcare team. The assessment of the affective domain of learning (attitudes) is accomplished by providing case study examples which portray health care situations "through patients' eyes" and evaluating the student responses to the case study questions. Also, QSEN defines safety as such that it "Minimizes risk of harm to patients and providers through both system effectiveness and individual performance". The practical use of knowledge can be applied by students in this case study by reflecting on processes used in understanding causes of error and allocation of responsibility and accountability (cause and failure mode effects analysis). The evaluation of outcomes related to skills can be measured by identifying the efficient use of strategies to reduce the risk of harm to self or others. In this case study, the outcomes of QSEN attitudes can be quantified by the student's reflection on the value of vigilance and monitoring by patients, families, and other members of the health care team.

**METHOD-**A longitudinal, qualitative approach was used to evaluate student reflection using a pre and post-survey. The implementation of this teaching and learning strategy occurred in several courses, over several consecutive semesters. This case study provides a brief insight into a case scenario by having students observe scenes 18-20 in the film titled "The Notebook." The Notebook is a story about a married couple, who are very close to one another, and the wife has Alzheimer's Disease. The husband reads to his wife from a notebook as an effort to help her reorient her to reality. An ethical dilemma emerges within these scenes, and without further discussion, students are asked to reflect on their thoughts and attitudes relating to the how the nurse in the film chose to solve this ethical dilemma and complete a pre-survey. Students are then given a post-survey to complete by collaborating with their group members which guide them through concrete steps when facing an ethical dilemma.

**RESULTS-**The majority of students in the pre-survey stated they would solve the dilemma just as the nurse in the film. After reflection and group discussion, many of the students reported that the actions of the nurse could have legal and safety implications which were not considered and would choose alternative methods to solve the dilemma. In mid-semester (formative evaluation) and end-of-semester surveys, all students reported a high level of satisfaction with the learning activities and technology used for teaching and learning.

**CONCLUSION-**Millennial students who considered digital natives, appreciate the use of technology media and a collaborative approach to learning (Garwood, 2015) and this case study was useful in promoting the QSEN competencies of knowledge, skills, and attitudes which are related to safety and patient-centered care.

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## D 11 - Education Strategies

### Promoting Meaningful Learning: Concept Mapping Applied in Case Studies

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#### Abstract

In these days, nurses' abilities in high-level thinking and problem-solving are critically important because nurses are required to assess and quickly evaluate available data for evolving problems to provide quality nursing care to patients with the complex health problems (Simmons, 2010; Yoo & Park, 2014). This leads to requiring the higher cognitive ability to succeed the National Council Licensure Examination-Registered Nurse (NCLEX-RN) that embeds current nursing practice. Therefore, identifying problems, analyzing data and information, differentiating quality information from null information, and evaluating outcomes should be embedded in learning activities throughout the nursing curriculum (Russell, Geist, & Maffett, 2013). Traditional pedagogical methods, such as lectures and reading assignments, bring skepticism regarding its effectiveness in fostering analyzing and problem-solving skills of students (Russell et al., 2013). Also, current nursing students, mostly Generation Y and Z, have unique preferences and needs for learning. Nurse educators need to use effective educational strategies that are suitable for the current student populations and can promote students' higher cognitive ability required for nursing practice in the current healthcare environment and success on the NCLEX-RN examination.

A combined educational strategy of concept mapping and case studies can promote meaningful learning that associates with students' analyzing and problem-solving skills development. Meaningful learning theory developed by Ausubel (1968) explains that meaningful learning occurs when learners link new concepts to the existing knowledge in their cognitive structure that represents the residue of previous experiences. Concept mapping signifies "meaningful relationships between concepts in the form of propositions that are two or more concept labels linked by words in a semantic unit" (Novak & Gowin, 1984, p. 15), and learners also figure out misconceptions and missing connections between concepts that are needed to construct new meaning. Concept mapping can be an educational method developing problem-solving skills as well as a tool for representing problems by learners (Jonassen, 2004). In the process of concept mapping, possible solutions to a problem can be found by understanding underlying concepts and their meanings related to the problem. Also, associations and relationships between the concepts and with other concepts can be discovered to solve problems. Especially, when students work with others in creating concept mapping, students present the ideas to build a common understanding and interpret the ideas in collaboratively (Gao et al., 2007). Concept mapping applied in case studies provides a context to integrate concepts gained and focus on issues and problems associated with the cases (Huang, Chen, Yeh, & Chung, 2012). So, students can have a systematic approach to find solutions to the problems by identifying underlying relationships between factors and associating issues with theories.

Students' perceptions of learning promoted by concept mapping applied in case studies in comparison with that promoted by using case study alone were measured in a pre-nursing course. Forty-nine students were taught the concept mapping process including definition, purpose, layout, types of concept mapping, and how to develop a concept map were presented. The students were also given an example of a concept map and time to practice concept mapping. Then, the students had both learning activities of concept mapping applied in case studies and only case studies without the benefit of concept mapping. An instrument containing 15 questions was used to measure students' perceptions in understanding content, increase in skills, and integration of learning. This instrument was developed based on for this project based on the Student Assessment of their Learning Gains (Seymour, 1997), and its overall internal consistency was established by a Cronbach Alpha coefficient value at 0.94. The students' answers were given on a five-point Likert-type scale, and the answers were analyzed by using descriptive analysis. The data for the total of the survey items ( $N = 49$ ,  $M = 3.91$ ,  $SD = .86$ ) reveals that the participants felt that concept mapping applied in case studies more effectively promoted their learning that case studies alone. The survey data for each item depicts that the participants agreed that they gained a better understanding of how to use a critical approach to analyzing data and arguments in daily life ( $N = 49$ ,  $M = 4.08$ ,  $SD = .73$ ), felt they gained a better understanding of how studying nursing helps people address real world issues ( $N = 49$ ,  $M = 4.02$ ,  $SD = .83$ ), and gained better skills in working effectively with others ( $N = 49$ ,  $M = 4.10$ ,  $SD = .74$ ) through concept mapping as applied in the case studies as compared to having case studies only. The pedagogical application of concept mapping can extend beyond the generation of care plans that have been mostly implemented in nursing education. Through concept mapping applied in case studies, students can have social interaction with others and explore new ideas and related ideas. As they find solutions to problems, they expect consequences for the solutions, and it helps them to adjust the gap between the new ideas and existing ideas in their cognitive structure. Therefore, eventually, students can learn how to effectively work with others and analyze data, and they can construct new meaning for how nursing helps people address real world issues.

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## D 11 - Education Strategies

### Health as Expanding Consciousness: Patterns of Clinical Reasoning in Senior Baccalaureate Nursing Students

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#### Abstract

Clinical reasoning has been identified as a necessary skill for practice in nursing. Multiple studies suggest that a gap exists between the education of nurses and their ability to transition into practice. In addition to possessing necessary knowledge and skills specific to the discipline of nursing, nurses must possess clinical reasoning skills to think through a situation as the patient's condition changes. To make a clinical judgment, nurses use an analytical process that includes pattern recognition, an attribute of clinical reasoning. This analytical process of clinical reasoning is more developed in experienced nurses in contrast to novice nurses. Through the qualitative lens of the researcher, the purpose of this study was to describe the evolving pattern of clinical reasoning in senior baccalaureate nursing students as part of the decision-making process. A second purpose was to explore the meaning of clinical reasoning.

Newman's theory of Health as Expanding Consciousness served as the theoretical framework to study the phenomenon of clinical reasoning. Newman's Research as Praxis methodology was used to collect and analyze data. Individual interviews were conducted with seven participants. The researcher entered a dialectical approach to uncover patterns of clinical reasoning at important choice points in the participants' lives. Together with the participants, the researcher gained an understanding of how the participants made decisions through the clinical reasoning process.

Patterns of individual participants and across participants were examined to gain an understanding of the whole pattern of clinical reasoning. The patterns of relating, knowing, and decision-making emerged in the participants and contributed to the evolving pattern of clinical reasoning. The meaning of clinical reasoning for these participants was establishing a relationship with a patient to interact and connect with them. Through formulation of a connection and trusting relationship, participants gained information to make clinical decisions that facilitated a transformation. The evolving pattern of clinical reasoning was a maturing process over time as the participants gained insight and expanded consciousness through multiple experiences and interactions with members of the interdisciplinary team and the instructor.

Implications for nursing science and research include that pattern recognition by the participants in nurse-patient interaction substantiate empirical support for the Health as Expanding Consciousness theory. The findings broadened the theory to how students think in the clinical area. In both education and practice prolonged engagement facilitates nurse-patient interaction to learn patient patterns. Collaboration with members of the interdisciplinary team inspires the understanding of another's thinking process. A consistent clinical instructor with whom the participants engaged in a trusting interaction may facilitate a free exchange of thought that enhances decision-making. In practice, interaction between experience and novice nurse mentorship supports the development of clinical reasoning. In both education and practice, increase in complexity of assignments over time with choice points provide opportunities for students and novice nurses to make clinical decisions.

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## E 02 - Clinical Reasoning and Communication in Simulation

### Learning Experiences of Associate Degree in Nursing Students Using a Concept Map With Simulation

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#### Abstract

With the continuing gap in knowledge preparation and clinical nursing practice leading to errors in health care delivery, the nurse faculty remains challenged in executing innovative changes to the curriculum to improve and maintain quality and safe patient care. Graduate nurses have experienced a difficult transition as level-entry nurses to clinical practice. The use of simulation and other simulation-based experiences such as concept mapping continue to develop in nursing education. Research using the simulation with concept mapping has shown promising results in the baccalaureate nursing programs. However, the combined use of concept mapping and simulation is limited in the associate level of nursing programs. The aim of this qualitative single case study was to explore the learning experiences of seven nursing students enrolled in the beginning nursing course of a two-year program at a private college in the New England state. Study participants received a video PowerPoint presentation about creating concept maps using the nursing process with the reading assignments and information related to the simulation scenario before the actual simulation performance. In using a purposeful sampling method, data collection and content analysis originated from the study participants' responses to a field-tested interview protocol that served as a guide to guarantee coverage of all relevant topics reflective of the research questions (Castillo-Montoya, 2016). Two field nurse experts in simulation offered comments and suggestions to the interview questions to uncover the most information acquired to understand the individual stories (Jacob & Furgerson, 2012). The research questions focused on the learning perspectives of the value in using a concept map with simulation in developing the critical thinking and reasoning skills and the appropriateness of a teaching strategy to help translate the knowledge into the clinical practice. The techniques in qualitative research used include data saturation, member checking, and triangulation. Participants received the opportunity to review the responses before performing actual data contextualization and analysis (Houghton, Casey, Shaw, & Murphy, 2013). A between-method triangulation for data collection included the study participants' responses to the semi-structured open-ended interview questions and the concept map illustration with the corresponding explanation and reaction to the completed concept map (Delost & Nadder, 2014). In using an inductive approach to content data analysis, various themes and patterns emerged after achieving data saturation. Study findings revealed the feeling of uncertainty, confusion, and an overwhelming experience. However, the study participants thought the use of a concept map with simulation was beneficial in developing the essential nursing competencies such as the critical thinking and clinical reasoning skills to form appropriate clinical decisions if utilized in the first nursing course and consistently across the program. Moreover, as a metacognitive technique, concept mapping helped the study participants draw their understanding through a visual representation using hierarchies, labeling or drawing lines to show connectedness to communicate the relationships between concepts (Gerdeman, Lux, & Jacko, 2013; Jaafarpour, Aazami, & Mozafari, 2016). Study participants expressed the importance of knowing the facts, checking the information, reviewing the situation, figuring things out, and anticipating future events. The study participants acknowledged how the use of a concept map with simulation enhanced the learning style preferences either as a visual or kinesthetic learner. The visualization of the concept map helped the study participants to follow an order, focus, and organize their thoughts and actions in making decisions using the nursing process. The use of a concept map helped to break down broad concepts in a more concise way to minimize and avoid the overwhelming feeling. As kinesthetic learners, the study participants relied on their ability to perform the role of a nurse by feeling for the presence of pulses and listening for breath sounds displayed by the manikin. These learning activities provided meaningful experiences that the study participants can model in the next clinical rotation. Implications for nursing education based on the research findings contribute to an increased awareness of the nurse faculty on the benefits of utilizing a concept map with simulation as teaching strategies to help the students learn about the nursing practice. Nursing students need an early exposure, and consistent use of the learning strategies to gain more confidence and understanding to address the different learning styles. Consequently, the teaching practices contribute to the advancement of science in nursing education, improve the quality of instruction and faculty performance, and affect the student achievement of learning outcomes. The utilization of a concept map with simulation in the early part of the nursing program serves as a foundation for developing the critical thinking and clinical reasoning skills to make clinical decisions of a novice learner. A recommendation for future research is to broaden the understanding by following the student progress in the associate degree in nursing program. Another recommendation for future research is to acquire the learning perspectives of male nursing students in the associate degree in nursing programs and perform a comparative study with female nursing students.

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## E 02 - Clinical Reasoning and Communication in Simulation

### Undergraduate Nursing Student's Reflections on the Effectiveness of Communication Training During Simulation: Qualitative Analysis

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#### Abstract

**Background:** Nurses must be able to effectively communicate information to other members of the healthcare team. Between 33% and 72.6% of nurses' experience bullying in their work environment (Berry, Gillespie, Gates, & Schafer, 2012; Laschinger, Grau, Finegan, & Wilk, 2010). Bullying and incivility can negatively impact a nurses' ability to communicate vital information to other team members. The Joint Commission reports that a root cause of the majority of Sentinel Events involve communication (Commission, 2015). There have been several initiatives aimed at improving communication between healthcare team members, but these programs are aimed at practitioners, not students. Nursing students have limited opportunities to practice communication between healthcare providers. Students are often exposed to incivility and bullying in clinical settings, but often do not report or seek help in dealing with this challenges (Anthony, Yastik, MacDonald, & Marshall, 2014). Many schools of nursing teach students to report findings using SBAR and CUS from TeamSTEPPS™. However, these skills are not always reinforced in clinical situations. Even more difficult is the ability to use the communication skills that have been taught when faced with incivility or bullying.

Researchers have reported that when people are confronted with incivility or bullying the victim has an increase in anxiety (Einarsen, Hoel, Zapf, & Cooper, 2011). Nursing students are particularly vulnerable to increased levels of anxiety when faced with incivility or bullying. These negative behaviors can cause students to doubt their ability to function as a student nurse, decreasing their self-efficacy and damages the learning environment.

Nursing students that have the opportunity to practice skills in simulation have decreased anxiety and increased self-efficacy in those skills (Megel et al., 2012). This suggests that a simulation scenario where students can practice communication skills in dealing with incivility and bullying in the workplace could alleviate some anxiety and increase self-efficacy in their communication skills when exposed to these situations as a registered nurse.

**Methods:** Participants were recruited from undergraduate nursing students who are enrolled in a baccalaureate nursing program in the Southeastern United States. Institutional Review Board approval was obtained from the University. Subjects were a pre-test survey that included demographic information, the State Trait Anxiety Instrument, and the General Self Efficacy scale. All students completed an online module on how to communicate with difficult people prior to the simulation. Students completed a simulated nursing scenario that includes bullying behavior, followed by a debriefing session. Research participants will complete another survey, with the same tools, after the simulation activity. Research participants wrote a reflective journal describing their response to the simulation. The reflection journals were analyzed using content analysis (Vaismoradi, Turunen, & Bondas, 2013).

**Results:** Of the 47 students who participated in the simulation, 93.6 % also participated in the research project. The mean age of participants was 22.72 (SD 5.31), and the majority of students were female (95.3%). Only 61.4% reported that they were comfortable or somewhat comfortable addressing conflict in the demographic survey. Analysis of reflection journal revealed many student were confident in their ability to manage conflict prior to the simulation. However, upon reflection they reported that they 'froze' or 'hung up' when faced with conflict. One student said, "I calm up and get anxious...I need to learn to remain calm (to help my patient)". Most the participants felt stated that they had the tools that they need to address conflict, but were not able to utilize the tools in the moment. When faced with an abrupt provider some students found "I allowed the doctor to make me feel incompetent". Using the tools helped students be able to advocate, for their patient, guided them to be more assertive in a way that "allowed us to be heard when we need to be."

Many students reported they had greater confidence in their communication skills after the simulation, "more prepared to handle a difficult situation", "I will not always be treated with respect and that some people are not good communication but given skills, I can handle the situation and improve the outcomes", "I will not be afraid to call provider in the future".

**Conclusion:** Students have limited opportunities to report findings to health care providers. Using evidence based tools for communication like TeamSTEPPS™ SBAR, and CUS provides students with a framework to report vital information. Incorporating communication into simulation allows students to perfect these skills increasing their confidence, promoting advocacy for patients and increasing patient safety.

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## E 03 - Innovations in Teaching Simulation

### How the StrengthsFinder® Assessment Assists Faculty in Building Consensus to Achieve Consistency in Student Evaluation

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#### Abstract

Supported by recent findings from the National Council for State Boards of Nursing (NCSBN) study, (Hayden, Smiley, Alexander, Kardong-Edgren, & Jeffries, 2014), simulation is quickly developing into a core teaching strategy for nursing education. Evaluation of learning during simulation, an essential component in the NCSBN study, informed nurse educators about valid and reliable mechanisms to assess achievement and competency in practice. The growing interest in using simulation to evaluate student competency led the National League for Nursing (NLN) to conduct a four-year study to evaluate the process and feasibility of using mannequin-based high fidelity simulation for high stakes assessment in pre-licensure RN programs (Rizzolo, Kardong-Edgren, Oermann, & Jeffries, 2015). Achieving clarity about the specific behaviors students need to exhibit in order to demonstrate competency is paramount. Equally important is the training of evaluators to assure satisfactory intra/inter-rater reliability. Furthermore, it is vital that faculty are aware of their own strengths and biases as they embark on evaluating students in simulation, and other environments.

The aim of this study was to extend work begun by the NLN Project to Explore the Use of Simulation for High Stakes (Rizzolo, 2014) (hereafter called NLN High Stakes Project) to explore fair and balanced high-stakes evaluation of student nurse performance in a simulation. The focus of this study was on testing the impact of an evaluator training intervention on reliability of high-stakes assessment in simulation. Furthermore, the study sought to find out if increasing faculty self-awareness of their strengths and personality characteristics could improve inter/intra-rater reliability. A training intervention for faculty evaluators was developed based on best practices in simulation and evaluation as well as general education principles and previous work by the NLN and NCSBN.

In order to investigate if specific faculty personality characteristics are associated with evaluator performance, each participant completed the Clifton StrengthsFinder assessment tool (Rath, 2007). The Clifton StrengthsFinder tool is a web-based assessment of normal personality from the perspective of Positive Psychology. Positive Psychology includes dimensions of happiness and well-being by which individuals, groups, and organizations can flourish (Gable & Haidt, 2005). One characteristic of Positive Psychology is the identification of distinct talents or strengths and the maximization of these abilities. Positive Psychologist Don O. Clifton developed the concept of a strengths-based approach after conducting multiple research studies (Gallup Inc., Strengths, 2016; Gallup Strengths Center, 2017). The driving force behind Clifton's discovery was based on one question, "What would happen if we studied what was right with people versus what was wrong with people?" (Clifton & Nelson, 1992). The Clifton StrengthsFinder is a web-based assessment of normal personality from the perspective of Positive Psychology. The Clifton StrengthsFinder presents 177 items to the participant. Each item consists of a pair of potential self-descriptors, such as "I read instructions carefully" versus "I like to jump right into things." The participant is then asked to choose the descriptor that best describes them, and to identify the extent to which that chosen option is descriptive of the person. The participant is given 20 seconds to respond to a given pair of descriptors before the assessment automatically presents the next pair. This assessment helps identify areas where the person has the greatest potential for building strength. It measures recurring patterns of thought, feeling, and behavior (Rath, 2007).

The Clifton StrengthsFinder profile was de-identified for each participant in the study data, but participants were given access to their own profile results and were able to use the results to their own advantage in their personal and professional lives.

Clifton noticed commonalities amongst the thirty-four themes and clustered them into four domains: executing, influencing, relationship building, and strategic thinking (Rath & Conchie, 2008). The executing domain traits primarily highlight productivity and attention to detail, while influencing characteristics show persuasive tendencies. Relationship building focuses on relational collateral and the good of the organization, and strategic thinking centers on possibilities and options (Rath & Conchie, 2008).

This study was multi-site, and involved a mixed methods approach. The StrengthsFinder component of the study had both quantitative and qualitative survey questions. This presentation describes the results of one portion of a nationwide, experimental study that looked at factors affecting inter and intra-rater reliability among nursing faculty evaluating performance during simulation, specifically using the StrengthsFinder assessment to assist faculty in building consensus to achieve consistency in student evaluation. The findings from the StrengthsFinder component of this study suggest it is valuable for nursing faculty to be aware of their strengths when evaluating students. The results of this study will help inform best practices for faculty when evaluating students.

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## E 03 - Innovations in Teaching Simulation

### Learning How to Teach: Using Simulations to Prepare New Clinical Faculty

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#### Abstract

The dearth of nursing faculty is a prime factor in the ongoing shortage of registered nurses (AACN, 2015). Recruitment and retention of qualified individuals from diverse backgrounds to teach students in clinical settings is especially challenging (AACN, 2017). Educating practicing nurse experts about the complexity of the clinical academic environment requires a multifaceted approach (Hinderer, Jarosinski, Seldomridge, & Reid, 2016).

Simulation activities using high fidelity human patient simulators, standardized patient actors, or a combination of both have been used in the education of health care professionals (Sauter, 2014). Realistic situations are recreated to promote learning, while providing protection from real-life errors (Foronda, Liu, & Bauman, 2013). Skills acquisition and critical thinking can be refined as participants have opportunities to learn from their mistakes (Richardson et al., 2014). Simulated experiences offer rich educational opportunities for novice faculty as they learn how to be effective clinical teachers (Hunt, Curtis, & Gore, 2015).

The Eastern Shore Academy and Mentorship Initiative (ES-FAMI), a partnership of three nursing programs and three hospitals in rural Maryland, was designed to develop quality adjunct faculty to address regional needs for clinical teachers. With an emphasis on recruiting multiethnic, multicultural faculty, a 30 contact hour program was established to provide foundational knowledge about teaching/learning theory, structuring a clinical experience, and providing feedback on student written work and clinical performance. Participants also engaged in simulated teaching encounters to refine their skills as new faculty. Simulations were used in two ways. First, participants viewed and critiqued teaching encounters developed by ESFAMI program faculty. Next, participants engaged in encounters with “standardized students”, trained actors who depicted common student behaviors requiring feedback and correction that were video-recorded for review and critique. Standardized students were current nursing students recruited from partner schools as well as actors from community theater groups. All “standardized students” attended a training session to master three scripts: a late and unprepared student, a student persistently using a cell phone to text with friends during a clinical rotation, and a student experiencing a dramatic downturn in quality of clinical performance. Each academy participant was assigned to one of the three scenarios which were enacted and video-recorded while the others completed a different activity. After everyone had completed a simulation, the group gathered to watch and discuss each video. Debriefing focused on the variety of approaches, how they reflected principles of teaching, learning, and giving feedback, as well as strengths and areas for growth. Based on participant feedback, the simulation activities were expanded to assure that everyone experienced at least two encounters with discussion and debriefing between each round of encounters. Standardized students also provided comments on how each faculty member made them feel during the encounter as well as their assessment of the effectiveness of each teacher’s feedback.

Results: All participants completed the online Academy Experience Evaluation (AEE), a 13 multiple choice item instrument with a 5-point Likert scale (higher scores indicating greater satisfaction) and four additional open-ended questions. Responses on the AEE revealed an overall positive experience with the ES-FAMI program with mean scores on the multiple choice items ranging from 4.40(+.50) to 4.76(+.52). The highest scoring items on the AEE related to applicability of the modules to clinical faculty role and the quality of the simulation experiences in participants for the clinical faculty role. Data from the open-ended questions supported the effectiveness of simulations in facilitating learning, problem solving, and developing skills in giving feedback among novice nursing faculty.

Discussion/Conclusion: The use of simulated teaching encounters is an effective strategy to prepare new part-time faculty but is not without its challenges. These include the time-intensive nature of recruitment, training, and re-training the standardized students, the need for budgetary support to underwrite actor costs (\$16/hour), the availability of a dedicated simulation center with audio-video capture capabilities, and developing/refining the debriefing skills of the simulation facilitators. Nonetheless, the findings of this study have global implications for nursing education. Helping clinicians actualize the faculty role through the use of simulations in conjunction with a multi-modal educational experience, strengthens their transition from clinical practice to academia.

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## E 04 - Hygiene Practices in Healthcare Settings

### Results of an Educational Intervention and Barriers to Antimicrobial Stewardship in a Skilled Nursing Facility

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#### Abstract

This study was part of a quality improvement effort by a Skilled Nursing Facility (SNF) to develop and establish an antimicrobial stewardship program to comply with recently enacted California State Senate Bill 361 (SB 361), which went into effect January 1, 2017 (All Facilities Letter 15-30, 2015; Skilled nursing facilities, 2015). In addition, this project provided a research opportunity for a doctoral nursing student with an interest in and passion for appropriate use of antimicrobials in nursing homes. This study is also among the very first, if not the first, to examine the impact of an educational intervention to licensed nurses on antimicrobial stewardship in a nursing home and to differentiate the licensed nurses.

The researcher defined antimicrobial stewardship as a set of activities and commitments by the community or, in this case, a facility to protect the use of antimicrobials in order to ensure appropriate and optimal treatment of infections at the same time reducing the chance of resistant organisms and other adverse reactions.

The researcher utilized three methods of study: 1) an educational intervention presented to licensed nurses in October 2016; 2) a post-educational intervention Nurse Survey, which was collected in November and December 2016; and 3) a retrospective pre- and post-educational intervention medical records audit in September and November 2016 of residents reported as having an actual or potential infection. The educational intervention to licensed nurses consisted of information on SB 361, the definition of and need for antimicrobial stewardship, use of the McGeer-Stone Criteria, and an infection decision algorithm. The medical records audit measured antimicrobial use and adherence to standardized infection surveillance criteria, specifically, the McGeer-Stone Criteria.

The facility contained two nursing care areas: long-term units (LTUs) providing custodial care for elderly residents and staffed largely by Licensed Vocational Nurses (LVNs); and short-term units (STUs) providing post-acute rehabilitation for adults and staffed largely by Registered Nurses (RNs). This division enabled easy differentiation of licensed nurses and the impact of the educational intervention on adherence to infection criteria for the initiation of antimicrobial use. While there was a large increase in adherence to standardized infection criteria post-educational intervention, especially in the LVN staffed LTUs, this change was not statistically significant. However, a significant change ( $p=0.007$ ) was noted in adherence to criteria by Nurse Practitioners (NPs) in the LTUs. The increase in adherence to criteria noted in the LTUs was due to a change in the prescribing behavior of the NPs and that NPs did not have prescribing capability in the STUs. NPs received the educational intervention, while other facility prescribers did not.

In conclusion, while educational efforts on antimicrobial stewardship in SNFs should include all licensed nurses and prescribers, concentrating such efforts on NPs and allowing them to practice in all areas of a SNF, may provide the greatest impact on antimicrobial stewardship programs in these facilities. It is also recommended that education of licensed nurses in antimicrobial stewardship begin in the nursing school curriculum.

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## E 05 - Innovations in Nursing Education

### Redesigning the Baccalaureate Curriculum to Address Population Health Using Simulation

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#### Abstract

**Background:** Today's healthcare environment is largely focused on illness treatment in an aging population with increasingly complex health needs resulting in rising healthcare costs. To promote health and well-being, there must be a shift toward improving population health outcomes, enhancing the patient care experience, and reducing per capita costs (Institute for Healthcare Improvement, 2017). To address social determinants and health disparities in populations, nurses require sophisticated knowledge and skills in cultural competence, health promotion, self-management of chronic illnesses, care coordination, data translation, and use of technology (Cronenwett et al., 2007; Institute of Medicine, 2010; Interprofessional Education Collaborative Expert Panel, 2016).

**Literature Review:** There is a critical need to redesign baccalaureate curricula to promote better integration and attainment of essential population health competencies (American Association of Colleges of Nursing, 2008; Benner, Sutphen, Leonard, & Day, 2010; Cronenwett et al., 2007; Institute of Medicine, 2000, 2003; Interprofessional Education Collaborative Expert Panel, 2016). Simulation based learning provides realistic clinical experiences that promote competencies and readiness for professional nursing practice (Hayden, Smiley, Alexander, Kardong-Edgren, & Jeffries, 2014). Flipped classroom assignments, online activities, and academic-practice partnerships have been reported to increase student population health learning (Ezeonwu, Berkowitz, & Vlasses, 2014; Randolph, Evans, & Bacon, 2016; Simpson & Richards, 2015). Research is lacking regarding effective strategies to promote baccalaureate population health competencies across the curriculum.

**Purpose:** The study aim was to evaluate use of high-fidelity patient simulation to redesign our baccalaureate nursing curriculum to address population health through an academic-practice partnership.

**Method:** *Theoretical framework.* Using the NLN Jeffries Simulation Theory as a framework (Jeffries, 2016), our academic-practice partner team developed two patient cases using de-identified patient data that unfolded over the adult health I/II, pediatrics, and community courses: 1) an 82-year-old African American female with heart failure, diabetes, and 2) a 9-year-old Hispanic Latino boy with chronic asthma. Multiple, innovative learning strategies comprised of five videotaped simulated patient encounters (VSE), five high-fidelity simulation (HFS) experiences, five faculty/student guides, flipped classroom activities, and population health resources were developed and implemented in didactic and simulation settings. Six population health competency based learning outcomes were addressed: delivers culturally competent care, advances self-management of chronic illnesses, facilitates transitions in care, promotes culture of health, collects meaningful use data to address care gaps, and utilizes an electronic health record for assessment.

**Sample.** A pretest/posttest, descriptive, electronic survey design was used to collect data from 585 baccalaureate students and 78 faculty on three statewide campuses at a large US public university in fall 2016 and spring 2017.

**Outcomes measures.** Investigator developed evaluation surveys were used by students and faculty to assess student attainment of population health competencies using a 4-point Likert scale. Qualitative themes were extracted from additional comments. Cultural competence was assessed using the Inventory for Assessing the Process of Cultural Competence Among Healthcare Professions-Student Version (IAPCC-SV<sup>®</sup>) (Campinha-Bacote, 2007).

**Procedure.** University institutional review board exemption approval and informed consent were obtained. Didactic simulation activities involved a student guide pre-assignment (1-2 hrs) with a VSE (10-15 mins), activities (e.g., care plan), and resources. The faculty guide included the student assignments and resources along with a debriefing activity for a class VSE discussion (1.25-1.5 hours). The HFS experience with manikins or standardized patients occurred approximately one week later, and included: student guide pre-assignment (1-2 hrs) activities (e.g., online modules), and resources; and dedicated simulation team and clinical faculty guides for the pre-briefing (1 hour), simulation (2 hours), and debriefing (1 hour) activities. Students and faculty were allotted instructional time to complete the electronic surveys.

**Results: Sample.** There was a 100% student ( $n = 585$ ) and 87% faculty ( $n = 68$ ) response rate. Students were ethnically diverse (48%), predominantly female (81%), and mostly between 20-25 years-old (61% fall 2016, 68% spring 2017). Faculty were primarily white (59%), Asian (13%), Black/African American (12%), female (96%), and over age 40 (55%).

**Population health competencies.** Students overwhelmingly agreed/strongly agreed (90% to 100%) that they met the population health competencies for all VSE and HFS activities across all courses. Faculty also agreed/strongly agreed (89% to 100%) that student groups met four to six population health competencies for the VSE and HFS activities across all courses, with slightly less agreement/strong agreement (75% to 80%) that students improved outcomes through culturally competent care and facilitating connections to community resources for the patient in the unfolding pediatrics case. No difference in population health competencies was noted between VSE and HFS activity learning outcomes across courses.

**Cultural competence.** Reliabilities for the IAPCC-SV<sup>®</sup> showed excellent to good internal consistency (.93 overall, subscales .67 to .87). Students' cultural competence increased in both fall 2016 [mean diff ( $SD$ ) = 1.25 (7.62),  $t$  ( $df$ ) = 2.996 (335),  $p = .003$ ], and spring 2017 [mean diff ( $SD$ ) = 1.64 (8.11),  $t$  ( $df$ ) = 4.577 (510),  $p = .000$ ]. ANOVA results showed no differences in outcomes based on ethnicity, race, gender, or course enrollment.



*Student and faculty qualitative feedback.* Four themes consistent with quantitative findings were revealed: student population health learning outcomes achievement, active/engaging collaborative learning experiences, skills gained, and faculty facilitator characteristics.

**Discussion:** Didactic VSE discussions and HFS experiences with flipped classroom pre-assignments and structured debriefing were equally effective in advancing student population health competencies. Rigorous, systematic study design enabled successful, large scale integration of population health competencies across the curriculum on all campuses. Benefits to students and faculty included: new opportunities to engage in culturally competent care in multiple settings across the continuum, collection of electronic health information to avoid care gaps, electronic health record documentation, increased understanding of big data, and a shift toward a population health focus. The clinical partner stated the realistic clinical experiences were enriched through our academic-clinical partnership and provided support to new nurses for a smoother transition to practice. Rapid cycle quality improvements were made to improve communication with students and faculty, and to address internal and external challenges (e.g., survey software and new email systems glitches).

**Conclusions:** Students and faculty perceived simulation based learning strategies to be effective in advancing baccalaureate students' knowledge and skills to address population health. A strong project design and widespread support led to successful student outcomes. Enhanced academic-practice partnerships aimed at ongoing, collaborative efforts to integrate population health competencies into baccalaureate curricula and future research on actual patient outcomes are needed.

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## E 05 - Innovations in Nursing Education

### Impact of Peer-Assisted Learning With Standardized Patients in an Undergraduate Nursing Course

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#### Abstract

The purpose of this research project was to investigate peer-assisted learning (PAL) with two levels of pre-licensure nursing students. Through PAL, students at different levels are actively involved in the teaching/learning process (Williams & Reddy, 2016). This collaborative educational strategy provides positive benefits for both the student learners and student teachers. Because nurses provide patient education and precept nurses and nursing students, teaching is an integral part of their professional role. Therefore, educational programs should encourage this innovative teaching strategy (Irvine, Williams, & McKenna, 2017).

A subset of PAL is near-peer teaching, in which students who act as teachers have at least one additional year of experience than learners. According to McKenna and Williams (2017), near-peer learning allowed student learners to identify with their peer teachers and better understand the course expectations, alleviated students' anxiety about clinical rotations, and helped them learn to manage difficult situations. Studies similar to this have been conducted with medical students. The benefits to the student learners included receiving helpful feedback on clinical skills and having a supportive learning environment. The advantages for the student teachers included developing their teaching skills and refining their own knowledge and clinical competence (Khaw & Raw, 2016; deMenezes & Premnath, 2016). Students were also introduced to role models through the near-peer teaching process, and the student teachers voiced a greater interest in being involved with medical education after the experience (Nelson et al., 2013). Brauer, Axelson, Emrich, Rowat, and Stafford (2014) found that a near-peer shadowing program alleviated students' anxiety about the transition from the classroom setting to clinical rotations. In addition to improving clinical skills, near-peer teaching assisted the learners to develop (effective) communication skills (Aba Alkhail, 2015). In near-peer education with junior medical residents and third-year medical students, the junior residents felt that the experience helped them to become more aware of their own limitations, encouraged collaboration, and helped to stress the importance of using a systematic approach when evaluating sick patients (Antonelou, Krishnamoorthy, Walker, & Murch, 2014).

In undergraduate nursing programs, PAL has been incorporated through the use of standardized patients. By utilizing standardized patient simulation experiences, students are exposed to real-life scenarios within the confines of a nonthreatening environment. They are also a realistic way to evaluate the health assessment skills of nursing students (Sarmasoglu, Dinc, & Elcin, 2016). In addition, the debriefing process that occurs between the student teacher and student learner is an invaluable tool to provide feedback to the student learners. Sideras et al. (2013) also found that students' communication skills were enhanced through the use of standardized patients. Students provided positive feedback about standardized patient experiences in which higher-level nursing students served the role of patients for first-year nursing students (Owen & Ward-Smith, 2014; Bryant 2017).

In this study, PAL was used among the first semester junior and second semester junior undergraduate nursing students in a rural, bachelor of science in nursing program. Eight second-semester junior students who were enrolled in the Adult Health I course were recruited to be standardized patients and student teachers for the 62 first semester junior Health Assessment students, who were in the role of student learners. The first semester students randomly received one of six focused health assessment scenarios, and the second semester junior students provided feedback to students on their assessment skills after the conclusion of each standardized patient simulation. The research study was approved by the institution's Institutional Review Board. Written informed consent was obtained prior to the simulation experience. The students completed an anonymous, online survey immediately following the standardized patient experience and then six weeks later. The survey was adapted from the instrument utilized in a similar, prior study and used with permission from the authors (Owen & Ward-Smith, 2014).

The participants in this study consisted of first semester junior (N=62) and second semester junior (N=8) undergraduate nursing students. Of the 70 prelicensure students who participated in the simulation experience, 100% completed the post-test survey (PT1) immediately following the experience, and 56 students (80%) completed the post-test survey administered six weeks later (PT2). Students' opinions and perceptions of the simulation experience were measured on a Likert scale, with 1 being strongly agree and 5 being strongly disagree. The total median score for the ten perception questions was 2.3 at immediate post-test and 2.2 at six-weeks after the simulation experience, corresponding to a consistent level of agreement from immediate post-test to the six-week post-test. Participants were asked to provide qualitative feedback about their experience in both the immediate post-test and the six-week post-test after the simulation experience. General themes in responses included that working with nursing students at a different level in the program was helpful. Some participants reported feeling "intimidated" and "nervous" but felt that it was a helpful experience. Participants reported the "most useful" aspect of the experience was the feedback provided to by the second semester students. The predominate theme in responses regarding the "least useful" aspect of the experience was the time allowed for the scenario (8 minutes) and the limitation of only one standardized patient experience per semester. Many participants recommended this experience to all nursing students.

Our study has demonstrated benefits of PAL for student teachers and student learners alike. Peer-assisted learning (PAL) is a growing area of research in nursing education. Future PAL studies could research the experiences of students with at least one year between their program levels and could be conducted over a longer time frame. In addition, it may be helpful to have students participate in multiple standardized patient scenarios during a semester. In conclusion, intraprofessional simulation is an innovative teaching strategy which offers beneficial learning opportunities for all students involved.

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## E 06 - Nurse Faculty Caring Behaviors

### Utilizing Collaborative Testing to Engage Nursing Students, Improve Academic Achievement, and Decrease Attrition

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#### Abstract

**Background:** Research indicates that approximately 20% to 42% of students leave nursing programs after the first year. To address this issue, it has been recommended that nurse educators utilize new approaches to engage students in the classroom. However, studies show nursing lacks evidence that one method of teaching is more effective than another or that there is a relationship between learning outcomes and teaching strategies. **Purpose:** The purpose of this research was to determine if students who participate in a collaborative teaching process in the classroom have decreased attrition and increased levels of academic achievement and engagement than do students who do not participate in a collaborative teaching process. **Theoretical Framework:** The educational theory used to guide this investigation was Bandura's social cognitive theory, which combines both behavioral and cognitive orientations. **Method:** A quasi-experimental, after-only, nonequivalent control group design was used. The sample size consisted of 153 students. Students in both the control and experimental groups were enrolled in either a fundamental or a behavioral-health nursing course. Health Education Systems Incorporated–Specialty Exams were utilized to measure academic achievement. A Survey of Student Engagement was used to measure student engagement. **Results:** No statistical significance was found for any of the three research questions. Odds ratios indicated traditional students in the experimental group were five times more likely to pass the fundamentals Health Education Systems Incorporated–Specialty Exam (HESI-SE) than traditional students in the control group. Non-traditional students in either the control or experimental groups were thirteen times more likely to pass the HESI-SE with a score of 850 or higher. Seven students passed the fundamentals nursing course because of points obtained during the collaborative testing process. The literature indicates nursing students, who pass nursing courses because of points awarded in the collaborative testing process, complete the nursing program and pass the National Council Licensure Examination (NCLEX)-RN on their first attempt. Findings indicated, when controlling for the seven students that passed the fundamentals nursing course because of the collaborative testing process, the passage rate of traditional age students increased by 10% and non-traditional students by 24%. The Survey of Student Engagement results remained flat. **Conclusions:** Further research, using larger sample sizes, is needed to determine the effect of collaborative testing and its impact on student engagement in both the traditional and non-traditional nursing students. A tool that measures student engagement specific to the classroom also needs to be developed. A study is being developed to determine the outcome of the seven students that passed the fundamentals course because of the use of the collaborative testing process.

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## E 06 - Nurse Faculty Caring Behaviors

### Nursing Faculty Caring Behaviors: Perceptions of Students and Faculty

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#### Abstract

A Health Sciences College in Southwest Virginia conducts exit surveys for all graduating students. The spring 2015 survey revealed many positive results and comments; however, there were some concerning results regarding faculty caring behaviors from nursing program graduates. This descriptive, exploratory, comparative study titled Nursing Faculty Caring Behaviors: Perceptions of Students and Faculty resulted in findings that offer further insight into student and faculty perceptions of caring behaviors. The study also identified specific behaviors that demonstrate the presence or absence of faculty caring. Participation was invited from full time, part-time, and adjunct nursing faculty and students enrolled in the traditional BSN, accelerated BSN, RN-BSN, and graduate nursing programs. The review of the literature on the phenomena of caring faculty behaviors revealed that there have been many studies conducted in the past 20 years on the topic of student perceptions of faculty caring. However, very few studies that evaluate faculty self-assessment of their caring behaviors have been published. Wade and Kasper's (2006) Nursing Students' Perception of Instructor Caring (NSPIC) semantic differential scale instrument was used to measure faculty caring behaviors. Dr. Jean Watson, world renowned nursing theorist, served as a consultant to this research team. Study results revealed when comparing nursing faculty self-perception to nursing faculty perceptions of other nursing faculty (N=20), there were statistically significant differences in 19/30 questions. The phenomenon identified as illusory superiority cognitive bias was present and is defined as when individuals overestimate their own qualities and abilities relative to others. According to social sciences research, this is a common and expected finding and no interventions are recommended. Independent T-test comparison between nursing faculty perception of other nursing faculty (N=20) and student perceptions of nursing faculty (N=28) 27/30 items revealed 3 significant findings: both entities care about each student as a person,  $p=.015$ , inappropriately disclose personal information about students to others,  $p=.03$  and make students nervous in the clinical setting  $p=.014$ . Results were presented at an annual faculty meeting. The intervention to be implemented is first class meeting and/or course announcement talking points that are focused on identified caring behaviors. Further study is encouraged with a broader population and with more innovative interventions. A collaborative study with multiple schools is being considered. The findings from this study will allow further review of this tool and will provide additional insight into faculty caring behaviors and practices that support student success. This study's' results offer new information that is not currently in the literature.

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## E 07 - Curriculum Design

### Improved Student Outcomes and Faculty Workload Allocations Through Gateway Course Redesign

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#### Abstract

Many students do not see a direct relationship of topics covered in a foundational course to clinical nursing practice. As novice learners, the value of mastering foundational concepts is not always recognized. Often, nursing students in their first semester of required nursing courses are more interested in 'hands-on' learning than mastering fundamental concepts. Undesirable subsequent outcomes include minimal student engagement in course content and student difficulty in the application of previously learned content in subsequent courses. As the nursing faculty shortage is worsening, workload of nursing faculty must be allocated to areas requiring skills and expertise of faculty. The foundational course in one institution required overload of faculty in a face-to-face work-intensive, non-uniform delivery of course content. To address the challenges of quality student learning, as well as, workload challenges escalated from the nursing faculty shortage for this program, faculty determined a course redesign should be explored. The Replacement Model was the redesign approach chosen for this gateway course in an undergraduate baccalaureate program. The Replacement Model reduces the number of face-to-face class meetings with online and interactive learning activities and makes significant changes in remaining face-to-face class meetings. Elements incorporated into the Replacement Model for redesign included active learning, computer-based learning resources, mastery learning in module format, and alternative staffing with undergraduate learning assistants (senior nursing students) who participated in hands-on class activities, scoring of student assignments, and leading supplemental instruction sessions. With greater flexibility in attending to course activities and appropriately matching student learning outcomes with various learning strategies, course faculty anticipated the course to be delivered more efficiently and students would be more actively engaged in their learning.

After IRB approval was attained, a pilot study was conducted. Two sections of 24 students (48 in total) received course content utilizing traditional face-to-face class meetings three times per week and were evaluated with three exams and one paper. Fifty students in one redesigned section received course content utilizing a hybrid format. This section met face-to-face a total of 11 times throughout the semester. Content modules were developed through a course management system and enhanced through video-capture technology for delivery of faculty-developed supplemental highlights of content, study guides, discussions, journals, exercises, Wiki tools for collaborative work, case studies, and quizzes. The three exams in each course were identical. The same faculty taught in all three sections.

Evaluation of the pilot study was completed in several ways. Course evaluations helped capture subjective student comments while interviews with undergraduate learning assistants helped identify strengths of alternative staffing for specific course activities. All exam and final course grades for the traditional and hybrid sections were compared at the conclusion of the semester using t-tests for equality of means. There was no statistical difference found. Student testing of American Psychological Association (APA) citation and dosage calculation content were measured at the end of the pilot semester and at the end of the semester prior to student graduation. This was done in an effort to evaluate if instructional delivery format impacted student retainment of curricular content more specific to this foundational course. Longitudinal data was grouped into original hybrid versus face-to-face sections. T-test for equality of means indicated there was no statistical difference in longitudinal retainment of these course contexts.

In summary, there were no significant differences in student attainment of course objectives. The use of undergraduate learning assistants as a means for alternative staffing proved effective and allowed senior students an opportunity to explore their interests in a career in academia. Students were actively engaged in their learning and use of hybrid delivery of content for a foundational 'gateway' nursing course was determined to be successful. Finally, use of this redesign model resulted in a 16.5% reduction in staffing costs that allowed for greater faculty workload to be utilized in applied settings.

Faculty evaluation of this course redesign pilot led to the addition of three scheduled face-to-face class meetings for subsequent course offerings (care planning application and communication scenarios) and the elimination of two discussion questions. Supplemental instruction sessions were changed to Friday afternoons when students generally do not have scheduled classes. Direct changes driven from student feedback includes the development of an orientation module and resource manual for future undergraduate learning assistants and concrete assignment of point percentages for all student learning activities rather than use of satisfactory/unsatisfactory ratings.

This course redesign has been fully implemented and there are now two hybrid sections for each course offering.

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## E 07 - Curriculum Design

### The Agile Process: A Multidiscipline Team Method of Course Development

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#### Abstract

A competency based online program was looking for a more efficient method of course development. Course development was typically done with one subject matter expert and an instructional designer in isolation. This often resulted in redundancy of some content while other competencies were under or unrepresented in a process that was laborious and at times, tedious. The Agile Process was a method of software development that allows teams to deal with uncertainty in a process of high quality products by breaking tasks into small incremental pieces as opposed to delivering the entire project at one time. Adopting the Agile Process helped develop a team of subject matter experts, instructional designers, instructional architects, media specialists, editors, and various leadership representatives, and an overall project manager to revise and develop competency based courses for online programs. The story of the decision to adopt the process that no one was familiar with required a leap of faith and as the team worked together, the process was amended and modified to improve quality, speed, and results. As selected courses were developed or revised, the process changes allowed the team to work smarter and not harder. The process involved interviewing, brainstorming, literature review for the best evidence, and frequent meetings of various groups to break up the work into realistic pieces in order to ensure the development of high quality competency based offerings. Everyone on the team knew where each course was in the development process and issues were discussed in daily meetings as needed. While there were occasional disagreements, misunderstandings, and missteps, the team was able to determine when to maintain a process and when to change it. Following course release monitoring by the team the course in real time helped to identify and fix issues for faculty and learners. These just in time changes helped improve learner and faculty satisfaction with the course. In reviewing end of course evaluations by faculty and learners, the process improved the speed of revision as well as the quality of the online competency based courses.

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## E 08 - Student Engagement and Perception Regarding Mental Health

### Creating Student Engagement in Psychiatric Nursing Education for the Next Generation

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#### Abstract

The purpose of this presentation is to discuss student learning styles and student outcomes in a psychiatric mental health nursing course as measured by overall grade point average (GPA), class grade, and student satisfaction survey results. The students were given a peer reviewed questionnaire at the end of the course to elicit information regarding learning styles, course satisfaction, and demographic data. This is important information for educators to determine how to best engage the next generation of students in the learning environment.

Albert Bandura developed the Social Learning Theory, which suggests that people learn from one another (Tomey & Alligood, 2002). Today the Social Learning Theory is referred to as the Social Cognitive Theory. Social Cognitive Theory is based on observational learning, self-evaluation and self-efficacy, (Bandura, 1986, Tomey & Alligood, 2002; Clark, 2008). Bandura suggests that the person's nature explains learning where behavior, personal factors and environmental factors all play a key role (Bandura, 1986). Social Cognitive Theory has been shown to have positive educational benefits in the areas of developing attitudes, beliefs, and performance skills (Bandura, 1969). Several advantages of Social Cognitive Theory have been noted, which include the focus on social aspects of learning and interaction of the environment and learner (Callery, 1990).

It is important for nurse educators to develop learning environments that promote self-beliefs, or self-efficacy, in nursing students (Clark, 2008). Self-efficacy is important in vicarious learning experiences, especially in collaborative, or group, learning experiences versus distance education learning experiences. Self-efficacy is also a major proponent in Social Cognitive Theory. Self-efficacy is the belief in the "capabilities to exercise control over [the] level of functioning and environmental demands" (Bandura, Barbarenelli, Caprara, & Pastorelli, 1996, p. 1206). Bandura (1997) also defined efficacy as "beliefs in one's capabilities to organize and execute the course action required to produce given attainments" (p. 3). Self-efficacy shapes a person during childhood and an increased belief in efficacy leads to an increased choice in life as well as an increase in educational preparation and persistence. Bandura et al. (1996) surveyed 279 children ages 11-14, parents and teachers on social, academic and self-regulatory behaviors and found that the child's overall well-being and academic efficacy were linked together. Hodges (2008) states that "self-efficacy beliefs are context-specific and must be considered carefully as situations change.

The concepts of the Adult Learning Theory include the need to know, learner's self-concept, role of the learners' experiences, readiness to learn, orientation to learning, and student motivation (Knowles, 2011; Lehmann & Chamberlin, 2009). It is interesting to note that the Adult Learning Theory has viable applications to the Millennial student, since an adult is someone considered to be older than eighteen.

Members of Generation X are comprised of those generally born between the years 1960 and 1980 (Lohrmann, 2011; Niles, 2011; Weston, 2010). Generation X members tend to be independent, energetic, assertive, resourceful, and less loyal (Lavoie-Tremblay et al., 2010; Niles, 2011; Weston, 2006). Generation X grew up mostly in unstable family environments where parents were not around, but technology was abundant with microwaves, computers, and video games (Niles, 2011; Weston, 2010).

Millennials have a new set of characteristics different from previous generations due to varying life events as well as growing up in difficult and changing times. This generation is more racially and ethnically diverse as well as less religious than previous generations (Weston, 2010).

Millennials believe that their generation is special and unique, which is how their parents brought them up. There are seven main characteristics of the Millennial generation. Howe and Strauss (2000) state that Millennials are special, sheltered, confident, conventional, team-oriented, achieving, and pressured. This generation relies on technology as a way to make life easier while remaining connected with friends and family (Bennett, Maton, & Kervin, 2008; Bonaduce & Quigley, 2010; Pardue & Morgan, 2008). Technology immersion of the Millennials may be the most important aspect for an educator to consider when trying to meet the educational needs of this generation (Bennett et al., 2008).

According to Silverman (2006), there are three main types of learning style modalities: auditory-sequential, visual-spatial, and tactile-kinesthetic. Auditory-sequential learners use a step-wise process and learn from hearing material and being able to discuss the subject matter (2006). Visual-spatial learning takes place "all at once" and relies on images (2006, p. 71). The learning modality where the student uses touch and hands on demonstration is known as tactile-kinesthetic learning (2006). Learning styles, specifically styles where an individual can assimilate information learned, are important predictors of performance (Manochehri & Young, 2006).

It is important for nurse educators to take into account all the different aspects and individuality each student brings to the classroom. Educators should incorporate a variety of learning activities to keep all students engaged in the learning environment (Lohrmann, 2011; Tanner 2006). The Partnership for 21<sup>st</sup> Century Skills (2009) states that it is important for students to learn the essential skills, such as critical thinking, problem solving, communication, and collaboration, in order to succeed in the world. Educators can teach these essential skills through a variety of means. "Learning is mainly an active and self-regulatory effort in the learning environment" which fits into educating Millennials (Korhonen, 2004, p. 109). Educators must take into account the different and unique life experiences of all students in order to teach them effectively. Instructors must understand the students they are teaching and adjust andragogies accordingly.

There is research that suggests Millennials must be taught differently from previous generations (Bennett et al., 2008; McDermott, 2011; McWilliam, 2008; Reilly, 2012). This is a generation that likes a structured learning environment that is objective driven (Wilson & Gerber, 2008). Students also only want to be taught what they need to know in an environment that is conducive to their learning style (Skiba, 2005). There has been noted to be a movement from the "sage on the stage" to the "guide on the side" by instructors teaching this generation of students (Barnes et al., 2007; Bonaduce & Quigley, 2010; McWilliam, 2008; Skiba, 2005). The "old way" of didactic teaching with an instructor delivering a power point presentation in front of the classroom is no longer beneficial to student education (Bennett et al., 2008). Instructors are discovering that lectures are no more than 15 to 20 minutes in duration before the students are broken up into small groups for discussion and teamwork building exercises (Carlson, 2005). Some of these techniques can be carried over into the clinical setting with the use of simulation and standardized patients. McWilliam (2008) even goes on to state that the instructor becomes the "meddler in the middle" for the Millennial generation. The meddler in the middle notion involves the student and instructor as co-creators of the learning environment, where both parties share input and feedback.

An independent samples t-test was employed to identify performance differences between students in face-to-face interaction and distance education sections. A t-test was also performed to assess differences in course grades and GPAs of students who were in their preferred setting and those who were not. Type I errors were controlled for by using SPSS software.

A quantitative analysis regarding satisfaction was performed with a series of questions on a researcher-developed survey. For categorical responses on the questionnaire, such as age, gender, ethnicity, learning styles, and satisfaction counts and percentages are presented. All tests were conducted at a significance level of 0.05.

There were 110 participants who were eligible and agreed to participate in the study. There were 63 participants in the distance education group and 47 participants in the face-to-face interaction group. The majority of participants were 18 to 29 years of age (59.1%, n=65), female (84.5%, n=93), and Caucasian (79.1%, n=87). The age distribution of the remainder of the participants was as follows; 23.6% (n=126) categorized themselves as between the ages of 30 to 39, 17.3% (n=19) categorized themselves as between the ages of 40-59. The majority of the participants, 42.7%, (n=47) categorized themselves as visual and auditory learners, 32.7% (n=36) categorized themselves as tactile and visual learners, 24.5% (n=27) categorized themselves as other style learners.

Nurse educators know that engaging the learner is imperative to preparing students who will be critical thinkers. Research on the practice of active learning strategies suggests that when students are actively involved in thinking about what they do there are improved student outcomes (Braxton, Milem, & Sullivan, 2000). The use of active learning strategies in learning activities has demonstrated positive effects on problem solving, critical thinking, and persistence in college students (Braxton et al., 2000; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2007). One way to develop effective teaching strategies is to better understand the background as well as current needs of nursing students. Student engagement of this new generation of students will help improve student outcomes.

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## E 08 - Student Engagement and Perception Regarding Mental Health

### Students' Cultural Beliefs Toward Mental Health

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#### Abstract

Mental health issues are common. The most recent national survey (Australian Bureau of Statistics, 2007) indicates that, of Australians aged 16-85, one in five (20% or 3.2 million) had experienced a mental disorder over the previous 12-months, and almost half (45% or 7.3 million) will experience a mental disorder during their lifetime. People with mental health problems have significant contact with all types of health services (Mather, Roche, & Duffield, 2014), and nurses need the appropriate knowledge, skills, and attitudes to care for these people regardless of the setting. Studies in Australia and elsewhere have demonstrated that quality educational and clinical experiences can improve attitudes to mental health nursing (Brunero, Jeon, & Foster, 2012; Happell & Gaskin, 2013; Surgenor, Dunn, & Horn, 2005).

One of the foundations of working effectively with people with mental health problems is the development of a therapeutic alliance (Pitkänen, Hätönen, Kuosmanen, & Välimäki, 2008), which itself is influenced by the beliefs and attitudes of the clinician (Albery et al., 2003; Hughes et al., 2008).

The beliefs and attitudes held by individuals towards mental health problems vary between cultures (Chambers et al., 2010). These beliefs reflect different historical and cultural antecedents. Consequently, these beliefs impact on the understanding of mental health and resultant attitudes, for example by attributing agency to the development of disorder. Findings from an international study on beliefs and attitudes established their impact on how nurses deliver mental health practice (Chambers et al., 2010).

Students undertaking the BN course will provide care for people who experience mental health problems across a range of practice settings. Self-awareness of one's own beliefs and attitudes concerning mental health influences an individual's capacity to achieve therapeutic outcomes for people receiving nursing care (Stein-Parbury, 2013). Central to an undergraduate nursing curriculum is its capacity to provide teaching and learning activities which challenge and remedy fallacious beliefs and attitudes held by students on entering the course.

A systematic integrative review of the topic was undertaken (Whittemore & Knafl, 2005). An electronic search was conducted for the period January 2000 to January 2017. Databases searched included CINAHL Complete, PsycINFO, Medline and Informit. Key words used included attitudes to mental illness, cultural beliefs, undergraduate nursing students, religious beliefs, in combination with mental illness and mental disorder, and were informed by checking suggested subject terms. Secondary searches were conducted by hand examining references lists of identified papers. Inclusion criteria included English language, peer reviewed journal articles, and those addressing attitudes towards mental health problems, services and treatments. Exclusion criteria included those papers addressing attitudes and beliefs of established clinicians.

The above search strategy returned numerous papers. However, when these were examined more closely and different key word combinations applied, the number of papers significantly reduced. Further, application of exclusion criteria resulted in few papers meeting the criteria for review. Results were tabulated to facilitate comparison and integration of findings.

Findings reiterated the commonality of negative attitudes and beliefs about people with mental health problems and that these attitudes and beliefs are global in nature. Variation was noted between countries of origin, gender and clinical practice area of encounter during study (Hampton & Zhu, 2011; Linden & Kavanagh, 2012). Personal experience of mental health problems was not a significant predictor of attitudes and beliefs (Schafer, Wood, & Williams, 2011).

This paper addresses in detail the findings and ramifications for mental health nursing education design.

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## E 09 - Teaching Patient Safety

### Critical Thinking of RNs in a Fellowship Program

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#### Abstract

**Background:** This qualitative study explored how reflective journaling about critical thinking (CT) dispositions by RNs in a critical care and emergency department fellowship program influenced development and use of critical thinking dispositions during the first 7 weeks of a critical care/ emergency department fellowship program (Zori, 2016).

Developing strong critical thinking skills and behaviors is essential to the development of clinical judgment in nurses as they engage in nursing practice and assume a key role in transforming the health care system (Benner, Sutphen, Leonard, & Day, 2010). Critical thinking dispositions are the internal behavioral intent to use critical thinking skills. Critical thinking skills and seven dispositions were identified in a seminal study conducted by the American Philosophical Association [APA] (1990). The seven CT dispositions identified in the APA (1990) study (inquisitiveness, systematicity, analyticity, open-mindedness, judicious, truth-seeking and self-confidence in CT) were used in the current study that explored the development and use of CT dispositions of RNs in a fellowship program.

Finding strategies, such as reflective journaling, that foster the development of critical thinking in nursing education has been explored. Strategies that promote the development of critical thinking are necessary in a variety of nursing education programs (Burrell, 2014; Chan, 2013; Martyn, Terwijn, Kek, & Huijser, 2014; Zori, Kohn, Gallo & Friedman, 2013)). Nurse residency programs are considered a best practice for transitioning new nurses to specialty practice (Benner, et al. 2010; Letourneau & Fater, 2015). Using learning strategies such as reflective journaling to foster use of critical thinking for participants while in a residency program could help to foster the development of critical thinking as a basis of clinical judgment in beginning RNs.

**Purpose:** To explore how using reflective journaling focused on CT dispositions by participants in a critical care/ emergency department fellowship program might influence use of CT dispositions.

**Design:** This qualitative, descriptive study used content analysis to analyze participant's journal entries on critical thinking dispositions

**Setting:** The setting for this research was a large multi-hospital health system in the northeastern United States with a nurse fellowship program of 1 year duration that transitioned nurses to specialty practice in critical care and the emergency department.

**Methods:** IRB approval was obtained. A convenience sample of all participants in the fellowship program held twice during a calendar year were invited to participate. On the first day of the fellowship program, the researcher presented a 1 hour session on critical thinking dispositions through use of simulated videos and discussion. Participants were invited to participate in the research and informed consent was obtained.

The researcher emailed a weekly prompt with a brief description of one of the CT dispositions for each of the first 7 weeks of the fellowship program. Participants were asked to journal about their experiences with the particular disposition and email it to the researcher. Journal entries were read and then coded by the researcher, initial coding was validated by another researcher with expertise in qualitative methods. Categories were given a descriptor and further reduced resulting in sub-themes for each disposition and then over-arching themes were identified from commonalities of the disposition themes (Krueger & Casey, 2009).

**Results:** A total of 71 participants agreed to participate on the first day of the fellowship program. The number of journal entries submitted for each of the CT dispositions were: 56 for inquisitiveness, 55 for analyticity; 58 for truth-seeking; 46 for systematicity; 42 for critical thinking maturity; 43 for open-mindedness; 38 for critical thinking confidence.

Participants in the study were 74.8% female, 51.1% were white; 80.0% had baccalaureate degrees and 74.8% had less than 1 year of RN experience. Over-arching and Disposition Sub-themes

Over-arching themes: 1. CT is a process that develops during a period of time

2. Purposefully Using CT dispositions may help prevent negative patient outcomes.

Inquisitiveness 1. Facilitates patient assessment and prevents missed information and errors.

2. Furthers individual learning.

Systematicity 1. Essential to the nursing process, develops over time with experience.

2. Helps with organizing and prioritizing the delivery of patient care.

Open mindedness 1. Prevents judgmental, biased behavior.

2. Promotes teamwork.

Analyticity 1. Works together with inquisitiveness and puts puzzle pieces together.

2. Allows one to recognize patterns and anticipate and prevent complications, thus promoting patient safety.

Truth seeking 1. Requires courage to question and result in better learning.

2. Requires putting biases and preconceived notions aside to focus on the patient.

CT maturity 1. Develops over time and helps make sense of different ways of doing things to reach the same goal.

2. Works with open mindedness and allows for learning through reflection.

CT self-confidence 1. Develops over time with clinical experience and allows one to question things and verbalize it to other team members.

2. Works together with the other dispositions to help make decisions and problem solve.

As an exemplar included here is a journal entry from a nursing fellow describing the importance of inquisitiveness in assessment of patients.

"I was in the Emergency Department when a patient came in complaining about feeling generally unwell. Since this is a complaint that is not taken seriously especially when combined with perfect lab results, it would have been very easy for this patient who was in his 20s to be sent home fairly quickly. I felt there must be a reason that this patient brought himself to the emergency department, and so I sat down with him to have a more in depth conversation about what was happening. After a period of time, the patient started to open up more and started to cry... it turned out he was suicidal. Without being inquisitive the patient would have been discharged too soon ... and possibly could have ended his life".

Another entry reinforcing the notion that inquisitiveness allows one to take ownership of individual learning.

"I found being inquisitive can be intimidating as a new grad. As the week progressed I felt more comfortable asking questions. I realized this is a learning experience and I am the one in the driver's seat. If I want to get as much out of this experience then I must be as inquisitive as possible".

**Conclusions and Recommendation:** Many of the participants in this study described how valuable being proficient in the use of CT dispositions were to their own individual learning and to delivering safe nursing care. Reflective journaling was a strategy that seemed to validate and stress the importance of using CT during the first 7 weeks of a fellowship program. This is consistent with Burrell's (2014) findings that reflective journaling is a useful strategy that helps the learner connect theory with practice (Burrell, 2014) and Chan's (2013) findings that reflective journaling positively impacts use of CT.

Further research that explores the internalization of the purposeful use of CT dispositions over time as they progress through their careers would be helpful. Participant satisfaction with journaling as a learning strategy was not explored and would also be helpful in further research.

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## E 09 - Teaching Patient Safety

### Nursing Faculty's Competency to Teach Patient Safety to Their Students

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#### Abstract

In 1999 the Institute of Medicine (IOM) published the *To Err is Human* report, which stated that 44,000 to 99,000 patients died in the hospital from adverse events. Since that time the Quality Safety Education for Nurses (QSEN) initiative in 2012 developed quality and safety competencies that they felt should be incorporated into all nursing undergraduate and graduate curriculums (Barnsteiner, Disch, Johnson, McGuinn, Chappell & Swartwout, 2012). Unfortunately, that momentum was not maintained in many nursing baccalaureate programs. Since that time, patient safety has become an ever evolving discipline that now encompasses many aspects of the science of safety. (Mitchell, Cristancho, Nyhof, Lingard, 2017). It is also well known that nursing faculty is not able to participate in ongoing education in all areas of nursing. A study by Suplee, Gardner, & Jerome-D'Emilia (2014) demonstrated that only 57% of nursing faculty studied developed their teaching skills through conferences. Aging nursing faculty, who are reaching their retirement age, may not keep expanding their knowledge, skills and teaching modalities. (Falk, 2014)

Unfortunately this has resulted in a lot of nursing faculty not having the knowledge and competencies to teach the science of patient safety to their students. In order to determine if this was the case, one College of Nursing in southwestern United States conducted a needs assessment regarding the faculty's knowledge and ability to teach the science of patient safety to their students. The needs assessment was conducted at a Nursing faculty meeting to determine the demographics, self-assessment of the faculty's knowledge and a 10 question quiz to determine if there was a relationship between the self-reported assessment and the score from the Quiz.

The self-assessment for the faculty ranking included terms such as just culture, Swiss cheese model, human factors, near miss, and other terms. The faculty was to rank each word as to whether that faculty member felt they had no knowledge or some knowledge about those topics and then indicate if they felt they could teach that topic and if they needed more education on the topic. The World Health Organization's (WHO) (2013) ten (10) general Patient Safety Questions was utilized for the quiz. The WHO utilizes this quiz to determine if there is a need for their patient Safety curriculum to be implemented.

Out of the 103 faculty signed into the faculty meeting, 86 completed the survey. The average score on the 10 question quiz was 5.77. Four of the 10 questions on the quiz had a majority of the faculty answering incorrectly. These questions included near miss, Swiss cheese model, the connection between ties and scarves and infection, and following the clinical leader's directions. The self-assessment results were interesting in that the answers varied widely with significant statistical differences noted between the knowledge of the faculty and their ability to teach the material, some of which had a p value of 0.001. Some of the faculty selected some knowledge of the patient safety topic but low ability to teach it. Others noted a low knowledge of the patient safety topic and a high level of being able to teach it. The disparity between the faculty having some knowledge and the ability to teach that topic was that the faculty had some knowledge (72.8 – 88.9%) and only a few felt that they could teach the topic (3.7-24.7%). Most interesting was with the topics of informed consent where 18.5% indicated they had some knowledge, but 81.5% indicated they could teach the topic! Also, human factors, a very important part of patient safety, 85% of the faculty indicated that they have some knowledge of human factors, but only 5% felt that they could teach about this topic. Of the topics where the faculty indicated some knowledge but little ability to teach those topics, the majority did not want education about the topic. Only 4% of the faculty wanted education regarding consents. Only one topic, mindfulness, had 98% of the respondents asking for education on that topic. All the other topics scored below 30% of the faculty asking for education.

Given this response rate, it was determined that two actions were needed. The first was to give the faculty resources to utilize if they so wished. The Joint Commission's National Patient Safety Goals (2017) were included on all skill check lists so that the faculty/student would be more aware of these. Patient Safety posters were hung in the Skills lab for use during the experiences there. And all faculty were given information regarding the Institute of Healthcare Improvement's (2017) Open School program which contains modules on patient safety, quality and other such topics. The second set of actions were to utilize Brown bag lunch sessions that would be filmed and offered at any time, development of a patient safety newsletter that the faculty and students will be asked to contribute content, placing a 5 minute 'Safety Moment' at the beginning of every faculty meeting, and monthly emails with one patient safety topic, article or other resources.

Some of these actions plans were put into place during the spring 2017 semester, with the remainder being implemented in fall 2017. This faculty education will evolve over time as there is a patient safety research project underway to re-implement patient safety topics, didactic, followed by clinical, into the undergraduate curriculum during the fall 2017 – Spring 2019 semesters. In conjunction with this research project, as it is implemented with a cohort of undergraduate students, the faculty on one campus has agreed to place all patient safety topics in a slide that has a stop sign with the words Patient Safety and STOP in the right hand corner of the slides. Hopefully this will encourage both faculty and students to explore and implement more patient safety into their education!

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## E 10 - Using Facebook in Research

### Snowballing Via Facebook: A Novel Way to Recruit Millennial Nursing Student Research Participants

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#### Abstract

Snowball sampling is a method of convenience sampling (Cohen & Arieli, 2011, p. 424) and is an example of a non-probability method, which does not recruit a random sample (Sadler, Lee, Lim, & Fullerton, 2010, p. 370). Non-probability sampling can be accidental or purposive.

Respondents to recruitment via social media do not represent a random sample, and this form of purposeful sampling can also be thought of as selection bias. Selection bias occurs in recruitment via social media, because it favours in its initial stages those who access on-line sites. However, research recruitment utilising social media can be argued to be an example of the adaptability and flexibility inherent in non-probability sampling strategies in the use of snowball recruitment strategies (Sadler et al., 2010, p. 371).

Only those who participate in on-line forums such as Facebook are initially included in snow-ball recruitment via social media. However, those who do not use such social online forums can still be recruited via recommendation and provision of the link to the on-line survey. It can be completed independently of membership of any on-line forum.

A potential problem with snowball sampling is 'gatekeeper bias'. Snowball sampling relies on others to facilitate contact between the researcher and potential research participants, and gatekeepers may have their reasons for referring or not referring the researcher to potential participants (Cohen & Arieli, 2011, p. 428). These reasons may vary from the mundane (lack of time, forgetfulness) to unconscious bias (reflecting societal stigma for example) to conscious curating for the sites perceived 'fit' for the requested research recruitment.

Concerns have been raised that online data collection is less reliable (Antoun, Zhang, Conrad, & Schober, 2016), however more recent research has shown that online data collection is comparable in terms of validity and reliability (Denissen, Neumann, & van Zalk, 2010, p. 565). Validity is the degree to which the survey questionnaire will measure what it is supposed to measure and reliability the overall consistency of a measure.

Snowball sampling represents a method of choice for accessing marginalised populations (Cohen & Arieli, 2011). Nurses, although ubiquitous within health care, can be argued to represent a marginalised or oppressed population (Cox, 2016; Kuokkanen & Leino-Kilpi, 2000; Matheson & Bobay, 2007). Their participation in research is not unfettered and their role as gate-keepers for patient research is well documented (Kars et al., 2016). However, it can be argued that the participation of nurses themselves as participants in research, as the focus of the research project, is itself subject to gate-keeping in traditional practice domains.

In keeping with observations from oppressed group behaviour, these gate-keepers are frequently other nurses (Matheson & Bobay, 2007). Clearly in the hierarchical work place of health services, senior nurses exercise control over the flow of information to other nurses. It can also be speculated that the elements of anti-intellectual culture that characterise some of the nursing profession (Miers, 2002; Pringle, 2016) may also serve to discourage participation in research projects between nurses of similar seniority. Elements of this cultural characteristic of the nursing profession are witnessed in the persistence of the so-called "Theory - Practice gap" and continuing arguments to return nursing preparation to the workplace (El Haddad, Moxham, & Broadbent, 2013).

Social media acts as a disrupter to these prior patterns of nursing relationships. In terms of nursing, as previously noted social media has been adopted avidly. Social media offers the researcher access to nurses in ways not previously available. Traditional gate-keepers have been disempowered. The flow of information (about research participation) responds to fresh gatekeeping imperatives (Christensen, Bohmer, & Kenagy, 2000; Weeks, 2015).

Nurses who have enthusiastically adopted social media as a professional platform are usually believed to be millennials – that is those born between 1982 and 2004, also known as Generation Y (Gen Y). General Australian social media profiles support this (Australian Bureau of Statistics (ABS), 2016). Marketing analysis of the profile of Facebook users – Facebook being the largest social media platform – reveal that there are 17 million Australian monthly users (Cowling, 2017). The typical user is a female at 76% of all females compared to 66% of males (Unknown, 2017). Further, millennials represent the largest group of Facebook users at 29.7% (Unknown, 2017). It is reasonable to suspect that Facebook use by nurses also reflects these uses of social media. However, research of the nursing demographics of social media use is largely unreported (Green, 2017).

Social media is being adopted as a component of routine formal nursing and health public communication profiles. Formal nursing organisations such as educational providers, regulation authorities and industrial bodies all maintain social media profiles. So a number of nursing social media sites, are traditional nursing groupings. These contrast to a broad range of spontaneously and non-traditional nursing groups that form other users of social media.

What are the values that guide those gate-keeping these sites? Is it uniformly the case that access is unmoderated for research postings? Do acceptance requirements for membership of some 'closed' sites represent a new consideration for researchers in recruiting representative samples?

These issues will be addressed in this paper.

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## E 10 - Using Facebook in Research

### Student Perceptions of Presenting a Case Study on Facebook

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#### Abstract

**Background:** Members of the millennial generation, as technology natives, show a strong preference for informatics and technology-rich educational environments (Schmitt, Sims-Giddens, & Booth, 2012). Furthermore, informatics has been identified as a necessary component of undergraduate nursing education to prepare nursing students to practice in an increasingly technology-rich healthcare environment (AACN, 2008; Cronenwett, Sherwood, & Gelmon, 2009; NLN, 2008). As a pervasive component of twenty-first century life, social media offers an innovative platform to engage students in their learning. Although various forms of social media have been documented as teaching strategies in collegiate education, there is very limited research exploring the use of social media in nursing education (Ross & Myers, in press). The limited nursing education literature suggests that students enjoy using social media as a teaching strategy (Morley, 2014; Stephens & Gunther, 2016). Additionally, social media demonstrates potential as a platform for interaction and collaboration among students which supports peer-learning (Chan & Nyback, 2015; Garrett & Cutting, 2012; Morley, 2014; Tower, Blacklock, Watson, Heffernan, & Tronoff, 2015). There is no existing nursing education literature that explores student perceptions or outcomes with the use of Facebook as a platform to present patient case study data.

**Purpose:** The purpose of this descriptive, qualitative study was to understand baccalaureate nursing students' perceptions of the use of Facebook as a platform to present patient case study data.

**Procedure:** Nineteen baccalaureate nursing students enrolled in an Introduction to Professional Nursing Practice course in a private, Catholic University in the Mid-Atlantic region of the United States (U.S.) participated in the study. A simulated patient was created on Facebook. The simulated patient's Facebook page was maintained by a Research Assistant. At the completion of the didactic portion of the Teaching and Learning unit, students were instructed to "friend" the simulated patient on Facebook and follow her posts in between class sessions. After following the simulated patient on Facebook for two days, students worked in pairs in-class to develop a teaching plan based upon data collected from the simulated patient's Facebook page. After the completion of this activity, participants completed a researcher-developed survey including nine Likert-style and five open-ended questions to determine their perceptions of this teaching strategy.

**Results:** Overall, students responded positively to the presentation of case study information on Facebook. Five themes that emerged from the qualitative data were: 1) realism, 2) relatability, 3) engagement, 4) uniqueness, and 5) desire for expansion.

**Discussion:** The results from this descriptive, qualitative research study suggest that baccalaureate nursing students respond positively to the use of Facebook as a platform to present patient case study data. As the demographics, preferences, and learning styles of undergraduate nursing students change, nursing education strategies must likewise evolve to meet the learners' needs. Given the millennial student's preference for technology-driven active learning in collegiate education, it is imperative that nurse educators explore innovative, technological teaching strategies to engage these students both inside and outside the classroom. As the most frequently used social media site, Facebook offers a freely available platform to foster student engagement and active application of course material that is well received by students. Because of the dearth of evidence supporting the use of social media as a teaching strategy, this remains an important area for nursing education research. More empirical evidence is needed to support the use of social media as an evidence-based teaching strategy in undergraduate nursing education.

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## E 11 - Technology in Student Preparation

### Can Technology Increase Student Engagement and Learning in the Classroom?

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#### Abstract

**Purpose:** The purpose of this study was to determine the impact of technology on student engagement and learning in an undergraduate nursing research course, and to describe nursing students' confidence in their research and evidence-based practice (EBP) skills.

**Background:** EBP is an integral part of clinical decision-making for nurses, yielding quality patient outcomes, as well as reducing variations in patient care and cost. Despite these clear benefits, EBP is not the standard of care practiced consistently across the U.S. This is partially due to barriers such as inadequate EBP understanding and skills and resistance by healthcare workers (Melnik et al., 2014). To combat these issues, baccalaureate nursing programs typically require completion of a research course in order to establish competencies in EBP and research (AACN, 2008). Establishing such competencies requires not only skills, but is also dependent on one's self-confidence to use skills effectively (Bandura, 1993). Therefore, cultivating student self-confidence in EBP and research skills is essential to prepare future nurses with the tools necessary to improve the quality and safety of the healthcare systems in which they will work (Melnik, et al., 2014). Unfortunately, demonstrating the significance of a research course to baccalaureate nursing students has shown to be difficult, making it challenging for faculty to engage nursing students in learning these important skills (Halcomb & Peter, 2009). Using mobile technologies, such as the iPad, could potentially promote student engagement through active and collaborative learning (Diemer et al., 2012).

**Methods:** This study used a descriptive design to describe student confidence in specific EBP and research skills, and the impact of mobile device use on student engagement and learning. Following IRB approval, 58 students in an undergraduate nursing research course at a public university in the Northwestern U.S. completed an online 16 question likert scale survey.

**Results:** Preliminary results suggest that students reported increased In regards to mobile technology use, a substantial number of students agreed that using a mobile device in their research class helped them develop skills that they can apply to academics (89.7%), apply course content to solve problems (82.8%), and participate in course activities that enhance learning (89.7%).

**Implications:** Requiring a stand alone baccalaureate nursing research class is essential to developing student confidence in research and EBP skills, as well as in applying this material to solve problems. Establishing such pedagogical approaches to improve nursing student engagement in research and EBP courses is essential to future healthcare system improvement. However, further studies should be implemented to evaluate mobile device use further, as well as student skill proficiency in practice after graduation.

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## E 11 - Technology in Student Preparation

### Authentic Simulation for Collaboratively Preparing Student Nurses and American Sign Language Interpreting Student

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#### Abstract

##### Objectives:

- 1.) Demonstrate simulation education that provides training for nursing students and American Sign Language interpreting students in a safe, effective, and compassionate environment to better develop their clinical skills.
- 2.) Exhibit how to bridge the communication barrier between English and American Sign Language with interpreting students and nursing students in an interprofessional simulation.
- 3.) Explain the incorporation of inter-professional education in pre-licensure curricula for student nurses and interpreting students through simulation.

Interdisciplinary learning and collaboration are necessary to continue to improve the quality of health professions and signed language interpreter education in the post-secondary setting. Incorporation of interprofessional education in pre-licensure curricula is advocated in nursing education by The National League for Nursing and the American Association of Colleges of Nursing and is equally valued in the interpreter education field. This simulation project unites the Brooks College of Health (BCH), School of Nursing and the College of Education and Human Services (COEHS), ASL/English Interpreting Program in strengthening our preparation of students to work as members of healthcare teams in which the patients or family members are deaf and use American Sign Language as their native language. Our goal is to improve healthcare services to deaf children and families in north Florida and fill training gaps for nurses and interpreters. Given the deaf population's density in north Florida and the proximity of the Florida School for the Deaf and the Blind (St. Augustine) to UNF, this collaborative model is uniquely-situated and innovative in its plan to enhance the competency of UNF students to work in family-centered healthcare settings that create complex communication, role, ethical, and qualification demands on nurses and interpreters. This project seeks to combine the two colleges teaching efforts to (1) improve the quality of health professions education and (2) prepare interpreters and nurses to function as members of the healthcare team when deaf patients and family members are involved. Interdisciplinary learning and collaboration in the specialty area of healthcare has been a focus of the ASL/English Interpreting program and the School of Nursing since fall 2014, when the School of Nursing began arranging joint simulation training on campus and at a local hospital in response to requests from the interpreting program faculty. A recent example of joint simulation training was when nursing and interpreting students worked in the St. Vincent's Medical Center Operating Room with deaf actors as 'patients' in pre-op, conscious-sedation surgery, and post-op. This joint venture has proven to be very successful for both programs and provides a much-needed exposure to both professionals in training.

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## F 01 - Competency and Transition to Practice

### Are Canadian Indigenous Students Feeling Ready for Registered Nursing Practice?

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#### Abstract

**Background:** Baccalaureate degree nursing graduates in Canada are prepared for generalist nursing practice and have a solid grounding in critical thinking, clinical reasoning, self-evaluation, self-regulation, and inter-professional practice skills (CASN, 2016). It is not uncommon for senior students to lack confidence in their abilities and to feel overwhelmed with respect to their upcoming nursing role (Guner, 2014; Saber, Anglade, & Schirle, 2015). The nursing work environment poses numerous challenges for new graduates and this time of transition can be extremely stressful. Unique transitional challenges occur when new graduates are from ethnically diverse backgrounds and include lack of emotional and moral support, discrimination, isolation and loneliness, and family responsibilities (Loftin, Newman, Dumas, Gilden, & Bond, 2012).

Due to their own lived experiences, Indigenous nurses are considered experts in providing care to Indigenous peoples (Exner-Pirot & Butler, 2015). Cultural congruency between nurses and clients results in positive therapeutic relationships and enhanced satisfaction with care provided, which can positively influence the health status of Indigenous peoples (Banister, Bowen-Brady, & Winfrey, 2014).

Numerous issues hinder the success of Indigenous new nursing graduates (Kulig et al., 2010). Job dissatisfaction and turnover can occur in an already stressful work environment for a newly graduated Indigenous nurse due to racial challenges, strained interprofessional relationships, and lack of inclusivity in the workplace (Kulig et al., 2010).

By understanding the readiness for practice perceptions of Indigenous nursing students and facilitating the successful transition from student to nurse, nursing education programs can honor the Truth and Reconciliation Commission of Canada's (2015) Calls to Action related to: 1) increasing the number of Aboriginal professionals working in the healthcare field and 2) ensuring the retention of Aboriginal healthcare providers in Aboriginal communities. Overall, Indigenous peoples represent an important and growing part of the Canadian population and this study aimed to address the lack of literature regarding Indigenous nursing students' preparedness for practice and new graduates' experiences as they transition into practice.

**Purpose:** The purpose of this presentation is to explore the readiness for practice perceptions of senior undergraduate nursing students of Indigenous ancestry.

**Methods:** A descriptive, exploratory study design was utilized for this project which was conducted in the province of Saskatchewan, Canada. The *Readiness for Practice Survey* (Casey, Fink, Jaynes, Campbell, Cook, & Wilson, 2011) was used to measure senior nursing students' perceived readiness for practice and was divided into three sections: 1) demographic data, 2) a self-report on level of confidence and comfortability with both clinical and relational skills, and 3) an open-ended question related to students' perceptions on what could have assisted them to feel more prepared to enter nursing practice (Casey et al., 2011). Indigenous nursing students who were in the final two months of their nursing program were eligible to participate in the study. Quantitative data were entered, stored, and analyzed using SPSS (v. 23) software.

**Results:** Twenty-six First Nations and Métis senior nursing students participated in the study. The mean age of participants was 29 years and the majority were female. Participants specified the nursing skills they were most uncomfortable performing were electrocardiogram or telemetry monitoring and interpretation, responding to an emergency or code blue, and performing trach care and suctioning. Students indicated their level of comfort in caring for two, three, and four patients and students became less confident as the number of patients they cared for increased. When asked what could have been done to help students feel more prepared to enter the nursing profession, participants had several suggestions including greater assistance with NCLEX preparation, additional clinical hours, greater physiology and pharmacology in upper years, and more hands-on practice with nursing related paperwork.

In terms of students' perceived clinical problem solving, they believed they used evidence to make clinical decisions and they were confident in their ability to problem solve. They also felt confident identifying actual or potential safety risk to patients. Students were least comfortable knowing what to do for a dying patient. When considering student learning perspectives, students believed simulation activities assisted them in being prepared for clinical practice. The least effective learning strategy they perceived was reflective journal writing.

Most participants were satisfied in choosing nursing as a career, however, they were less confident in their readiness for entering the nursing profession. Students were comfortable asking for help and communicating with patients and family members. Participants did not feel overwhelmed with ethical issues and believed they had opportunities to practice skills more than once.

**Implications for Nursing Curricula:** The readiness for practice experiences of Indigenous nursing students from our study appear to be similar to other research projects that have sampled from a non-Indigenous population (Casey et al., 2011; Saber et al., 2015; Usher, Mills, West, Park, & Woods, 2015; Woods, West, Mills, Park, Southern & Usher, 2014). Based on our study findings, cultural background does not appear to influence students' readiness for practice perceptions. This study contributes to the sparse literature on readiness for practice perceptions of Indigenous nursing students and demonstrates that feelings of lack of preparation are common for most senior nursing students as they transition into the workforce regardless of cultural heritage. Nurse educators have a responsibility to facilitate student supports that increase confidence, decrease anxiety, and promote successful transition of new graduates into the nursing workforce.

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## F 01 - Competency and Transition to Practice

### Competency Testing: Evaluating a BSN Student's Readiness for Transition to Practice

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#### Abstract

**Background:** Clinical competence is a critical requisite of nursing education, yet new graduates are not adequately prepared for the transition to professional practice. Rapid changes to the healthcare landscape require educators to create and implement innovative strategies to facilitate, as well as, evaluate learning. Objective structured clinical examinations (OSCE) have been used in medical schools to facilitate assessment of clinical competency; however, there is limited use in undergraduate nursing programs (Salem, Ramadan, El-Guenidy & Gaifer, 2012). An OSCE requires students to demonstrate skills and behaviors in a simulated environment (Najja, Docherty & Miehl, 2016). With the limited use of OSCE's in undergraduate nursing programs there is minimal understanding of the benefits of OSCE's, as well as, best practice for facilitating success in undergraduate nursing students transition to practice. **Purpose:** To explore the use of competency testing through objective structured clinical examinations (OSCE) in facilitating the transition to professional nursing practice.

**Research Question:** Does systematic integration of competency testing prepare the undergraduate nursing student for the transfer of knowledge to practice?

**Methodology/implementation:** Exploratory study. Nurse educators designed a series of OSCE's as a final semester summative assessment for students in a baccalaureate nursing program. Clinical practice partners provided input and guidance on station design and evaluated testing criteria and processes. Station design was aligned with the state action coalition's nurse competency model designed by nurse leaders in education and practice. Clinical scenarios that provided students an opportunity to demonstrate competency at patient management skills and identification of quality and safety concerns were included. Students were required to make clinical judgments based on assessments, initiate interventions, and demonstrate a professional, therapeutic relationship with the patient and/or family. Faculty evaluated each student on achievement of competencies using an objective evaluation tool; inter-rater reliability was maintained through consistent trained evaluators and the use of Panopto technology to record all stations. Student demographics and data from competency scores, participant feedback and NCLEX –RN results from more than 65 students was obtained.

**Results:** A chi-square test was performed to assess the relationship between competency testing stations, the ATI Pharmacology standardized assessment and NCLEX passage. The results for the ATI standardized assessment (1, N=65, = 6.08,  $p < .05$ ), the clinical decision making competency station (1, N=65, = 4.4,  $p < .05$ ), and the quality and safety station (1, N=65, = 4.69,  $p < .05$ ), were significant. No significance was found with the delegation, patient assessment, or medication administration stations. Student and faculty feedback indicate that the OSCE effectively and fairly evaluated clinical competencies and judgment skills. Students suggested that the use of OSCE's be integrated early in the curriculum to reduce stress level and promote improved accountability for best practice and maintenance of clinical competency. The lack of a reliable and valid tool for competency assessment was a limitation of the project.

**Conclusion:** The association between preparedness for practice and competency development has implications for nursing. Including competency testing throughout the curriculum, specifically testing that requires clinical decision-making is vital for safe transition to practice. The use of OSCE's at key points in the educational process can assist in evaluating student performance, identifying the need for remediation opportunities prior to graduation, and preparing students for the transition to practice. The use of Panopto video recordings of student testing provided opportunity for student reflection and self-assessment. Evidenced-based strategies that promote the use of competency testing and the integration of technology are essential for transference of knowledge into professional practice. Further research to evaluate student outcomes and develop a valid and reliable tool is essential in this process.

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## F 02 - Promoting Diversity in Nursing Curricula

### Translating the Lived Experience of Transgender Persons to Nursing Curricula

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#### Abstract

The lesbian, bisexual, gay, and transgender (LGBT) population is a vulnerable and underserved health care population. In the United States, approximately 1.4 million adults identify as transgender—double the number reported in 2011 (Flores et al, 2016). The transgender population is at higher risk for many health issues. Depression estimates for the population are 27.8-51.3% (Bockting, Miner, Swinburne, Hamilton & Coleman, 2014; Budge, Adelsen & Howard, 2013; Nuttbrock et al., 2014) with suicide attempts for transgender veterans reported as 4085-5128/100,000 (Blosnich, et al., 2013). Additionally, 41.9% report experiencing non-suicidal self-injury (Dickey, Reisner & Juntenen, 2015). Several studies have discovered relationships between these mental health concerns and a history of violent experiences, exposure to transphobia, and denial of health care (Bockting et al, 2013; McCarty, Fisher, Irwin, Coleman & Pelster, 2014; Nuttbrock et al., 2014).

The United States Department of Health and Human Services stated that one of the goals of its Healthy People 2020 initiative was to “improve the health, safety, and well-being of LGBT individuals” (2014, para 1). Evidence suggests that gender-nonconforming individuals are becoming more visible in local primary care settings in both rural and urban environments. Nurses have challenging roles in transforming evidenced-based care and intervention into practice to provide culturally sensitive patient care for transgender people. Emerging evidence suggests that content related to LGB and transgender health disparities in the nursing curriculum is suboptimal (Lim, Brown & Jones, 2013).

Recent social gains made by LGB and transgender communities indicate a need for a national LGBT health care agenda and illustrate the need for nurses to address health parity for LGB and transgender individuals. Halloran (2015) states that few practitioners have received formal education on the evolving needs of transgender patients. Undeniably, the nursing profession has consistently provided care for vulnerable diverse populations. However, like other health care providers, nursing is influenced by sociopolitical values and society's expectations for health care delivery systems. This may result in gaps in practicing nurses' knowledge and skills, which may, in turn, adversely affect LGB and transgender patients' health care (Carabez et al., 2015; Chinn, 2013; Sirota, 2013).

Makadon, Goldhammer, and Davis (2015), assert that “there is no question that the actions and inactions of health professionals have had a significant effect on the health of LGBT people” (p. 6). Chinn (2013)—a pioneer nurse educator and LGBT advocate—stated that LGBT content has been missing from the nursing curricula for too long, and has encouraged nursing faculty to integrate LGBT issues into their curricula. Chinn (2013) identified four common barriers faculty experience related to the integration of LGBT-related curriculum content: sexual identity, lack of sufficient time, issues regarding religious beliefs, and fear of negative student evaluations. Levesque (2015) asserted that the increasing visibility of transgender students in academia requires nurse educators to build a culturally congruent curriculum wherein the next generation of nurses can feel safe and free from harm and prejudices, including the threat of bullying (Zou, Andersen, & Blosnich, 2016).

Understanding the transgender experience as these individuals transition to an appropriate gender expression will have a positive impact on nursing knowledge and professional collaborative nursing practice. Although research related to this vulnerable population has been conducted, little is known about the transition experience of transgender people. A phenomenological study was conducted to explore the lived experience of 11 individuals who have undergone gender transitions. The secondary aims of the study were to better address the health disparities of transgender individuals and guide faculty in implementing curricula to meet health disparities of transgender individuals.

After data analysis from in-depth interviews was completed, four major themes emerged and were threaded through the participants' experiences: a) it's gravity; b) shedding your skin; c) navigating the way; and d) a turning point. Participants shared the unrelenting recognition of their biological gender not matching their emotional gender. Most participants experienced a turning point in their gender identification journey. Many experienced thoughts of suicide and recurring depression before their gender transitions. Locating high quality healthcare resources was a common theme. They identified word of mouth and transgender groups as their primary sources of information. Participants shared their desire to make meaning from their experience in order to help and advocate for others. Understanding these commonalities of the lived experience of transgendered people is a fundamental objective for healthcare providers and educators so that quality care is given to improve patient outcomes in this vulnerable population.

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## F 02 - Promoting Diversity in Nursing Curricula

### Fostering Inclusive Spaces for Diverse LGBTQ+ Students and Clients in Nursing Curriculum

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#### Abstract

Peggy McIntosh and Emily Style coined the metaphor that curriculum should be both a “window” and “a mirror” for students. The curriculum should ideally provide “windows out into the experiences of others, as well as mirrors of the student’s own reality” (Michie, 2014, para. 2). It is evident in research that when students feel excluded from curriculum they may not be engaged fully with the content. In reverse, when students are exposed to an inclusive curriculum, they feel motivated and engaged with the content of the course (Haghiri-Vijeh, 2013; Lim & Kim, 2014; Knowles, 1980). Similarly, lesbian, gay, bisexual, transgender, two-spirit, and queer (LGBTQ+) communities are often missed from nursing education and their health and social care needs are not addressed in the nursing curriculum (Merryfeather & Bruce, 2014). This is relevant to programs in nursing education at diploma, undergraduate, and graduate degree programs (Echezona-Johnson, 2017; Daley & MacDonnell, 2015). Foundational nursing textbooks highlight the importance of inclusivity for all clients, but is this really the case when it comes to LGBTQ+ clients? Nursing programs must shed light on the importance of acceptance, access, and health equity for the health of LGBTQ+ populations. Yet, nursing faculty and researchers lack the tools to provide an inclusive and positive space for their LGBTQ+ students in the classroom, lab, and clinical placements (Lim & Hsu, 2016; Sirota, 2013; Sugden, Bosse & LeBlanc, 2016). This presentation aims to provide suggestions and tools on how to foster inclusive environments in nursing education for diverse LGBTQ+ communities.

This presentation will include lessons learned from providing 3-hour Positive Space training to students. The aim of this study was to examine students’ knowledge and comfort with LGBTQ+ communities before and after the Positive Space training and its impact on their professional practice. This study employed a mixed method quasi-experimental research study with pretest, posttest, and focus group interviews. The participants included 160 urban city students in Canada. The results showed statistically significant increases in students’ knowledge and comfort about LGBTQ+ communities post training. Unexpected findings were that students had started to educate and inform family and friends about LGBTQ+ communities after the training. Therefore, incorporation of Positive Space training for healthcare professionals is crucial and has been found beneficial.

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## F 03 - Ethical Considerations in Nursing Education

### African American Nurses Speak Out About Trust and Mistrust in Predominately White Nursing Programs

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#### Abstract

**Background:** The nursing profession has attempted to become a more diversified workforce over the last forty years. A diverse workforce is needed to serve the needs of an increasingly diverse client population (IOM, 2004, 2010, 2015). Greater racial diversity in the healthcare professions improves communication with clients, access to healthcare for minority populations, and client outcomes (IOM, 2003, 2004, 2010; National Center for Cultural Competence, 2004). Further, healthcare workforce diversity improves client trust, reduces discrimination, and promotes more positive experiences (Anderson et al., 2003; J. Cohen, Gabriel & Terrell, 2002; LaVeist, Nickerson & Bowie, 2000). While 12.4% of the U.S. population is African American<sup>[1]</sup> (Humes, Jones, & Ramirez, 2011), only 5.5% of RNs are African American (Budden, Harper, Brunell & Smiley, 2016). Therefore, the nursing profession is dependent on pre-licensure nursing programs to increase the enrollment and graduation of minority students to increase workforce diversity.

**Graduation gaps:** The Education Trust (2017) describes that though enrollment for African American students in colleges and universities is an accurate reflection of the African American population, six-year graduation is disparately lower for African American students; 70.2% compared to 80.5% for European American<sup>[2]</sup> students at non-Historically Black Colleges and Universities (HBCUs). However, African American enrollment in nursing programs does not reflect the African American population (AACN, 2014). Attrition is widely believed to be a significant problem for African American nursing students, though there are no national attrition data published by the AACN or the NLN documenting the problem. The AACN reports that African Americans have a lower graduation rate than all other racial and ethnic minorities (AACN, 2013).

**Study:** The purposes of this study were to describe the experiences, and the meaning those experiences had, for African American students who attended predominately European American schools of nursing. Qualitative descriptive design was used to answer the research questions. 14 study participants who self-identified as African American registered nurses and who reported that they attended predominately European American nursing programs were interviewed to reflect back on their nursing school experiences. The percentage of African American students in the nursing programs participants attended ranged from 1% to 18%. The participants came from 6 different states in the US including three regions: the east, mid-west, and south-central. Semi-structured interviews were used for this study using open-ended broad questions in order for the participants to choose what experiences were important for them to share with the investigator.

**Findings:** Thematic analysis of the interview transcripts resulted in theme of trust/mistrust with some European Americans encountered during nursing school including faculty, classmates, advisors, and administrators. Participants reported mistrust as behaviors by European Americans of looking down or judging them, not keeping information private, having a double standard between African American and European American students, and different life experiences compared to the African American students. Trust was described by study participants as people who cared, worked for diversity, and showed their genuine support through actions. Trust usually developed over time, sometimes taking longer than one semester to develop.

**Trust in education:** Trust between instructors and students is integral for learning (Willie, 2000) and contributes to enrollment and graduation from colleges and universities (Ghosh, Whipple & Bryan, 2001). Faculty members who exhibit caring, respect, and active listening, and who engender trust and build and create a respectful classroom environment, are viewed by underrepresented minority students as most effective (Case, 2013). Feeling stereotyped or stigmatized by European American faculty members and classmates creates distrust in African American students that in turn hinders motivation and academic achievement (Cohen & Steele, 2002).

**Implications:** These findings are important in order to shed new light on a persistent problem in nursing in so that faculty members and program administrators can develop new strategies for recruiting and retaining African American nursing students. For example, nursing programs need to intentionally create fair and respectful learning environments that value and embrace racial and ethnic diversity in the nursing programs. Faculty, advisors, and administrators need to learn about, and work to minimize, micro-aggressions (Sue, 2010) and implicit bias (Banaji & Greenwald, 2016). For example, faculty who grade should be shielded from the student names whenever possible (Banaji & Greenwald, 2016). Focus groups and student surveys can provide important information about the nursing program's environment. Trustworthiness is demonstrated by adhering to policies fairly for all students, participation in campus diversity programs and events by non-minority students, faculty and administrators, listening without judging, and acting on student feedback. Student trust is gained with convenient and welcoming office hours and timely response to emails. Faculty may need to continue to invite students into their offices after they have left the course since for some students trust is only gained over an extended period of time.

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## F 03 - Ethical Considerations in Nursing Education

### The Pedagogical Practices of Clinical Nurse Educators

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#### Abstract

Clinical practica are an essential component in undergraduate nursing programs and clinical nurse educators are primarily involved in teaching in the clinical arena. Clinical instruction is a pedagogical process (Fowler, 1996; Lyth, 2000), where the clinical instructor guides and instructs students in their learning about nursing in the clinical environment. The teaching practice of nurse educators is underrepresented in the literature in nursing education and the ethical challenges that clinical instructors encounter are absent.

A grounded theory methodology suggested by Charmaz (2010) guided this study design. The purpose of this study was twofold; to theorize the pedagogical practices of clinical nurse educators and to uncover the challenges that participants encountered while teaching in the clinical arena. Exploratory, semi-structured interviews were conducted with twelve clinical nurse educator participants teaching in undergraduate nursing programs in a large metropolitan city in Ontario, Canada. The data was coded and analyzed using the procedures outlined by Corbin and Strauss (2008, 2015) and Charmaz (2010) such as constant comparison, theoretical sampling, theoretical sensitivity and reflexivity. Rigour in this study involved both methodological rigour (Cooney, 2011) and interpretive rigour (Charmaz, 2010).

A central concept emerged from the data and encompassed the main concepts found in the results. In this presentation, the author discusses one of the study results, Ethics in Teaching (Campbell, 2003; 2003a; Hansen, 1998) that underpins the teaching practice of the participants. This concept includes the personal and professional values of the participants; Moral conflict experienced by the participants; Ethics found in the Traditional and Progressive approach to teaching and its impact on learning and teaching. The author provides exemplars from the data and situates the concept in the literature. Furthermore, this result explicates ethical teaching practices in nursing in detail and its effect on learning and teaching in the clinical arena.

Teaching in the clinical arena in nursing is complex and multilayered. The practice of clinical nurse educators and how they contribute to student learning will also be discussed in this presentation.

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## F 05 - Innovations in Interprofessional Education

### Using Virtual Reality 360 Video for Interprofessional Simulation Education

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#### Abstract

AHRQ (2017) identified communication breakdown among patients, providers of care, and healthcare staff as one of the top four threats to patient safety. The care provided to patients has grown more complex, leading to a need for novel solutions from nursing educators to prepare students for practice. Understanding how interprofessional healthcare students are immersed in technology use and how students experience being in the psychological presence of learning through VR 360 use will inform educators regarding opportunities to improve teaching and learning in an interactive and meaningful manner.

By arranging learning in interprofessional teams where nursing students can learn about, from and with each other, nurse educators and interprofessional colleagues can begin to make a meaningful impact on learners' preparation (WHO, 2010). It is important to contribute to the body of knowledge on best practices for real to life scenarios in an environment that does not include risk to real patients. Educating interprofessional students in a team approach can enhance exposure to the interprofessional competencies such as enhanced communication and the value of teams and teamwork (IPEC, 2016; Gaba, 2006). One clear example of applying communication and teamwork competencies is through debriefing (Rutherford-Hemming et al, 2016). Debriefing brings various professional viewpoints into the learning and can be used to develop appreciation and experiences in teamwork.

Virtual Reality (VR) is the digital creation of scenarios that are interactive visually and aurally, as well as immersive (Jerald, 2015). By adding 360 degrees of video into a virtual reality world, it is possible to immerse the learner in every aspect of their environment with the simple turn of the head toward a new direction. During an educational experience, coupling the virtual reality 360-degree video experience with an embodiment as a patient places the participant learner in the situation of patient during the scenario. The body interacts with the world and the brain in turn believes that the interactions are a true cognitive experience (Wilson, 2002). In addition to the value of patient embodiment experiences, the development and delivery of virtual reality 360-degree video becomes more cost efficient as more are available, as the equipment costs decrease, and as the faculty resource costs decline.

Simulated scenarios using VR 360 video could lead to more informed patient care by healthcare students and interprofessional teams by arranging interprofessional healthcare students in an embodied virtual reality 360 learning experience where students are immersed in the role of the patient, allows for a more consistent multi user experience.

In a pilot study, a group of healthcare students arranged in interprofessional teams encountered a VR 360 video experience. Students experienced the same embodied experience of Alfred © for a seven minute, set of six live action VR 360-degree video scenario of a patient with multiple health concerns (Washington & Shaw, 2016). All of the interprofessional participant learners heard, saw and experienced the same conditions.

Transitioning simulation to a virtual reality 360 video experience from a common simulation experience like using manikins or standardized actors as patients, holds promise for learning improvement, student success and student satisfaction.

If embodying interprofessional healthcare students in virtual reality is as or more effective than traditional simulation methods, then it will have positive implications on improving nursing simulation education and practice. Multiple students will be able to experience a given scenario in a synchronous, or possibly asynchronous environment, while maintaining consistency in the simulation learning opportunity.

The pilot research involved arranging interprofessional health care students in an embodied patient scenario via virtual reality 360 video. The findings will guide the development of future research for health related virtual reality 360 video experiences. Further research is needed involving virtual reality 360 video efficiencies and effectiveness for interprofessional simulations learning. This pilot research explored a novel approach for interprofessional students to experience a patient experience through the virtual reality 360 Alfred © embodiment experiences and results will be shared.

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## F 05 - Innovations in Interprofessional Education

### Capturing Meaningful Moments: Strategies to Enhance Affective Learning During an Interprofessional Service Experience in Nicaragua

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#### Abstract

**Purpose:** This project highlights implementation of SHOWeD, an arts-based strategy, as a teaching method used to promote affective learning in an interprofessional clinical experience in Nicaragua.

**Design/Methods:** Faculty from the College of Health Professions collaborated to develop an interprofessional clinical experience in an underserved area of Nicaragua using the Interprofessional Core Competencies for Collaborative practice (IPEC, 2016). The SHOWeD method, (Schaffer, 1986), a common technique employing photovoice methods, (Woodgate, 2017), was utilized with students from laboratory science, nursing, and respiratory care. During this clinical experience abroad, students were encouraged to take photos they found personally meaningful and were also provided daily photo journaling prompts designed to enhance self-awareness. After completion of the study abroad and in preparation for a group summative debriefing, students were asked to identify and submit a favorite and a least favorite photo. For each self-selected photo, students were then encouraged to reflect and provide written responses to the five SHOWeD questions; "What do you see here?" "What is really happening here?", "How does this relate to our lives?" "Why does this situation exist?" and "What can we do about it?" Faculty compiled the submitted photos into a PowerPoint presentation which was viewed by all participating students and faculty. During the viewing, each student was provided one to two minutes to share their photos and personal reflections. Upon conclusion of this viewing and reflective sharing, students responded in writing to the following four questions; 1. What factors influenced your choice of the favorite and least favorite photograph you submitted? 2. How did the sharing of other team members' photos expand your experience? 3. Reflecting on your team members least favorite photos, what image(s) stand out and why? 4. Reflecting on your team members most favorite photos, what image(s) stand out and why? Written answers, oral narratives, and the photos were compiled, analyzed, and coded to provide insight into themes and student reflections of using the SHOWeD technique.

**Results/Findings:** Eighteen nursing students, four laboratory science students, and two respiratory care students participated in this project. Students identified emotional responses to situational experiences as influencing their choice of photos selected to submit for presentation to their peers. In choosing their least favorite photo, student's selected images that reflected moments when they were feeling ineffective, out of place, or not contributing to the situation at hand. Their most favorite self-produced photos had a connection to personal experiences from home, were related to the practice area they hoped to pursue, or reflected moments when they perceived they were making a difference in the community being served.

In addition to reflecting on their own photos chosen for presentation, students were also asked to reflect on those photos selected by their peers. Images that were least favored among the group were those that reflected the stark differences between the Nicaraguan community and their own communities. Oddly, these photos did not include people. Photos that were most favorite among the group reflected themes of joy, remembrances of beauty, human resilience, and commonalities of people from different cultures. When asked how sharing of other team members' photos expanded their study abroad experience, students responded that they were better able to understand the varied perspectives of other group members. They recognized similarities in photo themes even though group members had different backgrounds, motives, and desires.

**Impact:** Based on student's responses and faculty observations, the SHOWeD technique utilized in this interprofessional approach impacted this group of students by providing an avenue to engage interprofessionally and enhance affective learning. Choosing and reflecting on self-produced photos encouraged development of the affective domain of learning by capturing meaningful moments, which many times cannot be achieved by written journal, essay, or oral story telling. The act of sharing their photos and reflections with other group members helped the student's develop mutual respect as they recognized shared values, increased their knowledge of other professional roles, and encouraged relationship building.

**Discussion/Implications:** Nurse educators involved in collaborative interprofessional education efforts must adopt and master strategies to promote affective learning and self-awareness that will ignite the interdisciplinary groups' ability to maintain a climate of mutual respect and shared values, increase the knowledge of their own roles and those of other professions, and learn to communicate with other health disciplines and apply relationship-building values and principles of team dynamics to provide health programs. (IPEC, 2016). Arts-based reflection is an effective teaching strategy that can be used to encourage learning within the affective domain (Ondrejka, 2014). The SHOWeD method is one strategy that should be considered. Findings from this project indicate that students enjoy the participatory nature of these activities and believe them to be effective learning activities. Further research is needed to provide evidence of changes in values, behaviors, or critical actions that result from using this method in collaborative interprofessional learning.

**Conclusions:** As nurse educators participate in interprofessional education, it is essential that evidenced based teaching strategies be used that encourage affective learning focused on achieving competencies established by IPEC. The SHOWeD method of teaching is one approach that shows possibility with this challenge.

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## F 06 - Learner Engagement in Simulation

### Overcoming Challenges in Evaluating Active versus Observer Roles in Simulation-Based Education

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#### Abstract

Different student roles are frequently used in simulation-based education. A participant in the active role such as the primary nurse makes decisions and is involved in total patient care in the scenario. Alternatively, a participant in the passive role such as the observer, is frequently watching the simulation unfold without direct involvement in the decision-making. In the National Simulation Study, authors noted that students spend a large amount of time in the passive observation role (Hayden, Smiley, Alexander, Kardong-Edgren, & Jeffries, 2014).

Current research and practice within the nursing discipline has equated having students observe nursing practice with constructivist and experiential learning—the guiding frameworks that underpin simulation-based education (Jeffries, Rogers, & Adamson, 2016). However, there has been no research in nursing education to explore if these experiences for learners in observational roles do in fact support constructivist and experiential learning models. These theories include concepts of assimilation, accommodation, and active experimentation which would require two experiences, similar in nature, to allow for these to be evaluated (Kolb, 2015; Piaget & Cook, 1952). Therefore, the purpose of this pilot study was to establish that two simulation-based experiences, involving a clinical situation with respiratory distress, were contextually equivalent scenarios.

Research in nursing education is beginning to demonstrate that learning outcomes are not significantly different based on the student role in simulations (Fluharty et al., 2012; Kaplan et al., 2012; Livsey & Lavender-Stott, 2015; Rode et al., 2016; Scherer et al., 2016; Smith et al., 2013; Thidemann & Soderhamn, 2013; Zulkosky et al., 2016). However, only three studies examine more than one simulation (Livsey & Lavender-Stott, 2015; Rode et al., 2016; Scherer et al., 2016). Additionally, a significant amount of the existing studies failed to report psychometric analyses of knowledge assessments and/or behavioral instruments raising questions to stated outcomes (Kaplan et al., 2012; Smith et al., 2013; Thidemann & Soderhamn, 2013.) As nursing education simulation programs seek to increase simulation-based experiences, research is needed to demonstrate if one simulation-based experience is enough, despite role, for learners to assimilate and accommodate in subsequent scenarios. Assimilation and accommodation are suggested as the “ultimate goal in a practice profession and the essence of reflection” in simulation-based education (Dreifuerst, 2009, p. 111).

This study took place at a large multi-campus university baccalaureate prelicensure nursing program in the Southwest and involved 78 students and 10 faculty across two campuses. Data collection for the two simulations included four pre/post-tests that were designed to measure knowledge related to respiratory distress. Efforts to establish equivalency included constructing each exam with a similar number of questions assessing equal numbers of knowledge domains and NCLEX-RN competencies in alignment with the 2016 NCLEX-RN Test Plan. Content validity was established with an expert NCLEX-RN item writer. Item analyses were conducted to assess difficulty, discrimination, and instructional sensitivity (Haladyna, 2016; Waltz, Strickland, & Lenz, 2017) as well as internal consistency using the Kuder-Richardson Formula 20. Additionally, data collection included a list of action-items that was developed to assess if each simulation required similar actions to address respiratory distress. Content validity was established with course faculty and a PhD prepared nurse with expertise in nursing education research. Interrater reliability was conducted through viewing recorded simulations.

Preliminary findings from this study include that psychometric testing of multiple-choice knowledge assessments can assist nursing education researchers not only in demonstrating the validity and reliability of measurements, but also in understanding how sensitive the simulation scenario and debriefing are to the content of the assessment. Although critiqued as a passive form of knowledge, multiple-choice tests are feasible to implement in simulation-based education (O’Donnel et al., 2014). Low validity and reliability scores were apparent; however, through the examination of additional discriminants including the Pre-Post Discrimination Index, the Individual Gain Index, and the Net Gain Index (Waltz, Strickland, & Lenz, 2017), the simulation markedly improved performance on individual questions indicating the sensitivity of the simulation. The list of action items demonstrated moderate internal consistency using Cronbach’s alpha (Simulation 1= .692, Simulation 2=.795); however, faculty that participated and viewed recorded simulations reported issues in the facilitation of simulation-based education across instructors and campuses that confounded the ability to state that two simulation experiences were equivalent. This finding supports that multi-site/multi-campus programs of simulation need to be strongly based on the International Nursing Association for Clinical Simulation and Learning (INACSL) Standards of Best Practice: Simulation (2016). Otherwise, it is highly likely that simulation-based experiences are different from facilitator-to-facilitator and campus-to-campus.

Lastly, when evaluating action items, preliminary findings support research regarding formative and summative testing that while “all faculty are content experts, not all are expert evaluators” (Kardong-Edgren, et al., 2017). Interrater reliability was not established during this pilot study. Traditional simulation design with more students observing than participating presents challenges to conducting research regarding student role due to a clustered simulation design that is present. While the action items were present in each simulation as demonstrated by the moderate Cronbach’s alpha, evaluation would need to be individualized which provides challenges with time, resources, and feasibility to occur as part of a clinical course.

Findings from this pilot study revealed numerous challenges in conducting research regarding role in simulation, multiple simulations, inter-rater reliability, validity and reliability in educational research, and multi-site/multi-campus research. These findings, although inconclusive, contribute to ongoing discussions in nursing education that will assist researchers and educators when using simulation as an educational intervention. Additional item analyses can provide educators and researchers with information regarding instructional versus content sensitivity. For novice researchers and educators, these additional discriminants can inform how effective classroom, clinical, or simulation-based instruction is in comparison to content examined. Further, a discussion regarding integration of INACSL Standards of Best Practice for Simulation will further contribute to advancing simulation-based experiences in individual schools, multi-campus schools, and multi-site research. Finally, while pilot

studies in research and doctoral programs may result in inconclusive data, the learning experience is crucial to developing an understanding of research processes, challenges, and limitations in nursing education research.

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## F 06 - Learner Engagement in Simulation

### Evaluating Use of a Mobile Classroom Response System in the Classroom and the Simulation Lab

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#### Abstract

**Background:** A variety of classroom response systems (CRSs) are available to support interactive learning in the classroom. Simple “clicker” systems, with multiple choice questions only, have evolved to interface with multiple devices including smart phones, tablets and laptops. Different question and response types are now available to enhance classroom interactions. Studies evaluating traditional clicker technology have demonstrated that CRSs can foster learner engagement, participation and satisfaction in the classroom (Collins, 2007; Levesque, 2011). Fewer studies have evaluated mobile CRSs. In a recent study, both computer science and dental students reported that use of the PollEverywhere Audience Response System promoted interactivity, increased participation, focused attention, provided feedback on comprehension, and increased motivation to learn (Meguid & Collins, 2017). Limitations of the use of CRSs include potential for technical problems for the instructor and/or learners, cost to learners, increased time for course planning, and decreased time to deliver lecture content (Collins, 2007). Both students and instructors are diverse and have different levels of experience using technology. Thus a thorough analysis of logistical challenges for instructors and learners should be weighed against perceived and actual benefits of using a particular CRS. As well, there is a lack of good quality evidence of the effectiveness of CRS technology on learning outcomes in health professionals and students (Atlantis & Cheema, 2015; Patterson et al., 2010). Thus further research is needed to support their use in undergraduate nursing education. Specifically, studies evaluating these technologies in undergraduate nursing courses (Welch, 2013) and studies evaluating novel applications of these technologies beyond the classroom are needed. One innovative approach that we are implementing is to use a CRS in the classroom and simulation lab as part of presimulation preparation and postsimulation assessment and debriefing.

**Objective:** To evaluate instructor and learner perspectives of feasibility, benefits and limitations of using a mobile CRS in the classroom and clinical simulation lab for undergraduate nursing students.

**Methods:** This descriptive study utilized survey methods to obtain quantitative and qualitative data.

**Sample:** Participants were instructors (n=4), and second (n=100), third (n=41), and fourth (n=85) year students from a BNSc program; however, only learners enrolled in a second year medical-surgical course used the CRS in both the classroom and the simulation lab, thus, this presentation will focus on data from that cohort.

**Use of CRS in the Classroom:** The instructor in the year two medical-surgical nursing course used the CRS in about half of the class lectures; the CRS was not used by any of the guest lecturers. This instructor generally used four to five questions per lecture; with two to three questions being multiple choice questions and one or two questions in alternate forms (word answers, matching, sorting, or discussion). In addition, the CRS was used during a lecture focused on management of the unresponsive patient to collect self-assessment data and knowledge of the content before and after the lecture, and again after participation in an unresponsive patient simulation session in the laboratory.

**Quantitative Data Collection:** Instructor perceptions were measured using the *Perceived Usefulness* and *Perceived Ease of Use Scales* and the *Overall Degree of Interactivity Scale* (Siau et al., 2006). Learner perceptions were measured using the *Classroom Response System Perceptions (CRiSP) Questionnaire* (Richardson et al., 2015). The CRiSP Questionnaire was also adapted for the simulation lab by including 8 original items, and substituting 4 new items to capture relevance to the simulation lab, demonstrating high internal consistency (Cronbach's  $\alpha=0.92$ ).

**Qualitative Data Collection:** Open-ended questions were included on both the instructor and learner surveys to determine: (1) perceived benefits and limitations of using the CRS in the classroom lecture and the clinical simulation lab setting; and (2) CRS features that were useful or not useful. The purpose of collecting this qualitative data is to inform selection of a CRS in the future and to provide guidance on CRS implementation by faculty members.

**Results: Instructor perspectives:** Four instructors successfully integrated the CRS into their lecture courses and one instructor was able to include the CRS in one simulation lab component. Results of the instructor survey scales demonstrated that instructors felt the CRS increased classroom interactivity, and that generally instructors found the CRS relatively easy to use, and fairly useful in the classroom; however, interpretation of instructor scores is limited by the small sample size. Qualitative survey results demonstrated that despite some technical challenges, using the CRS helped instructors to identify and address learning gaps in real time.

**Learner perspectives:** Overall, 2<sup>nd</sup> year nursing students ratings on the CRiSP Questionnaire were moderately high, with a mean total score of 97.3 (SD=14.0) out of 135, with no significant differences between scores obtained in the classroom and the simulation lab ( $p=.122$ ). Mean subscale scores were also moderately high for usability (15.7 out of 20; SD=3.4), engagement (38.2 out of 55; SD= 6.7) and learning (43.2 out of 60; SD=6.1). Results of the qualitative questions on the learner surveys suggest learners preferred a mobile CRS to a traditional “clicker” system because it can be used on multiple devices and employs a variety of question styles not limited to multiple choice questions. Most learners who participated in the simulation lab reported CRS questions during the lecture and at the beginning of the lab helped them to better prepare for the simulation. Many learners also felt that repetition of self-assessments via a learning outcomes assessment rubric embedded into the CRS helped them to reflect on their own knowledge and skills prior to and following the simulations. The greatest limitations reported by learners was the cost to purchase the CRS (\$24 for the term), and not wanting to be graded in the classroom or simulation lab for using the CRS; they preferred using the CRS for learning purposes only.

**Conclusions:** Results of this study suggest that a mobile CRS can support learner engagement and learning in undergraduate nursing classrooms, as well as support presimulation preparation and pre/post simulation assessment. Further research is required to evaluate other novel multi-platform mobile CRSs and to further explore use of CRSs in the simulation lab. In particular, “free” versions of CRSs that are available should be evaluated to



address financial implications for learners who cannot afford the extra cost to purchase a CRS. This novel study will contribute to the nursing education literature on teaching technologies used in classroom and clinical simulation.

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## F 07 - Promoting EBP in Education

### Evidence-Based Practice Knowledge and Beliefs Among Associate Degree Nursing Students: A National, Multisite Study

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#### Abstract

The importance of evidence-based practice (EBP) to reduce undesirable variability in healthcare and afford optimal outcomes for patients and organizations has long been acknowledged (Institute of Medicine, 2001); yet, full implementation at the point of care is still lacking (Melnyk, Gallagher-Ford, Long, & Fineout-Overholt, 2014). While a strong emphasis is placed on preparing baccalaureate nursing (BSN) students for EBP, associate degree (ADN) nurses often work in similar, generalist roles – and little is known about the extent to which they are prepared to deliver evidence-based care. A further complication is the routine reliance by educators and researchers on self-reports of knowledge or competence which have been found to correlate poorly with more objective measures of the construct of interest (e.g., knowledge), both within and outside nursing (Wonder et al., 2017; Zell & Krizan, 2014). To prepare pre-licensure students to implement EBP at the point of care it is essential to: a) accurately evaluate students' EBP knowledge with measures with solid validity and reliability evidence; b) develop and test educational strategies to facilitate development of EBP knowledge across levels of education; c) identify what supports are needed as graduates transition into practice; and d) study the durability of EBP knowledge to determine what supports are needed over the course of nurses' careers.

Here we report results from a descriptive, correlational study of 149 ADN students from 5 programs located in the Midwest and Northeast United States conducted in 2016-2017. The purpose of the study was to describe the levels of EBP knowledge among the sample of ADN students, describe relationships between demographic factors and EBP knowledge, describe the relationships between objective and subjective measures of EBP knowledge, and lastly, to gather validity and reliability evidence for the EKAN in a sample of ADN students from programs in the United States.

In proctored computerized data collection sessions, study subjects from all study sites first completed a demographic and personal characteristics questionnaire. Next, subjects completed the Evidence-Based Practice Questionnaire (EBPQ), a self-report questionnaire by Upton and Upton (2006) that contains three subscales focusing on EBP practice/use, attitude, and knowledge/skills. Subjects then completed the Evidence-based Practice Knowledge Assessment in Nursing (EKAN; Spurlock & Wonder, 2015), a 20-item multiple-choice exam with items addressing EBP-related domains described by the American Association of Colleges of Nursing (AACN, 2008) Essentials of Baccalaureate Education for Professional Nursing Practice (*Essentials*) and the Quality and Safety Education for Nurses (QSEN; Cronenwett et al., 2007) prelicensure competencies.

Subjects were predominantly female (81.9%, n=122), White/Caucasian (83.2%, n=124) and reported English as their primary language (95.3%, n=142). A mean age of 30.3 years (range=19-58 years) was noted for the sample.

Results showed the mean EKAN sum score was 8.77 ( $SD=2.09$ ) out of a possible 20 (range=3-13). In a prior study by Spurlock and Wonder (2015), BSN students showed a mean EKAN sum score of 10.4 (range 5-16), a mean difference of about 1.6 points and a lower range of scores. The current study showed no significant relationships between EKAN sum scores and any demographic variable.

In the current study, the EKAN demonstrated a strong item reliability (0.96) under the single parameter Rasch model (1-PL), but low person reliability (0.16), indicating extreme trait restriction (homogeneity in scores/ability). All EKAN infit and outfit parameters were between 0.8 and 1.2, indicating strong item-model fit. The EBPQ demonstrated a Cronbach's alpha internal consistency reliability of 0.95 for the total scale, with the following subscale results: 0.92 for practice/use subscale, 0.75 for the attitude subscale, and 0.95 for the knowledge/skills subscale. Strong, statistically significant correlations were noted among each of the EBPQ subscales. However, there were no statistically significant correlations between any of the subjective (EBPQ subscales) and objective (EKAN) measures. The correlation between the EKAN and the EBPQ subscale for knowledge was -0.20, indicating that subjects with higher self-rated knowledge levels had fewer correct answers on the EKAN. Subjects were asked to rate their agreement with the statement, "I am sure I can deliver evidence-based care" on a 5-point Likert type scale where 1=Strongly Disagree and 5=Strongly Agree. A total of 126 subjects (84.6%) responded as either Agree or Strongly Agree ( $M = 4.05$ ). Subjects' responses to this statement correlated strongly with the EBPQ subscales for practice ( $r = 0.347$ ) and knowledge ( $r = 0.359$ ), showing positive relationships that were significant at the  $< 0.01$  level. There was no significant correlation between subjects' responses to this statement and the EKAN ( $r = .037$ ,  $p = .650$ ), providing additional evidence on the lack of correlation between subjective and objective measures of knowledge.

This presentation will provide insight into what areas of EBP knowledge were more familiar to ADN students and how to use rigorous evaluation to develop and test educational strategies across levels of education. Through the use of consistent evaluation, faculty can work collaboratively to prepare all prelicensure students to be providers of evidence-based care.

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## F 07 - Promoting EBP in Education

### Evidence-Based Approaches to Internationalizing Nursing Courses: Engaging Students as Stakeholders

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#### Abstract

Studies have demonstrated that internationalization of curriculum and teaching and learning approaches are critical elements in the overall internationalization strategy of an institution. Furthermore, an internationalized curriculum supports a student-centered learning experience and is important in preparing all students for success in today's increasingly interdependent global society (American Council on Education, 2017). The on-campus curriculum is viewed as a central location for preparing all students as global citizens. Curriculum levels that demand educators' attention for creating a comprehensive internationalized student learning experience include individual courses, academic programs, and disciplines as a whole (Helms & Tukibayeva, 2013).

This presentation describes the findings of an internationalization evaluation from student and faculty perspectives. An internationalization review comprises various components of course evaluation processes: its content, materials, activities, and student learning outcomes. At the individual course level, building global competencies and bringing international perspectives into the classroom expands the learning environment for all. In addition to the subject matter of the curriculum, pedagogical implications of teaching and learning approaches to promote and foster transformative internationalization of the curriculum are important considerations.

Students are viewed as important stakeholders in internationalization processes. Graduate level students, both PhD and DNP students, who had completed a graduate level nurse educator course were asked to participate in the course content review. The review also included the course instructor's level of internationalization awareness. This inquiry was guided by Korhonen & Well's (2015) framework of internationalization processes and included a reflection on "How does one make sense of his or her self-conception and role as an educator in internationalizing nursing education? Further, self-concept and awareness is conceptualized as personal traits and attitudinal drivers, or components of "internal readiness aptitude" for global competence (Global Leadership Excellence, 2017).

At a theoretical level, student and faculty involvement encompasses the 'individual and team behavioral level' in the knowledge translation process, with the overall goal of multiple stakeholder involvement in making decisions based on evidence (Patterson & Krouse, 2017). Lave & Wenger's (1991) Situational Learning Theory and the Knowledge to Action Framework (Field, Booth, Ilott, & Gerrish, 2014) influenced the evaluation of implementation activities conducted. Additional processes, including examining internationalization models and evaluation measurement tools will also be presented.

Lastly, next steps in reviewing best practices and designing theoretically supported educational interventions to improving pedagogical approaches will be offered. The conclusion will also address collaborative practice and implications for funding and future research. This initiative was funded by a curriculum internationalization grant. This presentation supports Sigma Theta Tau International's vision for global thought and practice leadership. Furthermore, the National League for Nursing's vision for expanding U.S. nursing education for global health engagement promotes nurse educators to act as catalysts in strengthen nursing education's capacity to prepare nurses for the development of viable, comprehensive and culturally appropriate care in a global context (NLN, 2017).

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## F 08 - Student-Centered Mentoring

### Reducing Performance Exam Anxiety: Student-Centered Skills Performance Exams Using Video and Peer-to-Peer Mentoring

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#### Abstract

Purpose: Nursing education has a large and unique skills based component which include high stakes skills such as medication administration and catheter insertion. The process of teaching these various skills requires an integration of theoretical classroom content and “hands-on” skill development with all skills being inter-dependent on the other for application in the patient care management setting. Prior to performing skills in the hospital, faculty must evaluate the student’s ability to safely perform a skill. Traditionally, in many schools of nursing, nursing skill performance examinations are conducted in a face-to-face (F2F) meeting where a student performs the skill with the faculty watching and evaluating the performance of the skill. Within this teaching institution, nursing students often expressed and exhibited high levels of stress and anxiety during high stakes skills performance testing.

High levels of test anxiety can prevent students from performing well in traditional F2F exams. This form of testing may also keep students from reaching their academic potential by disrupting focus, attention, and concentration increasing the risk for poor performance test outcomes (Driscoll, 2007; Gibson, 2014; Khalaila, 2015). Performance and other types of exams create high levels of anxiety which can be seen in physical and psychological symptoms such as sweating, palpitations, forgetfulness, fear, and doubt (Gibson, 2014). Some literature suggests nursing students are under significantly higher levels of stress than the average college students’ due to the understanding that their academic success directly impacts the quality of care they give and even the smallest mistake can have dire repercussions for the patient and future careers. Because quality of care and safety are of primary concern, academic progression is especially important in nursing school. Failing high stakes exams can lead to failing the overall program (Gibson, 2014; Driscoll, 2007).

Previous nursing skills course evaluation surveys were analyzed which identified grading interrater reliability, faculty reputation, and faculty grading fatigue as factors contributing to student stress and anxiety. Students expressed concerns that the stressful testing environment contributed to their poor test performance. When critically examining the testing process faculty concurred with many of the students concerns.

To reduce nursing student stress and anxiety a new innovative student-centered approach to performance exam testing was piloted over six academic semesters. The focus of this presentation is the analysis of course evaluation data relating to the student’s stress and anxiety in both the traditional face-to-face and video performance examinations.

Methods: Developed as a course evaluation, a mixed methods analysis was used to compare the reported stress and anxiety levels of nursing students being tested using both the traditional skills performance exam and the new video performance exam. In addition to collecting quantitative data, additional qualitative questions were asked. Qualitative questions focused on student’s personal perceptions of stress and anxiety as well as general perceptions related to their respective testing methods.

An instrument that included demographics, qualitative questions, and the Westside Test Anxiety Scale was administered pre/post-performance in the 2015 fall semester as a pilot during the Adult Nursing Skills I class. The Westside Test Anxiety Scale (Driscoll, 2007), is a validated ten item student self-assessment instrument used to evaluate nursing student pre-test anxiety. The standardized performance exam used during the evaluation was the Medication Administration exam. Student participation in the test evaluations was voluntary and anonymous.

Findings: The pilot sample size was 33 nursing students, 21 students took the traditional performance exam and 12 took the performance video exam. Findings in the pilot study found high levels of anxiety among pre-performance exam students. For example, 87% of all students felt they would forget exam information due to anxiety. Post-performance exam survey found high satisfaction from the students testing with the performance video exam. After testing was completed 100% of the pilot student group was satisfied with the video performance exams and reported lower levels of anxiety once they were comfortable with the testing procedure. Results indicated 54% of all students felt they would be comfortable being tested using the video performance exam. When analyzed from a qualitative perspective, the major theme identified for the traditional F2F exam was the negative effects related to the presence of the instructor. There were also positive comments regarding instructors being present but not as numerous. Major themes identified for the video performance exam were “less stressful”, “autonomy”, and “confidence”.

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## F 08 - Student-Centered Mentoring

### Peer Teaching in an Undergraduate Health Assessment Course to Promote Skills Retention

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#### Abstract

**Introduction:** Historically, as an upper division Baccalaureate nursing program, students do not take courses in the nursing school prior to formal matriculation in their third year. To enhance connections with pre-nursing students as well as increase opportunities for students to take outside courses within the college while in the nursing program, a new initiative has been to offer courses to this student population, including pre-requisites and nursing courses. Therefore, a new course was offered to undergraduate students who would be matriculating into the School of Nursing that combined Anatomy and Physiology with an undergraduate health assessment entitled *Assessment of Normal Human Form and Function*. Completion of this course allowed students to participate in a summer elective providing health screenings in a rural setting, and also decreased students' fall course load as it took the place of the traditional health assessment course. However, one challenge associated with presenting health assessment content early was related to how students could retain the information from the time course ended in May (or the health screenings ended in June), until the students entered the clinical setting in late September as knowledge and skill loss may occur over time. Prior research has demonstrated that over time, knowledge retention can diminish, but can also be impacted by practice (Sankar, Vijayakanthi, Sankar, & Dubey, 2013). The purpose of this abstract is to describe a program implemented which was designed to impact this potential knowledge and loss.

**Methods:** An innovative program was piloted entitled "STARS: Students Teaching Assessment to Retain Skills." STARS students participated in a peer teaching experience in the laboratory setting. Prior research suggests that peer teaching programs can be beneficial to students by increasing confidence and proficiency in skills, enhancing interpersonal skills, and developing leadership abilities (Bensfield, Solari-Twadell, & Sommer, 2008; Harmer, Huffman, & Johnson, 2011; Ross, Bruderle, & Meakim, 2015). It has also been well-received by tutees (Weyrich, et al., 2008), and student mentors have reported verification of their own knowledge and skill ability (Smith, Beattie, & Kyle, 2015). Students who participated in *Assessment of Normal Human Form and Function* enrolled in a directed study with the health assessment course faculty and these students were utilized as peer teachers within the laboratory setting. Unique to this experience was that the STARS students were in the same cohort as the students to whom they served as peer teachers, rather than upper level students. Each STARS student was assigned to a lab group for the duration of the semester and facilitated lab activities with the lab instructor. All students also had the opportunity to participate in health screenings within a community organization. STARS students did not participate in the student evaluation or grading process.

**Findings:** Feedback from the STARS students' experience was overwhelmingly positive. Students reported enhancing their own knowledge through review and preparation for lab. Students also enjoyed functioning in the leadership role and developing closer relationships with faculty. Students reported that once clinical rotations started, they used time in the clinical setting to practice health assessment techniques to prepare for lab activities in subsequent weeks. STARS students have also demonstrated continued leadership beyond the semester through informal peer teaching opportunities and student government leadership positions. Due to the success of this program, a second cohort of STARS students will be participating in this program in the upcoming semester.

**Conclusions:** Peer teaching appears to be promote both skill retention and leadership development in students. Future directions for this program include formal evaluation of peer teachers and quantitative skills assessment.

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## F 09 - Caregiver Confidence

### Moving Beyond Written Reinforcement: Using Video Clips to Reinforce Patient Education and Increase Caregiver Confidence

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#### Abstract

**Purpose:** Pediatric nurses frequently teach caregivers to care for their ill child in the home environment. When this care involves learning how to operate medical equipment and perform treatments and procedures, it can be very challenging and intimidating for a caregiver. In the majority of hospitals, caregivers are given written materials upon discharge to reinforce education received from a hospital nurse educator. While written materials alone are acceptable for many caregivers, they do not always meet the needs of a growing population of 21st century learners.

This study explored the use of video skill clips to teach caregivers to perform medical procedures required in the care of their children. The purpose was to determine from the caregiver's perspective the feasibility, acceptability and effectiveness of video skill clips to reinforce discharge education and if this method of instruction increased their knowledge and confidence levels.

**Design and methods:** This One- Group Pretest-Posttest study was conducted at a large Midwestern pediatric hospital in the United States where participants completed an investigator developed questionnaire before and after viewing the video skill clips. The study inclusion criteria were caregivers: (a) 18 years of age or older; (b) able to speak and understand English, and (c) with a child requiring a medical procedure at home. Exclusion criteria were caregivers (a) unable to complete the educational sessions; (b) who had received medical skill teaching or had watched the clips during previous admissions; (c) who were professional healthcare providers themselves. Data analysis consisted of paired t-test and descriptive statistics.

**Results:** The 100% of participants stated the clips were feasible and acceptable (n=40, M= 94.15, SD 6.84). Medical procedural knowledge and confidence levels significantly increased among participants after watching the video skill clips (p=<.001).

**Conclusion and Practice Implications:** These findings highlight a strong need for the use of video in patient education. These skill clips provide an opportunity to caregivers who learn best through visual and auditory methods, especially those with low literacy levels. They are a highly accessible and efficient tool for caregiver review of medical skills.

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## F 10 - Undergraduate Academic Partnerships

### Interprofessional Education (IPE) Curriculum Innovation Using Academic and Practice Partners

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#### Abstract

Is your college looking for ways to enhance your interprofessional education (IPE) curriculum? This presentation describes the use of academic and practice partnerships to create curricular innovation in interprofessional education (IPE). These partnerships can enhance the preparation of baccalaureate nursing students, as well as students from other professions, for collaborative practice and patient-centered care. Core Competencies for Interprofessional Collaborative Practice (IPEC, 2011) are used to help develop graduates who can function with the knowledge, collaborative skills and attitudes to solve practice challenges in today's healthcare settings.

This case study launches by engaging the audience with questions related to IPE. After the interactive presentation there will be time for question and answers along with closing remarks about the factors that contributed to positive student outcomes. Presenters discuss the IPE curriculum planning, implementation, evaluation and the dissemination at national, regional and local levels.

The goal of this change project stems from this college's mission and strategic plan to provide academic excellence through innovative teaching-learning strategies. More qualitative and quantitative research is needed to fully understand best practices in preparing healthcare students for collaborative practice. Outcomes achieved within the change project for recently graduated students are as follows: (1) Baccalaureate graduates meet national accrediting expectations regarding IPE as perceived by faculty, beginning in May 2014; (2) Students will find IPE experiences and simulation helpful in developing skills related to collaboration and patient-centered care; (3) There is collaboration among stakeholders regarding IPE and at least two meaningful learning opportunities resulting annually beginning in the 2013-2014 academic year.

Like many schools across the nation, our college seeks ways to transform nursing education and patient experiences in ways that will both enhance IPE) and assist students to meet nationally accepted IPE competencies. Examples of titles of some past and present IPE experiences include: Wit End of Life Care, Civility Workshop (both classroom); Newborn Dyspnea (simulation); Cardio-Respiratory Care Day (simulation/cardio-respiratory Jeopardy game/ interprofessional panel discussion and blogs); MSIII ACLS simulation and clinical medication review; Hotspotting (classroom and clinical practice); and Transition to home (community setting). Presenters will share their lessons learned throughout the presentation.

The change project began as this Midwestern college was transitioning to a revised curriculum in the fall of 2013 and adding other nursing programs. Through academic partnerships, baccalaureate nursing students now participate in a variety of interprofessional simulation and classroom learning activities involving the disciplines of respiratory care, pharmacy and medicine and more. The project was sustained over the past three academic years with positive outcomes. To date, the project has resulted in the participation of approximately 550 students across at least four disciplines, eight different and successful IPE events and dissemination of project outcomes that provide the opportunity for project replication. Interprofessional relationships have been strengthened over the past few years through experiences with academic and practice partners. The college now has enhanced interprofessional resources and opportunities that promote leadership for the college and its graduates. This innovation increases the involvement and visibility of nursing as a key interprofessional partner while generating new knowledge about educating professionals who will solve healthcare challenges in the future.

Performance measurement is the primary evaluation design for the IPE. This design serves as both an evaluation tool and a management system to guide decision making and improve program outcomes. Measurements include formative and summative student clinical evaluations, student surveys including the Readiness for Interprofessional Learning Scale (RIPLS) (Parsell & Bligh, 1999), and faculty evaluations. Descriptive correlations were measured among the baccalaureate nursing groups and learners from other professions throughout the various IPE events held over the past academic years.

An example of results from the largest IPE, the "Cardio-Respiratory all day event" held in fall of 2013 with Year 3 PharmD students, Year 2 Respiratory Care students, & Year 4 BSN students, showed there was no significant difference on change scores pre and post event on the Readiness for Interprofessional Learning Scale (RIPLS). Pre and post event mean scores on the Team Roles Perception survey indicated that participants levels of agreement were higher post event on both "understanding my role" and "defining the roles of others." In addition, when comparing cumulative faculty mean scores and cumulative student scores using a two factor analysis of variance, all p values were significant on all items. IPEs have showed positive student outcomes.

Our most recent IPE was Student Hotspotting. For the past two years student-faculty teams represented the college in the national six-month Interprofessional Student Hot Spotting Collaborative, Camden NJ. During these experiences, interprofessional teams of several students and faculty members identify barriers and root causes to patients' over-utilization of care in terms of repeat emergency room visits, hospital readmissions, and overall healthcare costs. Over the two six-month projects, eight patients in the community were defined as high utilizers of the healthcare system received care from the team. Project results, including cost savings, were shared locally and nationally. One of our academic partners was selected to be a hub for this national effort. Lessons from this program add a rich layer to an existing curriculum and places students in positions to think systematically about the root causes of illness, high utilization of healthcare and associated costs.

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## F 10 - Undergraduate Academic Partnerships

### A Collaborative Partnership Promoting Upward Mobility in Nursing

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#### Abstract

Educating a nursing workforce with the knowledge and skills necessary to provide quality care to diverse populations is critically necessary to reduce health disparities among underserved populations. Schools of nursing are currently challenged in serving students from historically underrepresented communities who aspire to become baccalaureate nurses. This project describes a collaborative partnership between a school of nursing and a tertiary care hospital to enable working health care paraprofessionals from historically underrepresented groups to access and successfully progress through a baccalaureate nursing program. Unlicensed assistive personnel (UAP) employed at the hospital, predominantly Black/African American and Hispanic/Latino, were the target population for the project. The UAP positions consisted of patient care associates, critical care technicians, patient companions, unit secretaries, and transporters. Ten qualified students were selected from 65 applications of unlicensed UAPs. Key program components contributing to the success of this cohort of students included: 1) academic support; 2) mentoring; 3) a nursing education navigator, serving as an educational case manager; 4) workplace support; and 5) financial support. In order to achieve success for these students, academic and psychological supports were planned for and implemented. Academic supports included a one-year foundational curriculum to build academic skills and refresh basic knowledge in math, English, and the life sciences; recitations for foundational courses, prerequisite life science courses, and introductory nursing courses; extensive academic support workshops; and a cohort program supporting integration into the university learning community. Additional supports included a Nursing Education Navigator (NEN), conceived as academia's counterpart to the patient navigator, and a Hospital Project Coordinator (HPC) working together to holistically assess, support and assist students during their educational journey. The NEN, functioned as a source of guidance, advocacy, and support within the academic institution to mitigate individual barriers to academic success and maximize access to available support services and networks within the academic institution. The HPC interfaced frequently with the director of nursing education and the employees' nurse managers in the interest of designating stable work schedules for the students and troubleshooting other actual and/or potential workplace issues. In addition to the integral roles of the NEN and the HPC, other psychosocial supports included school of nursing advisors; faculty members of the project team; peers from the school of nursing; and baccalaureate nurse mentors, recruited from the students' respective units, who interfaced regularly with the students in the interest of student success in the classroom and workplace settings. These BSN RN mentors, were strongly invested in seeing their mentees achieve their goal of a BSN and provided coaching, tutoring, and ongoing advice. Other mentors included the students' unit-based educator and, in some cases, their nursing clinical leaders. Mentorship, an important component in the academic success of underrepresented students, provided needed student support and professional socialization from competent, enthusiastic nurse role models from the academic and work environments. Financial support included tuition and fees, stipends, state and federal aid, and educational financial support from the hospital. Success of underrepresented, working students in baccalaureate nursing programs is dependent on a concerted academic, workplace, and community team effort to maximize resources and integrate students into the social and academic life of such a rigorous educational program. To date, six of the ten UAP students have matriculated into the school of nursing; are maintaining above a 3.0 GPA as a nursing student; continue to work a flexible, full time schedule; and are respected, responsible members of the hospital staff. This project addresses a way to meet the national need of a more diverse nurse workforce and contributes to increasing nursing education opportunities for individuals who are from underrepresented and disadvantaged backgrounds.

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## F 11 - Student Health

### Model Development of Depression Prevention for Adolescents: Participatory Action Research

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#### Abstract

**Background:** Depression among young adolescents is a critical mental health problem. Such problem could result in future quality of life, both lowering learning capability and social life adjustment among adolescents. Depression prevention intervention at the early onset is thus important. This research study aimed to develop depression prevention model for Thai adolescents.

**Methods:** The development of depression prevention model for Thai adolescents involved a spiral of self-reflective cycles (plan, act and observe, and reflect) and methodology of the participatory action research (PAR). Twenty adolescents aged 10-14 years old, five parents and seven teachers identify critical components of depression prevention throughout four focus group discussions and 17 in-depth interviews. The eleven participants consisted of four teachers, five adolescents and two parents who volunteered to take part in the research team, four teachers and two of the adolescents acted as co-researchers in order to develop depression prevention model for adolescents based on the critical components. All of them worked on the participatory depression prevention model development cycle, namely 5Ps: 1) problem identification, 2) planning to collaboratively identify appropriate solution, 3) production of essential media and materials, 4) putting plan into action, and 5) propose depression prevention model. Descriptive statistics were employed for data analysis while qualitative data from focus group discussions and in-depth interviews were analyzed through content analysis.

**Findings:** The depression risk problems were decreased by a collaborative mutual communication and creating easy and enjoyable activities for depression prevention among adolescents, parents, and teachers based on three critical components of the participatory depression prevention model for Thai adolescents: 1) early detection of depression risks among adolescents, 2) self-worth enhancement activities for depression prevention, and 3) effective communication regarding depression prevention. Feasibility testing of the appropriate depression prevention model for adolescents demonstrated that six adolescents aged 12-13 years old who received PDP training, which led to the understanding of the key concepts for depression prevention, the practice of the depression risk assessment, and the skill training to minimize the risk of depression, enhance self-esteem and promote problem-solving skill through media and activities. They had lower depression mean scores (pre-post: 9.33 and 7.17), higher mean scores for self-esteem (pre-post: 27.83 and 32.00), resilience (pre-post: 109.67 and 113.00), and problem solving (pre-post: 92.83 and 97.33). The research participants reflected satisfaction with the PDP model.

**Conclusions:** The PDP model was developed based on PAR approach, which is empowering the participants to collaborate and create depression prevention for Thai adolescent. The findings provide three critical components of depression prevention model are that; early detection of depression risks among adolescents, self-worth enhancement activities for depression prevention, and effective communication regarding depression prevention. The model would be suitable for the prevention of depression by adolescents themselves as well as their peers, their school teachers, and their family members. Health care providers can employ the participatory depression prevention model training guide to prevent depression in adolescents. Additionally, the findings of this study can be the knowledge based for further study regarding depression prevention for adolescents. The government could set up a depression prevention policy and enhance collaborative early depression prevention in adolescents.

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## F 11 - Student Health

### The Student Nurse Athlete: What Can We Learn From Them?

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#### Abstract

Healthcare is constantly undergoing major transformations that require the need for highly qualified healthcare workers and leaders, particularly in response to technological advances, the aging population, and the Patient Protection and Affordable Care Act. Because not all challenges can be anticipated, nursing and nursing education must be adaptable to these evolving healthcare landscapes. Nursing education in particular is charged with renovating the curricula to develop the knowledge, skills and attitudes to prepare graduates for these transformational changes in healthcare. In addition to critical thinking skills, collaboration, teamwork and leadership have been recognized as necessary requirements to assure safe patient care (Benner, Sutphen, Leonard & Day, 2010; Institute of Medicine [IOM], 1999; 2011). Teamwork within the healthcare environment is becoming more essential given its importance in preventing medical errors (Clancy & Tornberg, 2007). The educational preparation of all health professionals must transition from one of silos to one that fosters communication, collaboration and a team approach (Clancy & Tornberg, 2007). This emphasis on healthcare teamwork began as a result of the publication of the Institute of Medicine's (IOM) report, *To Err Is Human: Building a Safer Health System* (IOM, 1999). A principal finding of the report was that systematic failures in the delivery of healthcare account for more errors than does poor performance by individuals and that success and failures depend on a great extent on the performance of teams. John M. Eisenberg, a leading groundbreaker in patient safety and former administrator for the Agency for Healthcare Research and Quality (AHRQ) observed that "patient safety is a team sport" (Clancy, 2005). It is nearly unthinkable to imagine a winning team composed of individuals with essential and complementary abilities who have not practiced together, yet healthcare professional training has historically been isolated in silos (Clancy & Tornberg, 2007).

The Institute of Medicine, the World Health Organization, the American Association of Colleges of Nursing and the Association of American Medical Colleges all boost the promotion of teamwork and collaboration as one of the core competencies for all healthcare educational programs (Finkelman & Kenner, 2012). It is the intent that all new graduate nurses will utilize evidence-based practice, quality improvement, informatics and teamwork and collaboration to assure safe, patient centered care. Yet embedding these core competencies throughout the nursing curricula has been a difficult movement for nurse educators (Bryer & Peterson-Graziose, 2014; Barnsteiner, Disch, Hall, Mayer, & Moore, 2007). If healthcare institutions expect new graduate nurses to have the tools necessary to communicate, collaborate and work in interprofessional teams, then academic institutions and nurse faculty must seek innovative resources within their institution or community to enhance teamwork opportunities with students of all disciplines.

Collegiate athletics have long been a part of university life. Physical educators, sport experts and researchers have touted the conflicting benefits and disadvantages of playing a collegiate sport while prioritizing academic performance. The general benefits frequently agreed upon include enhanced leadership qualities, competition, character building, student engagement, confidence, motivation, improved health, a persistence to stay in school, and the ability to learn how to deal with failure and difficult situations. It is no doubt that many of these characteristics would be of great benefit to the nursing profession, yet no studies have been done citing nursing student's collegiate sport participation and the attributes and characteristics gained from playing a college sport. It is interesting to note that at the time of this research in 2016, there were only a few research studies done identifying student nurses' activity in any collegiate activity, never mind sports.

This research used a phenomenological design to illuminate and bring light to the experiences of having dual collegiate roles; that of the student nurse and the student athlete. Thirteen practicing nurses were interviewed about their collegiate experience. Each role, that of student nurse and that of student athlete, had various challenges and coordinating both roles was not easy, yet the participating nurses shared very poignant stories of how and why both roles enhanced the other. This study proved that student nurses can and should have the opportunity to participate in collegiate activities as do other college students. Nursing courses should not limit a student's drive to succeed in more than one role and that athletics may not be the only way nursing students can build a sense of belonging in their college community as they build their confidence in nursing.

Although this study's goal was not to identify whether playing a sport in college increased the nurses ability to communicate and collaborate, it did identify that despite the rigors of nursing school and the physical and time demands of playing a college sport, nursing students were able to be successful in both endeavors. Most explained that each role enhanced the other; taking one away would be a conflict of their persona. The repeated themes that were shared throughout the interviews destinguishing the dual role phenomena were: 1) Athletic Identity, 2) Perseverance, 3) Support, 4) Acceptance and Belonging and 5) Transitioning the Sports Mentality into Nursing. The presentation will expand on these themes and will share some of the stories of these student nurse athletes; their determination to succeed at both roles and how their experience affects them as nurses today.

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## G 01 - Curriculum Development

### An Intervention Designed to Enhance Reflective Debriefing Discussions With Nursing Students

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#### Abstract

**Background:** In undergraduate nursing programs, reflective debriefing discussions are an essential component of clinical practice. These discussions typically occur in quiet spaces at the end of the clinical day. Students share information with their peers and the clinical instructor, and analyze situations or significant events that occurred during the day, while also reflecting on their actions. Although the most consistent empirical evidence points to the importance of reflective debriefing during clinical discussions, there is a lack of evidence about practices or strategies that will enhance the quality of discussions, and the capacities of nursing students to engage in meaningful discussions.

Empirical evidence suggests that it can be quite difficult for some instructors to engage undergraduate nursing students consistently and effectively in reflective post-clinical discussions. Lack of student engagement is due to various factors including boredom, fatigue, feelings of discomfort, self-consciousness, anxiety, and/or feeling insecure speaking in front of the instructor and student colleagues (Chernomas & Shapiro, 2013; Cox Dzurec, Allchin, & Engler, 2007; Edwards, Burnard, Bennett, & Hebden, 2010; Jimenez, Navia-Osorio, & Diaz, 2010; Kim, 2003). Anecdotal evidence suggests that some undergraduate nursing students may decide ahead of time whether they will play an active and prominent role in these discussions, or a less active, less prominent role.

**Study Design:** In this multi-site study, we used a randomized crossover research design (Sibbald & Roberts, 1998; Wellek & Blettner, 2012). A period of rest just before discussions (called an incubation interval) in combination with an unrelated distracting task with light cognitive load (during discussions) was the intervention. The intervention was aimed at preventing students' constrained or focused concentration on their instructor's prompts to allow creative and less accessible ideas to surface (Dijksterhuis & Meurs, 2006). The primary research question was: What are the effects of a period of rest combined with a repetitive, unrelated distracting task with a light cognitive load, on undergraduate nursing students' capacities and intentions to participate in reflective, debriefing discussions?

Nursing students' capacities and intentions to participate in reflective, debriefing discussions were the 'behaviours' of interest in this study, which was guided by the Theory of Planned Behaviour (Ajzen, 2003; Francis et al., 2004). According to this theory, nursing students' intentions to engage in reflective, debriefing discussions with clinical instructors are predictable and guided by their beliefs about: a) the likely consequences of participating, producing either favorable or unfavorable attitudes toward discussions, b) what is normally expected during reflective discussions, producing perceived social pressure, and c) factors that facilitate or impede their performance, producing perceptions about behavioural control.

**Method:** Fifteen groups of first-year undergraduate nursing students from two post-secondary educational institutions completed 12 weekly clinical shifts (0700 to 1400 hours) in nursing home settings (8 to 10 students per group). Both institutions followed the same undergraduate nursing curriculum. At the beginning of the study, eight clinical groups were randomly assigned to the intervention during post clinical discussions, while seven clinical groups participated in the usual post-clinical discussions for the same length of time. After six weeks, the groups 'crossed-over' (switched).

All consenting students completed 3 questionnaires (Theory of Planned Behaviour Questionnaire, Brief Fear of Negative Evaluation Scale II, and The Positive & Negative Affect Questionnaire) at beginning and end of a 12-week semester plus a basic satisfaction rating of post-clinical discussions at the end of the 12-week semester. Data were analyzed using SPSS Version 23. The final analyzed sample consisted of 106 students, of whom 93 (87.7%) were female and who were primarily less than 20 years old (n=69, 65.1%).

**Results:** The independent t-tests showed that students who received the intervention (a period of rest combined with a repetitive, unrelated distracting task with a light cognitive load) for 6 consecutive weeks and then stopped the intervention experienced a mean reduction in satisfaction levels over that period. The students who participated in the usual post-clinical discussions for 6 weeks (without the intervention) and then began the intervention showed greater satisfaction after another 6 weeks. The mean difference in the change scores between the two groups ( $x=.81$ ) was statistically significant ( $t=3.51$ ,  $df=104$ ,  $p=.001$ ).

**Conclusion:** Nursing practice is characterized by increasing specialization and heightened use of technology; nursing students learn how to be technologically proficient, accurate, and competent in psychomotor skills. In fact, most nursing students are preoccupied with technical skills and knowledge. But equally important, students must learn how to become reflective practitioners in order to maintain a humanistic commitment to attending to the concerns or feelings of others. They learn these skills during reflective debriefing discussions with their instructors, after clinical practice. These types of discussions are designed to draw their attention to relevant information and help them understand their own and others beliefs and experiences. Reflective processes, however, cannot be imposed by an instructor. This intervention was designed to ease the reflective process, and may be of use to clinical instructors who wish to facilitate the development of reflective practitioners who are able to promote change and enhance the quality of nursing care provided to patients.

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## G 01 - Curriculum Development

### BSN Students' Perceptions of Social Determinants of Health

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#### Abstract

**Scope:** The Robert Wood Johnson Foundation and the Culture of Health call for improving population health to improve Social Determinants of Health (SDOH). It is unclear if the components of SDOH are identified, assessed, and discussed within BSN curriculum. Therefore, this longitudinal, qualitative study was designed to better understand a cohort of 100 BSN students' perceptions of their role in identifying and addressing SDOH with their clients. The components of SDOH derive from exclusion, exploitation, humiliation, and an unequal distribution of basic necessities, such as knowledge, food, property, services, and income. When considering the impact of SDOH on the health of vulnerable populations, nursing education initiatives should be designed to align with recommendations from the World Health Organization to address disparities. (Rozendo, Salas, & Cameron, 2017). There may be a need for an increased focus on concepts of culture within nursing education programs to prepare future nurses for culturally congruent practice that has the potential to reduce the negative impact of SDOH. Unfortunately, concepts related to SDOH are not easily identified or tracked across nursing education curriculum (Diaz, Clarke, & Gatua, 2015). As faculty concerned with addressing this potential curricular deficiency, the purpose of this study was to design an inquiry to explore Bachelor of Science in Nursing (BSN) students' knowledge and perceptions of client care as they relate to SDOH. The aims were: 1) to explore students' perceptions of SDOH upon entry into a BSN education program; and 2) to identify if an evolving awareness of social determinants that adversely affect health were gained on a larger scale by program completion.

A literature review was conducted to identify the issues and trends of SDOH in nursing education. The themes identified were used as search terms and included *disparity, poverty, inequality, homelessness, nursing curriculum, nursing education, nursing faculty, and nursing students*. The literature and research is limited in identifying how SDOH are addressed in existing nursing curriculum. Therefore, to further explore SDOH and their inclusion in nursing curriculum, undergraduate students were surveyed using a longitudinal, qualitative research design spanning the duration of a specified cohorts' nursing education program.

**Significance:** This study stemmed from a desire to better understand BSN students' perceptions of SDOH; to explore whether students' awareness of SDOH increases over time; and to study the impact of knowledge gained while in a BSN education program that influences new nurses to address SDOH in clients. There are educational advantages that result from this study. Beyond evaluating students, the findings from this study may serve as an exemplar for turning Culture of Health questions into scholarly inquiries. The hope is that more educators become inspired to trace students' progress regarding characteristics described in the Culture of Health from program beginning to program end to gain insights that inform curricular revisions.

**Method/Description:** After Institutional Review Board (IRB) approval, 90 of the 100 students volunteered to participate, signed the consent form, and responded to the first survey. The first survey, which was designed to gain baseline data, consisted of three questions: 1) What social determinants are you aware of that contribute to poor health? 2) What do you imagine is the nurse's responsibility, if any, to identify and address change in social determinants of health for clients? and 3) What have you already done to change social determinants of health? The second survey was administered during the last week of the final semester, prior to graduation. The first two questions were identical to survey one to establish differences in perception of SDOH. An additional third question, "How has your perception of the nurse's responsibility in addressing social determinants that contribute to poor health changed over the last year?" assessed the students' reflections of change during their program of study.

**Evaluation Process/Findings:** As a qualitative study, participants were asked to define "social determinants of health." The results were analyzed line-by-line by each of the researchers to identify common themes and categories. The researchers met to discuss findings, looking for common themes and identifying differences. This process was similarly repeated after the data collection with the second survey. Researchers then compared the findings between the data analyses of both surveys to determine when change in awareness occurred and if this change was related to learning that occurred through the nursing education curriculum. The results from the data analysis suggest that a majority of the students initially equated social conditions with lifestyle choices and individual behaviors, (e.g., smoking, lack of exercise, diet). This cohort of participants indicated that the nurse's responsibility was to educate and display characteristics like optimism, kindness, open-mindedness, and helpfulness. Their prior activities to change SDOH focused on personal choices, rather than advocating for others, (e.g. moving to a new town, stopped associating with bad influences).

By contrast, a small number of participants identified social determinants that contribute to poor health, such as poverty and lack of education. For these participants, the nurse's responsibility was believed to be patient advocacy, as in encouraging patient's to further their education. Prior activities of this cohort of participants included serving in the military, going to war, working with community outreach, volunteering, fund-raising, donating money, and raising awareness with social events. These activities were found to influence an increased awareness of the impact of SDOH and means to lessen the impact on patients.

**Conclusion:** This longitudinal/qualitative study explored BSN students' perceptions of SDOH. As participants' responses evolve over time, a narrower, more manageable definition of SDOH may be incorporated into nursing care and an expanded role in identifying and addressing SDOH will emerge. Clinical student experiences should incorporate experiential activities that raise SDOH awareness. Through identifying and improving nursing education, future nurses will be better equipped to answer the call to consider the impact of SDOH when providing quality, comprehensive patient care. Within the auspices of advocating to improve the lives of client's affected by SDOH, nurses may take a leadership role in policy development to better healthcare on a larger scale.

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## G 02 - Developing Professional Nurses in the Workforce

### Resilience and Professional Value Development in Baccalaureate Nursing Graduates

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#### Abstract

**Background:** Professional values are personal beliefs about the worth of concepts or behaviors in a discipline. These beliefs lead to the development of standards from which to evaluate and act upon and are foundational to the practice of nursing. Education is essential to professional value acquisition and it is expected that students' values are modified and expanded during the educational process.

Resilience is identified as the ability to successfully cope with or overcome adversity. Individuals with higher levels of resilience are more adaptable to change than those less resilient. Nurses are often required to work in environments with inadequate staffing, critically ill patients, and need to make rapid life-changing decisions. They interact daily with patients and caregivers in distress. These are but a few examples of why nursing requires a high-degree of resilience.

While resilience has been studied in numerous clinical populations, little is known about resilience in nursing students (Thomas & Revell, 2016) or the relationship between resilience and professional value acquisition. The purpose of this study was to investigate how resilience and professional values in baccalaureate nursing students change from program entry to graduation.

**Methods:** A non-experimental, longitudinal design was used in this study. A convenience sample was obtained from one university in the Southeast United States. Following IRB approval, the 14-item Resilience Scale (Wagnild, 2009), Nurses Professional Values Scale-Revised (Weis & Schank, 2009), and demographic survey were administered to one cohort of baccalaureate nursing students (N=50) at three points in time: upon program entry, at the end of junior year, and at graduation. Internal consistency reliability of the study instruments were acceptable. Cronbach's alpha for the 14-item Resilience Scale (RS-14) was .80 or greater and the Nurses Professional Values Scale (NPVS-R) was .89 or greater at each data point. Repeated measures analysis of variance was used to determine whether there was a significant change over time in the study variables.

**Results:** The mean RS-14 score for entering baccalaureate nursing students was 83.38 (moderately high resilience) with a range of 38 (very low resilience) to 98 (high resilience). While the mean resilience scale score increased at each data point, there was a significant change in scores at the first and third collection periods. Resilience scores increased significantly ( $p = .02$ ) from program entry to graduation. Students also entered the program reporting strong professional values orientation with a mean NPVS-R score of 114.94. However, mean NPVS-R scores decreased at each collection period and there was a significant ( $p > .01$ ) decrease in NPVS-R scores from program entry to graduation. While the scores decreased as students progressed in the program, the mean score of 109.26 was indicative of strong professional values orientation. Additionally, there were significant ( $p \leq .05$ ) correlations between resilience and professional values orientation. At each data point, students who reported greater levels of resilience also reported greater professional values orientation.

**Conclusion:** Overall, baccalaureate nursing students in this sample entered the nursing program reporting high levels of resilience and strong professional values orientation. Resilience levels continued to increase throughout the program. While the professional value scores decreased as students progressed in the program, students in this sample reported stronger professional value orientation at graduation than nurses and nursing students examined in recent studies (Alfred et al., 2013; Brown, Lindell, Dolansky, & Garber, 2015; Fisher, 2014; Gallegos & Sortedahl, 2015; Lin et al., 2016). Higher levels of resilience and professional value orientation may help nursing students navigate the transition into the role of a practicing nurse. Further research is needed to examine how resilience and professional value orientation impact nursing workforce retention.

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## G 02 - Developing Professional Nurses in the Workforce

### Preparing Students to Become Extraordinary Nurses: Perspectives From Nurse Employers

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#### Abstract

The guiding statements of many schools of nursing use superlatives to discuss the quality of their graduates and the anticipated impact their graduates will have on healthcare. Although terms such as “excellent”, “extraordinary”, and “transformative” may prove to be inspirational and motivational, such descriptors are poorly defined, and thus, difficult to measure. The ability to measure achievement of one’s mission and demonstrate congruence with guiding statements are of utmost importance to the stakeholders of any school of nursing, particularly students, boards of trustees, accreditors, and licensing bodies (Lewallen, 2017; Sauter, Gillespie, & Knepp, 2012).

XXX University uses the term “extraordinary” in its purpose and vision statements. In order to better understand this term and its potential impact on curricula, operations, and evaluation processes, a team conducted a search of the literature for descriptions of extraordinary nurses. Very few studies were located that examined what might constitute “extraordinary” in nursing and the potential impact these nurses have on other nurses, the workplace, and patient outcomes. Lefton (2012) conducted a content analysis of extraordinary nursing behavioral descriptors collected from 2,195 DAISY award nomination applications. Lefton identified 22 behaviors associated with extraordinary nursing, most prevalent being those pertaining to compassion, professionalism, positivity, and an energetic productivity. These behaviors may result in improved work environments and patient outcomes (Burston & Stichler, 2010; Copanitsanou, Fotos, & Brokalaki, 2017; Stalpers, Van Der Linden, Kalijouw, & Schuurmans, 2017). Lefton, however, did not include employers’ perspectives in her analysis. This poses a gap. Since employers constitute an essential community of interest, their perspectives serve as vital input for schools of nursing as curricula are developed and revised to best prepare nursing graduates. XXX University surveyed employers of its graduates with an online tool asking them to identify descriptors gathered from the literature that best match their perceptions of extraordinary nurses. Completed surveys were received by 133 employers (nearly a 20% response rate) representing public and private sectors across all organizational types (i.e., hospital, outpatient care, long-term care, home care, and academics). An exploratory factor analysis yielded 9 factors that accounted for 72% of the variance of an initial conceptual model. These findings will be disseminated elsewhere.

This presentation summarizes a collateral qualitative study which was conducted concurrently in order to expand on these findings. Specifically, the objectives of the qualitative study were to discern patterns of descriptors of extraordinary nurses and the impact these nurses have on the work environment and patient outcomes from the perspectives of employers. The study’s general aim was to use the findings to explore how curricula and student assessment rubrics might facilitate and measure the preparation of extraordinary nurses.

Data were collected from open ended survey questions that solicited employers’ perspectives on a) how extraordinary nurses approach their care and interactions with others differently than typical nurses, and b) how extraordinary nurses impacted others. Employers were also asked how schools could better prepare extraordinary nurses. Data were analyzed using a content analysis approach to generate codes and synthesis themes (Patton, 2002). When possible, constant comparison methods were used to examine subtle similarities and differences among respondents in order to refine codes. Codes were then reviewed in light of the quantitative findings of the related study, the findings from Lefton (2012), and general literature descriptions of nursing care.

Thirteen codes were generated from the descriptions of extraordinary nurse characteristics, from which three synthesis themes were discerned that summarized patterns in these nurses: “The Pervasively Curious Critical Thinker”, “The Relentless Difference-Maker”, and “The Servant Leader”. Six codes were generated from the descriptions of the impact these nurses have on others, from which one synthesis theme emerged: “At Ease, All is Good”. Explanations and illustrations of these themes will be shared in this presentation. Employers also provided a varied list of actions schools should take to prepare students to become extraordinary. A summary of these responses will also be provided.

Findings from the study provide faculty a mental picture of extraordinary nursing from which they can more holistically review expected student behaviors and competencies in experiential learning activities. Furthermore, discussion of the findings with students may provide them a more accessible understanding of the type of nursing practice to which they should aspire than might be provided by individual words or phrases. The findings, however, represent only a first step in the study’s general aim to rethink curricula and performance measurement. The themes likely describe nurses more typical of the proficient or expert-level nurse (Benner, 2001). Also, recommendations on how schools might better prepare extraordinary nurses were concise and in need of deeper probing. A follow up study is currently underway using focus groups of nurse preceptors, mentors, and coaches who work directly with new graduate nurses. This study will explore the themes further in order to identify how these themes manifest in the new graduate.

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## G 03 - Advanced Practice Nurse Education

### Strategies Associated With OSCE Simulation, Anxiety, and Clinical Competency in a Family Nurse Practitioner Program

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#### Abstract

**Purpose:** Objective Structured Clinical Examinations (OSCEs) are widely used in Advanced Practice Registered Nursing Graduate Programs and are recognized as a reliable and valid method to assess clinical (Aronowitz, et al, 2017; Miller & Carr, 2016; Mitchell, et. al, 2015). While the OSCE has generally been accepted by faculty members as a performance-based assessment, it is often poorly accepted by students. Use of OSCE in undergraduate programs is well documented; its use in graduate programs is less documented. For graduate students the use of OSCEs involves patient scenarios which require complex clinical reasoning skills, advanced practice knowledge and skills, and interpersonal/communication skills. Successful completion requires proficiency in multiple areas, including the ability to complete a thorough health assessment, advanced physical assessment skills, advanced pharmacology knowledge, interpretation of diagnostic tests, diagnostic reasoning skills, establishment of an evidenced-based treatment plan, effective teaching, and the ability to document the assessment and plan. Despite its acceptance as a reliable and valid clinical evaluative method, the most frequently cited disadvantage of the OSCE is student anxiety and is known to produce higher levels of stress and anxiety among students when compared to more traditional forms of testing. The aim of this project was to examine the differences in student self-reported anxiety levels and clinical competencies for OSCE mastery as students progressed through the final three semesters in a family nurse practitioner program.

**Methods:** The project examined three consecutive retrospective clinical reflection student assignments at 30 minutes prior, during, after, and following debriefing to determine students' self-perceived anxiety levels. In addition students assessed their self-perceived clinical competency. The descriptive study utilized a convenience sample of 72 subjects including both males and females. Data was analyzed using SPSS and the Friedman's test that is a non-parametric test looping within groups to test differences in ranks of scores on 3+ related groups using nominal and ordinal data. Through utilization of Benner's Novice to Expert Theory (1982), our hypothesis was that student OSCE anxiety would decrease and self-reported competency scores would increase each semester during their final year in a family nurse practitioner program.

**Results:** Through utilization of Benner's Novice to Expert Theory (1982), our hypothesis that student OSCE anxiety would decrease and self-reported competency scores would increase each semester during their final year in a family nurse practitioner program was on target.

**Conclusion:** Results from this study add to the body of reported evidence on self-perceived student OSCE anxiety and clinical competency. Through dissemination of this project, faculty utilizing OSCEs as an evaluative process will have an understanding of student self-reported anxiety and clinical competency to provide optimal learning opportunities.

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## G 03 - Advanced Practice Nurse Education

### Evaluating a Web-Based Educational Module Designed to Enhance Advanced Practice Nurse Preceptors' Clinical Teaching Excellence

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#### Abstract

*Challenges for graduate level faculty overseeing clinical preceptors-* There are challenges in providing appropriate education and training for advanced practice nurse (APN) preceptors especially in a distance education program. These challenges include orienting APN preceptors and ensuring APN quality clinical teaching.

*Background:* Student enrollment in advanced practice nursing programs is increasing and there is a corresponding increased need for graduate clinical preceptors. Yet there is little agreement on how best to orient APN preceptors and how to ensure excellence in clinical teaching practices of APN preceptors. Indeed, scant research has been published regarding advanced practice nursing (APN) preceptors in general (Donley, Flaherty, Sarsfield, Burkhard, O'Brien, and Anderson, 2014). In a review of APN preceptor literature, several articles were located that presented educational approaches and theories to enhance skill acquisition of the APN preceptor of nurse practitioner or other health care professional (Lucas and Bischof, 2014; Witt, Colbert, and Kelly, 2013). Also, two recent descriptive studies related to APN preceptors were located. One study described nurse anesthetist (CRNA) faculty characteristics (Merwin, Stern, and Jordan, 2008) and another described APN preceptors' perceptions of benefits and motivations related to precepting (Wiseman, 2013). Several additional studies of APN preceptors were conducted regarding nurse practitioner students' satisfaction with their preceptors (Hayes, 1998; Tanner, 2003) and a recent study investigated the congruence of perceptions of effective clinical teaching between CRNA students and their preceptors (Smith, Swain and Penprase, 2011). However, no articles could be located that were research reports measuring increased knowledge regarding clinical teaching skills of APN preceptor, specifically using web-based delivery of educational modules. Also, no studies could be located that measured APN preceptor self-efficacy.

Studies of web-delivered content to assist preceptor clinical teaching skills acquisition in clinical nurse preceptors has shown promise. Larsen and Zahner (2008) tested the efficacy of web-delivered educational content with public health nurse preceptors and established an increase in knowledge immediately after the module and three months after the web-delivered content. However, perhaps due to low completion rate of participants, the researchers were unable to establish an increase in preceptor self-efficacy. Therefore, a gap in the literature exists regarding APN preceptor clinical teaching skills acquisition, particularly regarding deployment of web-delivered educational content, to achieve appropriate education outcomes, including increased self-efficacy.

*Purpose-* To address the gap in the literature, this study's aim was to measure the effectiveness of a web-delivered evidence-based educational module to increase knowledge of clinical teaching strategies and self-efficacy of APN preceptors.

*Design-* To measure effectiveness, pre- and post-education module measurements were collected and comparisons made between treatment and control groups. APN preceptors were divided into treatment (Educational module participants) and usual (standard) method groups. Educational module group- For the Educational module group, web-based materials were deployed by embedding a link to a shared Google Drive in the recruitment letter. Educational module participants also completed a Survey Monkey questionnaire prior to and immediately after completion of the Educational Module. The same questionnaire was completed again at the end of the semester to determine whether there were longer term educational gains. Links for the questionnaires were in the Google Drive materials. Although the Educational Module pilot testing demonstrated that only one hour was needed to complete the materials, 1 CEU was offered to motivate time-burdened professionals to complete the module and questionnaires. Standard methods group-The Standard methods preceptors completed a questionnaire, similar to the Educational module group, at the beginning and end of the semester. It also included an open-ended item querying what techniques the preceptors use to develop critical thinking skills in their APN students. Those in the Standard Methods groups were offered the opportunity to participate in the Educational Module at the completion of the study. The data were analyzed to determine if there were statistically significant differences in outcome measurements between the APN preceptor Educational Module and Standard methods groups.

*The One Minute Preceptor clinical teaching strategy-* The investigators, in a separate study, queried the APN preceptors to determine their educational priorities. At least, 59% of the respondents identified their number one educational priority was education regarding development of critical thinking skills in their APN students. To address this need, the investigators identified the One Minute preceptor (OMP) as an appropriate clinical teaching strategy to assist APN preceptors to develop the desired teaching skills in their students. Evidence demonstrates the One Minute Preceptor clinical teaching strategy is an appropriate strategy. Farrell and colleagues (2016, p. 278) state, "OMP prompts the teaching of higher level concepts, facilitates the assessment of students' knowledge and prompts the provision of feedback." The OMP uses five microskills to assist the APN to reach appropriate clinical decisions after an interaction with their patient. The five skills include 1) Get a Commitment, 2) Probe for supporting evidence, 3) Teach general rules. 4) Reinforce what was right, and 5) Correct mistakes (Sarkin, 2017).

*Web-based content delivery-* A web-based design for content delivery was selected for this study as evidence supports that adult learners, including nurses, are highly motivated to acquire relevant professional skills (Caputi, 2015; DeBourgh, 2003). Also, Computer Based Learning (CBL) is an effective method to expand nursing knowledge (Dennison, 2011). Additionally, studies demonstrate busy professionals, express satisfaction with self-paced learning (Caputi, 2015; Eaton-Spiva and Day, 2011).

*Selected study findings-* The results of the study demonstrated increased knowledge in participating preceptors regarding the One Minute Preceptor clinical teaching strategy. Immediately after completion of the Educational Module, there was a 74.62% increase in One Minute Preceptor Clinical teaching strategy knowledge scores. Also, after completion of the Education Module, 77.78% of the participating preceptors indicated they were extremely likely to use the One Minute Preceptor clinical teaching strategy with their nurse practitioner students. Additionally, the participating preceptors indicated they were favorably impressed with the Educational Module and its delivery. The APN preceptors who participated in the Educational Module demonstrated sustained knowledge gains measured at the end of the semester. Finally, there were

comparisons on five key measurements between the control group of preceptors and the intervention preceptors, including preceptor self-efficacy in their ability to develop critical thinking skills in nurse practitioner students.

*Implications-* Because of the study's pre-and posttest control and comparison design, the findings may aid in filling an identified gap in the nursing literature, especially at the graduate level. The results may guide master's level faculty in planning educational opportunities for APN preceptors and may be particularly useful for those programs offering distance formatted programs. A small number of preceptors voluntarily completed the Educational module despite to offer of CEUs. In the future, other incentives should be considered to gain APN preceptor participation in educational offerings.

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## G 04 - Improving Student Attitudes Toward Mental Health

### Interventions to Improve Nursing Student Attitudes About People With Mental Illness

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#### Abstract

Undergraduate nursing students possess negative feelings and discomfort in working with people who have mental illness. Nurse educators have teaching goals supporting a good orientation for students to psychiatric nursing cultures. But nursing faculty are also concerned about student attitudes about mental illness as well as knowledge and skills supporting patient-centered care. Student engagement with individuals who suffer psychiatric problems improves their attitudes but is lengthy and typically cannot be scheduled prior to students performing clinically in practicums at mental health treatment agencies. Nurse educators may better support student socialization prior to clinical exposure with innovative and practical educationally-derived strategies to improve their feelings about mental illness and associated treatment.

A growing body of evidence supports the value of engagement in support of improving college student attitudes about people with mental illness. Recent research indicates select educationally-based brief strategies prior to clinical experiences helps improve nursing student feelings about mental health. For the current study, a mixed-methods research design was used. Nursing students were exposed to content-oriented anti-stigma strategies of a brief nature (approximately 30 minutes in duration). These included a video documentary of a person who suffered a lifetime of mental illness and a live speaker articulating their own lived experience of mental illness provided to students prior to attending their mental health nursing clinical experience. Professional (BSN) nursing students were surveyed with a valid and reliable tool (for quantitative measures) and asked to describe their own impressions of mental illness before and after exposure to media and speaker interventions (for qualitative appraisal). Descriptive, parametric and non-parametric statistical analysis (paired Student t Tests and Mann-Whitney U test) were used for analyze quantitative data. Content analysis was conducted for data exploration. The completed analysis suggests the targeted educationally-based interventions support significant improvement of nursing student attitudes and comfort relative to mental illness themes. Brief interventions delivered prior to the start of scheduled clinical meetings may support improved student comfort and confidence to deliver good care while improving perceptions of the overall clinical experience.

Nurse educators may use these results to design and implement immediate and useful approaches for: 1) Improving nursing student feelings about people with mental illness and thereby decrease stigma and thereby improving the clinical experience for care delivery and student evaluation; 2) Supporting advocacy and recovery of people with mental illness by enhancing nursing student perceptions about people with mental illness and mental health care. The current study comprises a collaboration between nursing professors on two different campuses. Another study in process includes a similar design but expanded to using psychology and social work undergraduate students on two campuses in comparison to nursing students. This research supports clarification and modification of student attitudes about people with mental illness.

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## G 04 - Improving Student Attitudes Toward Mental Health

### Improving Nursing Students' Knowledge and Attitudes Toward Mental Illness Using Standardized Patients

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#### Abstract

Simulation in psychiatric mental health nursing education is gaining popularity as clinical placements continue to decline. All nurses will encounter individuals with mental illness throughout their career, making the use of psychiatric mental health simulation experiences pivotal in nursing education. Even among health care providers, there can be considerable stigma associated with people with mental illness. According to Evans-Lacko et al., (2010) three constructs comprise the concept of stigma- knowledge (ignorance), attitudes (prejudice), and behavior (discrimination). Consequently, in the education of new health professionals, it is vital to address each of these constructs to improve knowledge, recognize bias and tackle intolerance.

Evidence that simulation provides valuable opportunities to master new information and improve behavior has been well documented. Simulation has also been shown to improve therapeutic communication skills in psychiatric mental health nursing (Webster, 2014; Webster, 2013). However, there is limited research on the use of simulation, more specifically the use of standardized patients (SPs), to influence and change attitudes towards individuals living with mental illness. The purpose of this quasi-experimental study was to determine the impact of simulation on nursing students' knowledge of and attitudes towards mental illness. Senior level baccalaureate students (n = 91) enrolled in a psychiatric nursing clinical course at Salisbury University were introduced to varying mental health disorders via encounters with SPs in a simulated learning environment. In addition to the SP experiences (SPEs), students were required to complete a toolkit prior to each experience. Each toolkit consisted of learning objectives, reading assignments, a video vignette, and a post-simulation activity. The toolkit topics matched the SPE each week, providing students with the necessary background information on each topic and then giving them an opportunity to use their new knowledge with a standardized patient. Toolkit topics included therapeutic communication, management of hallucination and delusions, setting limits with manic clients, dementia care, and management of addictions and withdraw.

Student knowledge of and attitudes on varying aspects of mental health were assessed at the beginning and end of the semester using the 12-item mental health knowledge schedule (MAKS 10©) tool (Thornicroft, 2009). MAKS 10 © was developed to examine knowledge of and stigma related to common psychiatric mental health disorders among the general public. The MAKS 10© contains 6 stigma-related mental health knowledge items: help seeking, recognition, support, employment, treatment, and recovery, and 6 items that inquire about knowledge of mental illness conditions. Items are rated using a 5-point Likert-type scale with options of agree strongly, agree slightly, neither agree nor disagree, disagree slightly, and disagree strongly. A category of "don't know" was also available. With acceptable internal consistency (.65) and test-retest reliability (.71), and content reviewed by an international panels of experts, the MAKS 10© was selected for its ability to assess and track stigma-related knowledge, its brevity, and ease of administration.

The first six items of the MAKS 10© assess attitudes towards people with mental illness. Respondents are asked to indicate on a 6-point scale, the extent to which they agree or disagree with various statements about people with mental illness, e.g., "people with severe mental health problems can fully recover" (Thorndike, 2009). The remaining six items assess knowledge of mental illness, e.g. whether respondents consider stress to be a mental illness (Thorndike, 2009). At the end of the semester, completed questionnaires were scored and all data were entered in SPSS ver. 24 for statistical analysis

Pre-test data were collected from 91 students, but only 65 completed the post-test. Consequently, all analyses were conducted using a final n of 65. A paired-samples t-test revealed a significant difference in overall MAKS 10© scores before simulations (M=46.95, SD=4.32) and after simulations (M=49.12, SD=3.05);  $t(64) = -4.05, p < 0.01$ . These results suggest that experiences with standardized patients increase student knowledge of mental health disorders and favorably influence attitudes towards individuals with mental illness. Specific items demonstrating the greatest change were knowledge of medications for treatment, ability to give advice on mental health issues, and beliefs that those with mental illnesses want to be employed.

The use of toolkit activities followed by SPEs has enabled nursing faculty to provide consistent clinical experiences for all students that focus on building knowledge and changing attitudes. With growing competition for "live" clinical experiences, educators need alternative opportunities that will provide equivalent outcomes. While data from this study must be interpreted cautiously, the findings are promising and lay the groundwork for future investigation. Limitations include a small sample size and single site location. The study design cannot infer causality and other variables may have contributed to the differences in pre-and post-test scores. For example, all students were concurrently enrolled in a psych/mental health theory course where they studied the same mental health disorders that were embedded in the toolkits and SPEs. It is unclear how the exposure to this content in multiple ways influenced the MAKS post-test scores. Additionally, the loss of nearly 1/3 of the data, from student absence on the day of post-test data collection is of concern.

Further research is needed to continue exploring nursing students' knowledge of mental illness and to determine instructional methods that can be employed to change misconceptions that nursing students have regarding those living with mental illness. This presentation will provide an overview of the study, results, and implications for nurse educators.

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## G 05 - Innovations in Healthy Living

### It's Good to Be Blue: A Nursing Study Abroad Blue Zone Experience in Sardinia, Italy

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#### Abstract

**Background:** Blue Zones are areas of the world where, according to studies performed by National Geographic and other experts, people live measurably longer, happier lives with lower rates of chronic disease and a higher quality of life than they do in the United States. There are five identified Blue Zones, and there are nine common characteristics among these five locations, known as the Power 9. These common characteristics include information pertaining to diet, exercise, relationships, and spirituality. Sardinia, Italy was the first identified Blue Zone, and it has the greatest concentration of male centenarians in the world.

**Methods:** A nursing professor, along with 17 nursing students, traveled to Sardinia, Italy in May, 2017 to explore the culture, lifestyles, and ultimately the Power 9 at work. In Sardinia, students visited and interviewed centenarians in their homes, visited local markets and stores, met with longevity experts, visited a winery and olive oil mill, participated in a cooking class, and visited Blue Zone villages. They experienced typical Sardinian celebrations, meals, and social activities. Students and the faculty member analyzed the collected data using a narrative thematic analysis to determine connections to the Power 9 and overall lifestyle characteristics that aid in longevity.

**Objectives:** The overall aim of this visit was to research the Blue Zone and draw conclusions about the Power 9 characteristics by interviewing, observing, and analyzing. Students immersed themselves in the Sardinian culture and brought back information to the local university community and community as a whole. The plan is to implement Blue Zone ideals locally and potentially to implement the Blue Zone Project with the help of the Blue Zone experts.

**Conclusions:** Visiting the Blue Zone in Sardinia was extremely valuable for nursing students in bringing health promotion ideals back to the community and to patients in a variety of settings. Also, this was an important introduction to qualitative research techniques such as interviewing and qualitative analysis.

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## G 05 - Innovations in Healthy Living

### Perceptions of Significance Regarding Prenatal Care Among Multiparous Patients

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#### Abstract

Pregnancy, with the inherent need for prenatal care, is a global condition. Research has demonstrated a positive relationship between maternal adherence to prenatal care with associated maternal, fetal, and delivery outcomes of pregnancy. Non-adherence has been shown to increase risks of maternal and fetal morbidity and mortality. Despite the importance of care, maternal adherence to prenatal care is problematic, pervasive, and persists without an identified etiology. Research to identify a causation for maternal nonadherence has focused upon groups of women with shared traits or circumstance as a predisposing risk. The aim of this study was to identify how adherent multiparous patients perceive the significance or value of prenatal care. Participants were recruited from a convenience sample as they presented to an obstetric practice in Upstate New York, based inclusion criteria. Maternal multiparous patients who consented to participate, who were in the first trimester of pregnancy, and who had not experienced a loss of pregnancy, were interviewed over an eleven week period. A qualitative semi-structured research study, utilizing a directed content approach with the Health Belief Model as a theoretical base, indicated five themes with an overarching theme of Maternal Fetal (M-F) attachment, as motivating cues to action in seeking care. The maternal patients in this study were all found to have established M-F attachment, prompting them to seek care. Limitations of the study included a small sample size and homogenous sampling of those meeting criteria. Understanding the importance of M-F attachment, and the way in which individual maternal needs may be met throughout pregnancy, has the potential for improved practice aimed at increasing adherence rates. Further research is indicated to explore the multifactorial origins of established M-F attachment, and ways to deliver patient centered-care in practice to meet the diverse and changing needs of maternal patients. The ultimate goal for practice is to improve maternal adherence rates, subsequently affecting improved maternal, fetal, and delivery outcomes.

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## G 06 - Nursing Faculty in Online Education

### Faculty Perceptions of Online Teaching

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#### Abstract

The purpose of this presentation is to describe the results of a thematic analysis of narrative comments addressing faculty perceptions of online teaching in a secondary data analysis. The infusion of technology into learning and teaching has occurred in all aspects of education and has resulted in more online courses (Allen & Seaman, 2014; Frazer, Sullivan, Weatherspoon, & Hussey, 2017; Jacob & Vanderhoef, 2014). As the number of online courses increases, it is essential to understand faculty perceptions of online teaching and the support that promotes their efficacy with online teaching. There is a gap in the literature of qualitative studies which focus on faculty perceptions of online teaching (Frazer, Sullivan, Weatherspoon, & Hussey, 2017). Richter's (2015) original survey research study assessed perceptions of nurse educators' online teaching efficacy and competency.

Richter (2015) reported self-assessed competency in the use of educational technologies as the best predictor of online teaching efficacy. Richter also found that competency increased when online teaching efficacy increased (Richter, 2015). Faculty who have had the least experience with online education perceive the most barriers to teaching online (Lloyd, Byrne, & McCoy, 2012). Findings from these studies support the need to address teachers' sense of online teaching efficacy through faculty support and development.

Open-ended questions were posed to solicit faculty opinions regarding their sense of efficacy and competency during the original study but were not analyzed initially. The survey research questions that provided the data for a secondary data analysis are as follows:

- Do you have any overall comments about your ability to effectively locate, design, and use educational technology to facilitate and evaluate student learning?
- Do you have any overall comments about your ability to use educational technologies to help students achieve program outcomes?
- Do you have any overall comments about your ability to use educational technologies to effectively implement principles of good teaching?
- Do you have any overall comments about your ability to create effective learning experiences in the online environment using specific tools?
- Please feel free to type in any other comments related to your experiences or perceptions of teaching nursing courses online.

A phenomenological-hermeneutic approach was used to determine the relationships and meanings embedded in the narrative comments to uncover perceptions and identify themes in the nursing faculty members' comments about teaching in an online environment. The text was read and analyzed as a whole to become familiar with the content and context. The secondary data analysis of data from a faculty survey exploring faculty perceptions of online teaching identified technology, time, and relationships as the most important issues for online teaching. These findings are consistent with earlier studies reporting time related issues, social presence in virtual teaching, and institutional support (Frazer, Sullivan, Weatherspoon, & Hussey, 2017; Lloyd, Byrne, & McCoy, 2012; Mastel-Smith, Post, & Lake, 2015). Based on findings of this study and evidence from other studies, faculty view support such as an instructional designer, preparatory courses, allocation of time, and peer and/or mentor support as valuable. The number of online nursing education programs will continue to grow. To accommodate this growth faculty require support to learn and use new technology, recognition of the time involved with online teaching, and relationship through mentoring.

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## G 06 - Nursing Faculty in Online Education

### Culture of Curiosity: The Experienced Nurse Educator and Intellectual Curiosity in the Online Learning Environment

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#### Abstract

The need for nurse educators to teach skills of inquiry in pre-licensure baccalaureate nursing programs has received increased attention over the past six years. The American Association of Colleges of Nursing (AACN, 2013) and the recommendations by the Institute of Medicine (IOM, 2011), address the need for skills of inquiry as essential outcomes to be gained from a baccalaureate nursing program. According to Merriam-Webster (2016), skills are defined as “the ability to use one’s knowledge effectively in execution or performance” and the ability to “do something that comes from training, experience, or practice.” Inquiry is defined as the “act of asking questions to gather or collect information” (Merriam-Webster, 2016). Within nursing practice, skills of inquiry include the ability to make observations, classify them, and develop inferences or predictions as they relate to patient care. Integrated skills of inquiry reflect the nurse’s ability to problem solve, interpret data, creatively or critically think, or clinically reason. These essential skills of inquiry are inherent to the provision of safe patient care as described by the American Nurses Association (ANA, 2012) Professional Nursing Practice Scope and Standards of Practice and should be an integral part of nursing education learning environments.

The recommendations for nursing education reform by Benner, Sutphen, Leonard, and Day (2010), emphasize clinical reasoning and multiple ways of thinking to promote a student’s ability to learn skills of inquiry. To optimize the student’s ability to learn skills of inquiry, nurse educators must use learning strategies to engage students in the process of inquiry. Various active learning strategies such as problem-based learning, inquiry-based learning, and appreciative inquiry, have been identified within nursing education as pedagogically sound approaches to promote student inquiry (Adhikari, Tocher, Smith, Corcora, & MacArthur, 2014; Chan, 2013; Farid, Naz, Ali, & Feroz, 2012; Ling-Na, Qin, Ying-qing, Shao-yu, & Hui-Ming, 2014; Spence, Garrick, & McKay, 2012; Yu, Zhang, Xu, Wu, & Wang, 2013). Inherent to the implementation and use of active learning strategies is the nurse educator’s ability to engage student intellectual curiosity. Berlyne (1960) defined curiosity as a variable of motivation and engagement of curiosity can result in exploratory behavior and a desire to acquire new knowledge. Engagement of intellectual curiosity promotes development of skills of inquiry but the concept has not been investigated fully within the context of nursing education (xxxx, 2013). The findings from a principle-based concept analysis on intellectual curiosity in nursing education suggested the situational context of the learning environment and the nurse educator’s ability to model curiosity held a strong influence on engagement of student intellectual curiosity (xxxx, 2013).

The traditional, face-to-face, classroom and clinical learning environments have provided multiple opportunities for nurse educators to employ various teaching strategies and pedagogies known to promote skills of inquiry (Chan, 2012; Chan, 2013). However, when researchers examined the effectiveness of these active learning strategies, it was the relationship of the strategies to student critical thinking and clinical reasoning investigated and not the student attribute of intellectual curiosity. Active learning strategies have also been empirically examined in the context of the online learning environment (Carpenter, Theeke, & Smothers, 2013; Guzik et al., 2012; McClain, Biddle, & Carter, 2012). But these studies focused on instructional strategy effectiveness, course redesign, or student satisfaction and not on skills of inquiry or student intellectual curiosity. With the ever-shifting knowledge base of healthcare and evidence-based practice, it is important nursing programs produce graduates who are flexible and intellectually curious to sustain continuous, lifelong learning and, ultimately, positively influence patient health outcomes.

Therefore, given that: it is essential nursing students gain skills of inquiry during their educational preparation; online learning has been proposed as a solution to both the nursing and nurse faculty shortage (AACN, 2012); and intellectual curiosity as an isolated concept and phenomenon has not been fully explored across the various contexts of nursing education learning environments; this study sought to better understand intellectual curiosity in the context of the online learning environment and from the perspective of the experienced nurse educator.

Under the assumptions of philosopher Max van Manen (1990, 1997) and Martin Heidegger (1962), the purpose of this qualitative, hermeneutic phenomenological study was to understand the lived experience of baccalaureate nursing student intellectual curiosity for the experienced nurse educator teaching within the online learning environment. The research question was: What does intellectual curiosity mean to experienced nurse educators teaching in the online environment? A total of eight participants from three different institutions of higher education in the southeastern United States were interviewed through a Socratic approach (Ironsides, 2005). Diekmann, Allen, and Tanner’s Steps for Data Analysis (1989) were utilized for data analysis. Three constitutive patterns and seven relational themes emerged through the data analysis process with one hundred and thirty-three key narrative text excerpts identified by the researcher and data analysis team to support the thematic and pattern analysis. The five expressions of rigor for interpretive phenomenology, proposed by de Witt and Ploeg (2006), provided assurance of study transparency and rigor of the process that yielded the study findings. The findings of the study revealed many shared practices and provided several implications for nursing education. This study extends the discipline of nursing education with its emphasis on the faculty experience within the context of the online learning environment.

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## G 07 - Predictors in Nursing Education Success

### A Basic Science Pre-Test to Assess Academic Risk of First Year Nursing Students

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#### Abstract

At a medium sized private university in the mid-Atlantic region, nursing and science faculty collaborated to improve nursing student retention through development of a Science Pre-test for use with incoming students. This assessment test was designed to identify students with deficiency in fundamental science knowledge so that intervention strategies could be initiated early for those students.

According to sources cited by Harris, Rosenberg and O'Rourke (2014), the rate of attrition from associate and baccalaureate nursing programs may be as high as 50% or even 85% for minority students. The Commission on Collegiate Nursing Education (CCNE) states an expected goal of at least 70% retention, or no more than 30% attrition (CCNE, 2013). Horkey (2015) cites National League for Nursing (NLN) data that indicate an average first year attrition rate of 18% for pre-licensure nursing programs, with most attrition occurring within the first year. In the initial year of a nursing curriculum, students may not even be counted within a nursing class cohort, however that first year serves as a gateway or barrier to nursing studies. With increasing attention given to retention in nursing education, scholars and administrators seek explanations for the root causes of retention and attrition, as well as evidence-based interventions to improve nursing program completion. Jeffreys' (2015) Nursing Universal Retention and Success model identifies multiple student profile characteristics that affect nursing student retention, including age, gender, language, ethnicity, family educational background, work experience and prior educational experience. When considering prior educational experience, prerequisite science course performance or basic science knowledge are frequently cited as correlates of nursing program completion (Abele, Penprase & Ternes, 2011; Simon, McGinnis & Krauss, 2013). In a broader discussion of contemporary college student attrition and retention in science, technology, engineering and math (STEM) programs, scholars suggest high school preparation in math and science is lacking, and "low proficiency in basic skills calls for the need to bridge high school and college science curricula" (Sithole, Chiyaka, Mupinga, Bucklein & Kibirige, 2016, p. 52.) In our nursing program, first year student attrition ranged from 30 to 35 per cent over the last three years, mainly for academic reasons. Achievement of passing grades in science courses, particularly anatomy and physiology, represents the greatest challenge for these students. Therefore, in conjunction with professional staff in our academic support service department, science and nursing faculty concluded that a focus on improving success in the first anatomy and physiology course would be an appropriate initial step towards improving retention in the nursing program.

We chose to assess the science knowledge of incoming students to gather additional information about student academic risk before the start of the first semester of study. In our program's experience, while students in incoming nursing classes all meet the same admission requirements, there is much variability in level of high school preparation in science, as well as a wide range of study skill proficiency. While assistance in the form of tutoring and supplemental instruction is available to all nursing students in the first-year science courses, many do not seek help until late in the semester, when achieving a passing grade is not realistic. We sought to develop an objective measure to identify students most in need of academic assistance in time to make a meaningful difference.

The 25-item Science Pre-test was developed by a panel of three science faculty who regularly teach the required anatomy and physiology courses. This test was intended to measure background knowledge foundational to concepts addressed in the initial lessons of the first semester anatomy and physiology course. Concepts addressed include characteristics of cells, basic genetic concepts and chemistry principles such as pH and concentration. These topics are generally contained in high school science courses and are included in the beginning chapters of the required anatomy and physiology textbook. For three consecutive years, the Science Pre-test was administered to students during the freshman orientation period prior to the start of classes. Two hundred forty-six nursing students were among a larger group of health professions and science majors who took the test. Early in the semester, learning support staff contacted students with a score of less than 50%, to encourage them to take advantage of tutoring and supplemental instruction. Student participation in academic assistance services was on a voluntary basis.

The Science Pre-test was administered to 485 students over three years, including majors in nursing, occupational therapy, athletic training and biology. The internal consistency as measured by Kuder-Richardson scores, ranged from 0.57 to 0.62, which is considered acceptable for a teacher-made test (McGahee & Ball, 2009). For the nursing students (n= 246), the relationship between scores on the Science Pre-test, and spring, fall and cumulative first year science course grade point average was investigated using Pearson product-moment correlation coefficient. There was a moderate positive correlation between the Pre-test scores and science grades for fall semester ( $r = .406$ ), spring semester ( $r = .379$ ) and total year ( $r = .416$ ),  $p < .001$ .

Analysis of correlation between results of a Science Pre-test given to first year nursing students and college science grades shows a positive relationship, supporting content validity of the Science Pre-test. This test has potential to be a valid, reliable, economical and efficient way to screen students in an objective way, enabling early identification of those students more likely to need supplemental instruction, tutoring services or other study skill development

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## G 07 - Predictors in Nursing Education Success

### New Careers in Nursing: Pre-Entry Immersion Programs and Relationship to Graduation From Accelerated Nursing Programs

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#### Abstract

For an individual with a bachelor's degree in another field, the transition to a career in nursing through an accelerated nursing program is challenging and is often more challenging for underrepresented minority students (Cantwell, Napierkowski, Gundersen, & Naqvi, 2015). Although overall growth in nursing program graduates has increased by 141% in ten years (Buerhaus, Auerbach, & Saiger, 2014), the nursing workforce remains predominantly White (75%) and female (93%) (United States Department of Health and Human Services [USDHHS], 2013).

The Robert Wood Johnson Foundation (RWJF) in collaboration with the American Association of Colleges of Nursing (AACN) recognized Accelerated Baccalaureate of Science in Nursing (ABSN) programs as an important alternative to the traditional four-year nursing degree. This partnership resulted in The New Careers in Nursing (NCIN) program. The goals of NCIN were two-fold: help alleviate the nursing shortage and increase diversity among nursing professionals. The NCIN program provided 3,506 scholarships to underrepresented minority or economically disadvantaged nursing students attending 130 ABSN programs in the U.S. from 2008 to 2015 (DeWitty, Huerta & Downing, 2016).

Pre-Entry Immersion Programs (PIPs) have been developed to assist nursing students through the challenge of the ABSN or traditional baccalaureate nursing programs (Cantwell et al., 2015; Condon et al, 2014; DeWitty et al, 2016; Loftin, Newman, Gilden, Bond, & Dumas, 2013; Rosario-Sim, 2016) however there exists a lack of consensus regarding the utility of PIP programs and the structure that PIP programs should take. To help answer these questions, data from New Careers in Nursing (NCIN) were analyzed to examine the relationship of Pre-Entry Immersion Programs (PIPs) on student graduation. A total of 1,811 scholarship recipients participated in a PIP program; data from these 1,811 scholars was used for the analysis. NCIN sites were required to offer a PIP course starting in the round three funding cycle. Nevertheless, some students did not take advantage of this extra support. Also, not all students participated in every component recommended in the NCIN PIP toolkit.

The primary goal of the data analysis was to describe the differences in PIP participation compared to non-PIP participation in terms of demographic groups, perceived helpfulness of the program and its components, and the relationship of the PIP program and its components on graduation outcomes. Chi-Square tests were used to determine significant differences between nominal types of data. Two sample t-tests were used for ordinal data.

To identify which components of the PIP positively related to student graduation, various PIP components were compared. Components selected for analysis were those most commonly identified in the literature including time management, self-care strategies, study skills, Learning and Study Strategies Inventory (LASSI), test taking skills and test success, leadership development, medical terminology, assessment of writing skills, and basic mathematical skills.

Overall, the data suggests that participation in a PIP program may be associated with higher graduation rates for all students and also for Non-white participant scholars. Graduation rate for PIP participants was 93.4% compared to 88.97% for non-PIP participants ( $p=0.009$ ). Of Non-white PIP participants, graduation rate was 92.45% compared to 87.29% ( $p=0.019$ ). Withdrawal rates were also lower for PIP participants; 6.6% compared to 11.3% ( $p=0.0092$ ). This finding supports outcomes from other nursing programs offering PIP programs (Cantwell et al., 2015; Carter & Derouin, 2015; Condon, 2013; Degazon & Mancha, 2012; DeWitty et al., 2016; Rosario-Sim, 2016; Walker, 2016).

In analyzing the supportive relationship of PIP and its components, Non-white students found the various PIP components statistically more helpful than White students ( $p=0.0001$ ). No significant differences were found when accounting for economic status, however ( $p>1.0$ ).

Though the PIP program was associated with higher graduation rates and lower withdrawal rates, no individual component of the PIP program in particular was found to be associated with higher graduation rates. The most common components offered included time management, self-care strategies, study skills, test-taking strategies, Learning and Study Strategies Inventory (LASSI), basic mathematical calculation, medical terminology, and assessment of writing skills.

The results of the NCIN data and data from other studies in relation to PIP programs suggest that PIP programs may be an important part of academic support for students enrolled in accelerated nursing programs. This study suggests that NCIN PIP program was associated with higher graduation rates and a lower withdrawal rate for all students and also for Non-white students. The Self-care strategies component was found to be a significant PIP component associated with higher graduation rates. Non-white students found the PIP program components to be significantly more helpful compared to White students.

These early interventions may be important to student success and confidence. Increased diversity is needed in the nursing workforce in order to provide culturally competent quality care. Interventions that support student retention are vital to not only minority students but all nursing students. Schools working toward improving retention must consider the importance of PIP programs to help prevent attrition of minority students and support the success of all students.

Generalizability may not be possible as PIP programs are not limited to accelerated programs, nor do all programs offer the same components or topics. Additionally, nursing programs vary in size and student demographics. PIP programs also vary in length with some as short as two days and others up to 10 weeks and outcomes were measured differently. Another limitation to generalizability is that NCIN scholars also received financial support for the program making satisfaction and progression to graduation an easier pathway to success.

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## G 08 - Simulation Use to Enhance Patient Care

### Enhancing Knowledge and Retention of Infant Safe Sleep Practices With Simulation

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#### Abstract

Sudden unexpected infant death (SUID) continues to occur in the United States despite recommendations made by key organizations' establishment of infant safe sleep practices based on best evidence. These recommendations have been well publicized through a long standing national "Back to Sleep" campaign and in contemporary literature. In addition, traditional educational tools, including videos, reading materials, webinars, etc., have been used to provide healthcare personnel, i.e. nursing staff, with these evidenced-based recommendations. Yet, many nurses providing care for infants in the inpatient setting often allow inappropriate caregiver behaviors to occur that do not align with a safe sleep environment. Education in the inpatient setting is a critical and key opportunity for nurses to address learning needs of the caregiver. This situation gives the nurse the opportunity to model appropriate behaviors, answer questions, and reinforce best practices. Understanding that nursing personnel are vital members of the healthcare team to provide key education, it is imperative that nurses acquire the necessary skillset (cognitive, behavioral, and psychomotor skills) to communicate effectively with caregivers and fellow staff members and to demonstrate infant safe sleep practices in the inpatient setting. It is important that nursing students and new nursing graduates are equipped with the knowledge and communication skills as well to interact with caregivers and other, often more experienced, members of the healthcare team. Educating nursing students about infant safe sleep practices during their formal education and training may offer an advantage as these students progress post licensure into the workplace. Simulation-based learning has emerged as an effective method in healthcare and nursing education. This modality of teaching allows for the learner to demonstrate cognitive knowledge and skills performance. The simulation environment gives the participant the opportunity to react in a real-time scenario using critical thinking skills and it allows for the development of new and effective competencies in the healthcare environment. Also of benefit, and a part of simulation, is the debriefing stage of simulation-based learning. This phase allows for the learner to expand upon ideas and further enrich and reinforce appropriate and effective behaviors and knowledge. The purpose of this pilot study was to evaluate the use of a simulation experience as an effective tool to teach nursing students about safe sleep practices and the importance of establishing a safe sleep environment in the inpatient setting.

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## G 09 - Technology in Transition to Practice

### What Learning Do Students Transfer to Practice Following Simulation? A Qualitative Exploration

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#### Abstract

The use of high fidelity simulation (HFS) has quickly gained prominence as a key teaching and learning strategy in many health professions, including nursing. High fidelity simulation, or HFS, is a relatively recent 'high-tech' innovation that involves sophisticated computer-based mannequins driven by pre-designed scenarios that enable students to interact with the 'patient' as they would in a real environment. A growing body of literature reports a range of learning outcomes gained through HFS (e.g. Gegenfurtner et al., 2013; Boet et al., 2014). However, whilst it may be assumed that students will transfer what they have learned in an HFS context to the real world of clinical practice, relatively little is known about the nature of such transfer, particularly in relation to complex cognitive processes such as clinical reasoning, clinical judgement, ethical decision making etc. The question of what facilitates transfer of learning from practice settings to the workplace is not new. However, with the rise of HFS as a key learning and teaching strategy in health professional education, the 'transfer problem', as described in Baldwin and Ford's seminal work (1988, p. 63) has become an important question in this context.

Transfer of learning can be described as the process of 'applying knowledge, experience, skills and competence learned in one situation to a new situation' (Eraut, 2004, p.212). When the new situation is similar to what has been previously experienced, the transfer process can be relatively straightforward. However, when it's less familiar and possibly more complicated, transfer becomes more challenging. Salomon and Perkins' low road/high road theory (1989) is a well-known transfer of learning theory. Low-road transfer refers to situations that are relatively similar to the learning context which trigger well developed, semi-automatic responses, whereas high-road transfer relates to less familiar, more complex situations, eg. clinical reasoning, which require mindful abstraction from what has been learned and a deliberate search for connections. With the increasing scarcity and cost of clinical placements, HFS has emerged as a possible substitute for actual practice. Questions about the transferability of knowledge and skills are therefore very important.

The study was undertaken in an Australian School of Nursing that offers a Bachelor of Nursing course. The HFS learning activities in this study were undertaken utilising Laerdal's 3G SimManTM which is a life-like mannequin with embedded software that can be remotely controlled by a computer (located in a separate control room in this setting) to facilitate programmed scenarios that allow the operator to set physiological parameters and respond to learners' actions with changes in voice, heart rate, blood pressure, oxygen saturation and other physiological indicators. The HFS session followed a 3-part process which included 1) preparation and briefing, 2) the simulation/observation session and 3) debriefing. Students were briefed about the scenario, given a nursing handover and randomly placed into simulation or observer roles. The HFS facilitator, an academic staff member, ran the simulation from a control room, and did not have contact (as a 'teacher') with students during the simulation. Debriefing by the facilitator occurred as a whole group activity outside of the simulation room. The facilitator used a debriefing framework, developed by the academic staff, which the facilitator had been trained to use. The scenario had been previously pilot tested with minor revisions made as a result of the feedback received from students and academic staff.

Following ethical approval a series of focus groups was conducted with students who agreed to participate in the study (n=25). The focus group discussions were conducted in the clinical facility where students were undertaking their scheduled placements following the SIM session. To facilitate the discussions, 5 key questions were adapted from Baldwin and Ford (1988) and Kirwan and Birchall (2006). Thematic analysis was used

to identify patterns in the transcribed data yielded from the focus group discussions. Procedures adapted from Braun and Clark (2006) were used to guide the analytic process.

Three key themes emerged from the analysis: But it's not the same on prac, Opportunities to apply what we've learned and Making better connections. Whilst students identified several learning outcomes they believed had accrued from their participation in the SIM session, eg. communication with patients, they found it very difficult to identify any learnings that they had actually *transferred* to the practice setting. When prompted, some students indicated they had been 'working on their documentation skills' and 'searching out the pumps', but the predominant view was a perceived 'disconnect' between SIM participation and clinical practice. Factors that students perceived to facilitate/inhibit learning transfer to practice were identified.

An important limitation that should be noted was that this project did not have an observational component. Thus, there may have been differences between what students perceived they were/weren't transferring and what was actually being transferred. Nonetheless, the findings highlight that transfer of learning is not a straight forward process, particularly when real world practice is situated in settings that are *dissimilar* to the HFS scenarios that have been experienced. This has important implications for curriculum development and the provision of learning support in practice settings. The findings also raise new questions for research which have the potential to deepen our understanding of simulation practice and enhance students' application of their learning in the varied settings in which they practice.

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## G 09 - Technology in Transition to Practice

### ePortfolios: Collect and Reflect as Students Transition Into Professional Practice

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#### Abstract

Nursing educators continue to integrate technology in teaching strategies to enhance and sustain learning and student engagement. Incorporating the use of ePortfolios in nursing education is one such example. ePortfolios provide students with an organized structure to showcase their best work and develop the skill of reflection to bridge gaps between theory and practice (Karsten, 2017). Nursing students are able to demonstrate their professional transformation via their ePortfolio as evidenced by a matrix of knowledge and competency skills that include improved oral and written communication, critical thinking, creativity, innovation, research, interprofessional collaboration, evidence-based practice, primary and critical care, information processing and management. Nursing students' ePortfolios are viewed as an assembly of artifacts accumulated throughout their education (Birks, Hartin, Woods, Emmanuel, & Hitchins, 2016). Other than being an effective tool for reflective learning, ePortfolios are used to display students' competence, knowledge, skill level, and values to prospective employers or when students decide to pursue graduate educational degrees in the future to expand their marketability. Additionally, ePortfolios serve as a repository of students' work, memorializing highlights of their professional growth and development (Garrett, MacPhee, & Jackson, 2012).

Nursing students enter a baccalaureate program focusing solely on becoming a "nurse." In our integrative curriculum, students begin to build their ePortfolio in the semester just before completing all the general education prerequisites and when they begin to enroll in actual nursing courses (Riden & Buckley, 2016). As students complete every semester, they add evidences of coursework into their ePortfolios where connections between classroom and clinical learning are integrated into the real world using self-reflection. Pedagogical uses of ePortfolio include student-centered learning, curricular appreciation and integration, collaboration, mindfulness, reflective thinking and synthesis (Green, Wyllie, & Jackson, 2013).

ePortfolios provide students the structure and opportunity to organize, reflect, and find meaning in their educational pursuit of a baccalaureate degree in nursing. The purpose of this present study is to describe the effectiveness of integrative learning and its benefits to identifying student's self-awareness using their ePortfolios in terms of their respective transformation prior to beginning professional nursing practice.

Using a quantitative descriptive design, senior baccalaureate nursing students from an accredited nursing program were surveyed during their senior semester with regards the use of ePortfolios relative to their learning and preparation to nursing practice. The instrument was designed using the concepts of integrative and reflective learning as well as the structure and technological features of the ePortfolio. There is descriptive evidence from the survey data that students found the structure and technological elements of the ePortfolio to be intuitive and straightforward. Additionally, student-respondents admitted that the development and use of ePortfolios encouraged them to identify their strengths and weaknesses, consequently helping them to draft development plans to further enhance their professional potential (Rosetti et al., 2012). From a pedagogical perspective, 86 percent of the students responded that the ePortfolio helped them to reflect on their education, professional accomplishments, and educational success. Students reported that self-reflection in the integrative curriculum was helpful in developing their sense of identity as a nurse. Students also shared about feeling proud of their accomplishments and pleased with displaying their achievements in the form of an ePortfolio. Less than 20 percent of students reported minor issues using the ePortfolio (Andrews & Cole, 2015), e.g. flexibility in the ePortfolio design and preference for other forms of artifacts.

Overall, the development and use of ePortfolios enhanced students' learning and preparation for professional practice was positive. Its structure and technological aspects were weighed in by the students to be simple to learn and use, and included many benefits to assist them achieve knowledge, skills and preparation to becoming future nurses. Reflective learning in an integrative curriculum provided support in developing their critical thinking, evidence-based practice, mindfulness, positive attitudes and values towards nursing, other healthcare professionals and staff, and most importantly, the patients they care for. This study generated evidence that the use of ePortfolio's in baccalaureate nursing education demonstrates best practice for reflective learning.

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## G 10 - Impactful Educational Practices

### Generating and Translating Evidence to Simultaneously Impact Nursing Education and Patient Care With Undergraduate Research

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#### Abstract

Undergraduate nursing programs often focus on using external evidence to inform decisions at the patient level, which is vitally important to achieving the evidence-based practice (EBP) goals established by the Institute of Medicine (IOM, 2001) and corresponding expectations set forth by the American Association of Colleges of Nursing (AACN, 2008) and the Quality and Safety Education for Nurses (QSEN; Cronenwett et al., 2007). However, to prepare undergraduate students to take an active role in driving evidence-based change in practice, it is essential to give students an opportunity to be mentored in generating and translating evidence to inform patient care at the systems level.

This presentation will focus on the outcomes and experiences associated with an undergraduate honors research program, as an innovative way for academe and practice to collaboratively prepare students for EBP and promote quality improvement for patients at the same time. Students will present how they expanded their EBP knowledge by identifying a clinical problem and then working collaboratively as a team, similar to a task force in practice, to gather and analyze data. Further, students will share how they learned to evaluate results in context of the clinical setting and external evidence, and develop implications by working collaboratively with peers, faculty, and practicing nurses. Students will present findings from their research on perioperative hypothermia and associated complications, as they speak directly to the significance of practice problem and the process of learning to use evidence to impact patient care at the systems level.

Perioperative hypothermia is an ongoing problem in practice, especially for female patients (Cunha Prado, 2015), older than 60 years of age (Torossian et al., 2015), administered combined anesthesia (Cunha Prado, 2015), undergoing a total knee or hip replacement (Frisch, Pepper, Rooney, & Silverton, 2017), and/or a longer stay in the operating room (Cunha Prado, 2015). The occurrence of perioperative hypothermia can have a significant impact on patient recovery as this has been associated with serious complications such as coagulation dysfunction, delayed recovery from anesthesia, impaired wound healing, and surgical site infection (Ying, et al., 2014).

Students will describe how results and corresponding implications of their study have informed policy change and education to impact patient care. Finally, students will describe how the experience impacted their value for EBP. Faculty will present how to coordinate successful projects with one or more honors students, focusing on topics in nursing education and practice. Further, faculty will discuss the many roles of the mentor in facilitating a positive experience from conceptualization to dissemination of results. Guidelines, which promote consistent expectations for faculty and students in relation to learning, research, dissemination, and support, will also be presented.

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## H 01 - Promoting Civility

### Incivility in Academic Environments: If You See Something, Say Something

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#### Abstract

This presentation entails a review of current literature on incivility in academic environments, risk factors, effects, and strategies for its reduction. The focus is at the broad institutional rather than disciplinary level., though the American Nurses Association developed a white paper on workplace incivility and bullying in 2015.

Bullying is a focus of the Centers for Disease Control and Prevention because it is associated with adverse health effects in victims. Incivility is defined as a pattern of rude or discourteous behaviors. Bullying is a pattern of intentional, more frequent and intense, repetitive interactions usually by one person against another, while mobbing is bullying that is perpetuated by a group in a particular limited environment. Bullying can entail physical, verbal, or relational harm or property damage. Victims but also witnesses to bullying demonstrate adverse effects.

The occurrence of incivility, bullying and mobbing in academic environments can be traced back to the origins of modern universities 1000 years ago. It has increased in recent years related to increased competition, decreased resources, and corporatization in academic environments.

The personal and organizational costs of a culture of incivility are demonstrable. Organizational risk factors have been identified in an extensive body of research literature, and academic organizations are regarded to have high risk. This issue is integrally related to and cannot be considered separately from discrimination and harassment. The process of tenure is a known factor, as is the hierarchical structure of academic organizations. Faculty, staff, administrators, and students are both perpetrators and victims. Personal and institutional costs are great. Organizational strategies for reducing the likelihood of incivility are described, and personal strategies are considered. The literature is conflicted on the benefits to individuals of reporting. However, there is no good reason for organizational tolerance of incivility.

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## H 01 - Promoting Civility

### Peer Training Using Cognitive Rehearsal to Improve Incivility Recognition and Response

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#### Abstract

**Introduction:** Nursing students must have effective education and practice opportunities to prepare for solving real world problems to best prepare for entering professional practice. Incivility, lateral violence, and bullying behaviors are frequently endured as a “rite of passage” for new nurses (Condon, 2015; Szutenbach, 2013). Lateral violence (also termed horizontal violence) includes uncivil behaviors directed toward peers (Griffin, 2004; Roberts, 2015). It thus seems feasible that use of peer training may have benefit as an early and necessary educational method (McKenna & French, 2011). Collegiality and teamwork are critical to patient safety (Griffin, Bartholomew, & Robins, 2016), so there must be a professional responsibility to foster these accountabilities in nurses and nursing students. As incivility may be covertly experienced in clinical settings, there are limited venues for reflective response training. Educational experiences designed to promote incivility recognition and skilled response are essential (Clark, Ahten, & Macy, 2014) and cognitive rehearsal methods offer a simulation method to experientially practice critical responses when not under duress.

A project was developed to increase nursing students’ awareness of incivility, provide communication techniques to respond appropriately, and reinforce positive behaviors that promote a culture of safety. Effectiveness of a one-hour interactive and student peer-led civility training was compared to a three-hour didactic/interactive training provided by a nursing incivility expert. Key components as espoused by Clark, Ahten, & Macy (2014) including problem-based learning scenarios to foster experiential learning were included in the design. Use of cognitive rehearsal and different level peer training were also design elements. First semester (sophomore) baccalaureate nursing (BSN) students and the final semester (senior) students in upper division nursing at a public university in the southeastern United States served as participants.

**Method:** Two training methods were compared for effectiveness. The first method involved training provided by a nursing incivility expert consisting of two-hour didactic followed by a one-hour interactive session using cognitive rehearsal. This session was provided for senior BSN students. The introduction of the training included a history of incivility among nurses and theoretical underpinnings. Using examples of experienced incivility from students, the trainer encouraged students to form a response utilizing the prompting cards provided (Griffin, 2014). As the students practiced, the trainer provided feedback to the students.

The second training method involved a one-hour peer training provided by the previously expert-trained seniors for sophomore students. Working in teams, senior students conducted one-hour interactive training using cognitive rehearsal with prompting cards for the sophomore nursing students. Prompting cards included 10 types of incivility experiences with suggested responses for pre-rehearsal. Incivility situations included nonverbal innuendo, verbal affront, undermining activities, withholding information, sabotage, infighting, scapegoating, backstabbing, failure to respect, and broken confidences.

**Evaluation:** Two surveys utilizing a 5-point Likert rating scale were administered to evaluate effectiveness of education based on Kirkpatrick’s Four-Level Training Evaluation Model (Kirkpatrick & Kirkpatrick, 2006). The first survey, containing six statements, was administered immediately following each method of training session and assessed the first two levels of Kirkpatrick’s model (Level 1 - Reaction and Level 2 – Learning). A second survey, containing five statements, was administered to both groups at the end of the semester to evaluate Kirkpatrick’s model (Level 3 - Behavior and Level 4 –Results). Open-ended comments were also encouraged in a comment section.

Results:

**Quantitative Data Analysis:** Descriptive statistics were evaluated using both survey results to compare responses between groups on both survey items (Table 1 and Table 2).

Table 1: Comparison of Satisfaction & Learning between Expert and Peer Training

Training...	Kirkpatrick Level	% Rating Senior Students (n=20)	% Rating Sophomore Students (n=58)
Was relevant to a student nurse	1	95%	97%
Was helpful in identifying uncivil behaviors	2	100%	98%
Enhanced their understanding of the effects of uncivil behavior	2	100%	98%
Helped in the realization of their role in promoting a culture of civility	2	90%	93%
Provided skills to help respond to incivility	2	100%	93%
Made them more likely to appropriately respond to incivility as a result of the training	2	75%	90%

Table 2: Comparison of Application & Results between Expert and Peer-Training

Training resulted in...	Kirkpatrick Level	% Rating Senior Students (n=31)	% Rating Sophomore Students (n=42)
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More awareness of incivility/lateral violence in personal/professional experiences	3	90%	93%
Practicing skills learned in training when incivility is anticipated	3	71%	71%
Using the skills learned in training to respond to incivility	3	58%	69%
Noticeable decline in incivility incidence in school of nursing this semester over previous semesters	4	55%	57%
More positive attitude about importance of promoting civil behavior and prevention of incivility/lateral violence	3	90%	93%

Inferential statistics using SPSS 22 were completed. To evaluate expert versus peer training on satisfaction/learning summed scores, an independent-samples t-test was used. A significant difference in scores for peer training [M = 27.53, SD = 3.37] and expert training was found [M = 25.70, SD = 2.08;  $t(53.8) = 2.86, p = .006$ ]. The magnitude of the differences was .096, between moderate (.06) and large (.14) effect size (Cohen, 1988), with peer training accounting for 9.6% of the variance.

To evaluate the potential influence of the expert versus peer training on application sum scores, again, an independent-samples t-test showed no significant difference in scores for peer training [M = 20.69, SD = 3.31] and expert training [M = 19.55, SD = 3.48;  $t(77) = 1.43, p = .158$ ]. These two analyses indicate that peer training provided to sophomore students was potentially perceived as more satisfying with higher learning achieved than the three-hour didactic/interactive training for seniors provided by an expert trainer, yet peer training was just as beneficial for application of training.

**Qualitative Data Analysis:** Participants' written comments qualitatively analyzed by the research team identified four consistent themes for both groups: 1) interactive training; 2) role play; 3) incivility recognition; and 4) prepared responses. The participants enjoyed the interactive method used to complete the training. Student statements regarding these themes are provided to illustrate themes further.

**Discussion/Conclusions:** Results of descriptive, inferential, and qualitative statistics support these two training methods for incivility. These findings are consistent with the literature indicating that peer learning contributed to decreased anxiety (Kurtz, Lemley, & Alverson, 2010; McQuiston & Hanna, 2015, Stone, Cooper, & Cant, 2013) and increased satisfaction (Stone, Cooper, & Cant, 2013). Peer trainers conveyed meaningfulness and value of the training through comments such as, "We wish we had gotten this training when we were sophomores." and "This training would really have helped me when I was starting upper division." Peer trainers were able to share real situations from their own clinical experiences, providing guidance on how they wish they had resolved previous situations with the new knowledge they had achieved.

Peer bullying continues to be high at 48% (Carpenter, 2017), even with national data and stated key initiatives (ANA, 2014) for improving incivility. Interactive peer training can be a powerful way to prepare nursing students to recognize and respond to incivility in the healthcare setting. Peer training and cognitive rehearsal also affords other benefits such as leadership and confidence to the trainers and may have potential to establish a zero tolerance model within a nursing program or healthcare community over time (ANA, 2015). Finally, perpetual peer training after initial expert training may provide an expert system for civility training cost-effectively with the added benefit of self-perpetuating high quality student outcomes.

**Limitations:** This study was confined to one nursing program in the southeast and needs to be replicated. Longitudinal study of program perpetuation would be potentially beneficial in determining whether learning gains are sustained. The training methods were provided to two different levels of students within a nursing program, therefore prior knowledge may have influenced learning or data results.

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## H 02 - Disaster-Based Simulation

### Using a Disaster-Based Simulation With Senior Nursing Students to Impact Self-Efficacy in Clinical Decision-Making

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#### Abstract

**Introduction/Background:** Nursing programs are unable to meet the demands of the nursing shortage due to financial constraints, lack of faculty, and limited clinical space. These issues result in the inability of programs to provide students with essential learning opportunities to meet course outcomes, especially the development of clinical decision-making skills. There is a need for innovative strategies to meet these demands. The literature shows that simulation is effective in promoting clinical decision-making, however, the use of a disaster-based simulation to impact the skill was not examined in previous studies.

**Research Objectives:** The purpose of this project was to examine the impact on self-efficacy pre and post disaster simulation among senior nursing students at a large nursing college.

**Methods:** The project design was a descriptive study with a quantitative, non-experimental, retrospective, and pre- and posttest design. A retrospective methodology examined the data obtained from a quality improvement project. The target population included nursing students who participated in the disaster simulation. The sample included N = 23 students who participated in the project: senior level students in their senior course, Community Health Nursing. The majority of students were adult learners, different ethnicities, pursuing a second career in nursing, low-to-middle income homes, and ranged from single parents to married. Some students brought prior experiences in healthcare to the program. These experiences included Emergency Medical Technician, Licensed Professional Nurse, and Certified Nurse Assistant. Eligibility for inclusion included first time enrollment in the Community Health Nursing course and no previous experience in healthcare as an Emergency Medical Technician (EMT), Certified Nurse's Aide (CNA), Patient Care Technician (PCT) or Licensed Practical Nurse (LPN) working in a critical care setting such as the Emergency Department or Intensive Care Unit. Students who were repeating the course and had previous experience in healthcare as an EMT, CNA, PCT, or LPN in a critical care setting were excluded from the project. By surveying this population, this author identified the perception of the students' self-efficacy in decision-making after participation in the scenario. The goal was for the student to feel more empowered and self-confident in their decision-making skills while caring for their patients. The General Nursing Self-Efficacy Scale consisting of a 5-point Likert Scale was used to survey the students enrolled in the Community Health Nursing course and to collect data to determine the effect participation in this simulation had on their self-efficacy. A proxy, the lab manager, administered the survey via an online link; she did not have any interaction with students or impact on their grades. The pretest was administered two weeks prior to the simulation experience. The posttest was administered two weeks after the simulation. Comparisons between pre- and post-simulation survey scores were made using the Wilcoxon signed-rank test.

**Results:** Nine of the pre-simulation survey responses were "Uncertain" or "Strongly Agree," which left little room for measurable improvement following the simulation training. Statistical significance noted to Question 12 following training-"In a general patient context, when facing a difficult case, I am certain I can make the right management decisions" (p=0.008). The intervention and study results indicate the significance of utilizing a disaster-based scenario simulation to improve senior nursing students' self-efficacy in making the correct management decision in difficult situations. The experience which required them to make quick decisions and manage the care of injured patients, led them to feel more empowered and confident in making the right decisions. The repetition of experiences contributes to the mastery of making clinical decisions so when the graduate is presented with a similar case, he or she will be confident that they are making the right decisions for their patients.

**Conclusions:** The findings show that like traditional clinical experiences, simulation can be used in nursing education to give students adequate experiences needed to foster self-efficacy in clinical decision-making skills. A disaster-based simulation can be used to improve the senior nursing student's self-efficacy in making the right management decisions in a critical situation.

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## H 02 - Disaster-Based Simulation

### The Effectiveness of Educational Training and Simulation on Readiness to Respond to a Traumatic Event

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#### Abstract

Due to the growing number of mass shootings in the United States, students should be prepared for a catastrophic event such as a multiple victim mass shooting. Students need to be aware of the increased incidence of these tragic events and be ready to respond to the aftermath if an event should occur. They require the necessary skills to respond accurately and rapidly to an emergency situation when faced with a traumatic event. Exposure of individuals to education on proper responses and providing hands on experience with a shooter scenario could decrease the morbidity and mortality of the victims awaiting emergency response. Emergency situations, such as a mass shooting, can be mimicked using simulation. This presentation will discuss the use of a collaborative educational video and a multiple standardized patient shooter simulation scenario (including victims and family members) using theater students to enhance emergency preparedness for undergraduate nursing and family relations students. This presentation will discuss the development of the educational video and standardized patient simulation to improve the student's learning experience. This presentation will display data from a mixed-method study on student perceptions of the educational video and standardized shooter simulation and whether this training enhanced their readiness to respond to a multiple patient traumatic event. The participants completed survey tools evaluating their perceived readiness to respond to a crisis event at three separate intervals. The participants completed a survey tool including demographics and a quantitative readiness rating score at the beginning of data collection. The participants viewed the educational video and then completed a survey with a quantitative readiness rating and also completed qualitative questions regarding the impact of the educational video on his/her readiness to respond to a crisis. The participants were then facilitated through the standardized patient simulation experience. The simulation experience included multiple trauma and medical patients and their families in the aftermath of a community shooting. Participants were expected to maintain safety, and provide care and support to the victims and families in the aftermath. Each participant then completed a final survey after experiencing the standardized patient shooter simulation which included the quantitative readiness rating and qualitative questions regarding readiness after the educational video and simulation experience. This presentation will also provide an overview of the benefits of a training module using an educational video and a standardized patient simulation scenario to educate emergency readiness to undergraduate nursing students.

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## H 03 - Doctoral Education Learning

### Mentoring in Research Doctorate Nursing Programs and Students' Perceived Career Readiness

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#### Abstract

**Introduction:** Research doctorate nursing programs are expanding in an effort to double the number of doctoral-prepared nurses by 2020 (IOM, 2011). But, whether students are ready for their subsequent careers in nursing science is not clear. Faculty play a key role in preparing students through advising and mentoring. However, there is little empirical evidence of the specific contributions of mentoring to development of doctoral nursing students and their career readiness. Thus, the National Mentor Study identified characteristics and practices of nursing PhD students and their advisors in the United States and examined associations between mentoring relationships and career readiness.

**Methods:** We conducted a nationwide descriptive, cross-sectional study of PhD students using an electronic survey platform. Deans and Program Directors of the 129 research-focused doctoral nursing programs identified by the American Association of Colleges of Nursing (AACN) were contacted and students from 64 schools responded, which yielded 380 PhD student study participants. They reported: 1) demographic, academic, and mentee characteristics 2) mentor characteristics and practices 3) self-proficiency based on self-rating of 20 scientific skills and competencies 4) synchronization between desired and actual advising style and 5) perceived career readiness. (Advisors were not invited to participate in the survey.)

Mentee characteristics included participant reports of how they felt their advisor perceived them on motivation, organizational skills, dependability, and openness to criticism. Mentoring characteristics included participant ratings of their advisors on being expert in their field, accessible, approachable, supportive, and a good listener. Mentoring practices included participant reports of advisor practices related to scholarly productivity, career planning, and emotional support. Desired and actual advising style was reported by students and degree of synchrony was calculated. Perceived career readiness was a single item rating on a 1 to 100 scale.

The career readiness score was dichotomized and study participant characteristics were examined according to their career readiness classification. We performed simple and multivariable logistic regression to examine the relationship between career readiness and important independent variables, adjusting for demographic and academic variables.

**Results:** Selected descriptive findings - About half of the participants (51%) planned to seek research and teaching positions post-graduation. Eighty-one percent of student participants worked. The average work load of those students was 32 hours per week. Ninety percent of all participants cared for dependents or had other responsibilities outside of school.

A minority of respondents (16%) knew of published guidelines on mentoring for their school and 60% were not sure if such guidelines existed. Forty-five percent of students reported that their advisor fulfilled both advising and mentoring roles. At least 70% of student participants agreed or strongly agreed that their advisor would rate them as having desirable mentee characteristics. And at least 64% of student participants agreed or strongly agreed that their advisor had desirable mentor characteristics. There was a wider range of student participant ratings of their advisor on mentoring practices (22-67%). For example, at the low end of the range, 22% of students agreed or strongly agreed that their advisor helped them draft their curriculum vitae and at the high end of the range, 67% of student agreed or strongly agreed that their advisor discussed concerns about their research. Twenty-seven percent of students reported synchrony between their desired advising style and the actual style of their advisors; 55% of students preferred a hands-on advisor and 7% desired a hands-off style. The mean perceived career readiness score was 70.5 22.7 (range: 0-100), and a majority of students (86.8%) had a score of at least 50.

Logistic regression findings - In simple (OR 1.31,  $p=0.001$ ) and multiple logistic regression (OR 1.29,  $p=0.027$ ), when advising style was in synchrony with student advising preference, students had a greater likelihood to perceive that they were ready for their desired career. Self-proficiency was also significantly associated with perceived career readiness in both simple (OR 1.07,  $p<0.001$ ) and multiple logistic regression (OR 1.06,  $p<0.001$ ); wherein, the higher the self-proficiency score the more likely the students were to perceive that they were ready for their desired career. Mentoring practices, student age, and how far along students were in their PhD program were all significantly associated with perceived career readiness in simple logistic regression, but not in multiple logistic regression. However, because our sample was insufficiently powered to detect these relationships, we are unable to say conclusively that the relationships do not exist.

**Discussion:** We found that while students rated themselves and their mentors highly for their mentoring relationship, there was uneven mentoring on objective tasks. For example, our results suggest that they receive limited support with preparation for their job search, and more support in monitoring progress, providing performance feedback, and discussing concerns about the student's research.

As schools of nursing and funding mechanisms seek to shorten the duration of PhD programs, the goal of providing thorough mentoring for students may be even more difficult to achieve. Developing research and teaching skills for research-focused faculty positions takes time. One solution may be to discuss mentoring topics in groups, such as in required seminars for PhD students. After discussing the topic in a group, students can seek more detailed discussion of specific topics with their advisor and/or mentor. Written guidance would also help students identify topics to raise with their mentor proactively. Without guidance, mentoring interactions may focus on urgent matters instead of longer-term issues.

Our findings suggest a complex relationship between mentoring and career readiness for PhD nursing students. Synchrony between desired and achieved advising style (i.e., hands-off and hands-on styles), and self-proficiency in scientific skills and competencies were shown to increase the

likelihood of career readiness. Mentoring practices, student age, and duration the student was in the program may also have an influence on career readiness even though our study failed to demonstrate that these factors improve the odds of career readiness. These factors may, however, influence the student's perception of the quality of the mentoring relationship. Other factors may also play a role, such as the degree to which students work and fulfill responsibilities outside of their education. Mentoring that includes discussion of personal problems may help support students with personal problems that result from these additional demands.

The 2001 IOM report calls for the preparation of many more doctoral-prepared nurses to fill the nurse faculty gap. Our study found a substantial proportion of students plan to seek research and teaching positions in an academic setting. For those students to obtain positions, mentors will need to address broad topics such as a strategy for their job search, and specific skills, such as curriculum vitae preparation and interviewing skills.

**Implications:** The findings support the importance of mentoring and thus, management decisions at the level of university or school of nursing should consider basing enrollment targets on a mentor-to-student ratio that optimizes high quality mentoring. Considering mentoring in management decisions could inform hiring plans, program growth targets, and budget projections.

Developing, disseminating, and promoting guidelines on mentoring could help faculty and students understand the importance, characteristics, and practices of mentoring while simultaneously establishing mentoring norms for faculty and students.

Although the study only included participants from the United States, the findings may relate to the universal need for effective mentoring that is important globally.

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## H 03 - Doctoral Education Learning

### Hybrid Teaching in Graduate Education: Optimizing Virtual Engagement to Enhance Contextual Learning in Doctoral Students

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#### Abstract

Hybrid learning, also referred to as blended or mixed-mode learning, is a technique that combines traditional face-to-face classroom instruction with newer technology mediated teaching learning modalities (Alammary, Sheard, & Carbone, 2014). It has been utilized in K-12 as well as institutions of higher education to provide a transformative educational experience that fosters deeper understanding while promoting the acquisition of communication and information management competencies (Jamison, Kolmos, & Holgaard, 2014; Sung, Hwang, & Chang, 2015). While hybrid learning is not a new concept, expanded use of teaching technology can greatly enhance graduate nursing education (Potter, 2015). Use of hybrid learning strategies in doctoral education has not only served as a transformative instructional approach, but also as a vehicle for enhancing contextual learning (Hsu, Hamilton, & Wang, 2014). By engaging in hybrid learning experiences students are able to meaningfully integrate course concepts into their development as nurse leaders. In the changing landscape of academia, student consumers expect course experiences that are flexible and individualized to learner characteristics. Hybrid teaching-learning strategies have emerged as a transformative modality to provide both students and instructors with the opportunity to manipulate the time, space, and place during which learning occurs while valuing the inherent nature of intrinsic student characteristics (Liu et al., 2016). As a result, enhanced contextual learning has been realized by uniquely blending didactic instruction with virtual engagement.

The presentation will review how hybrid learning strategies have been utilized in doctoral courses with a particular focus on outcomes relative to enhanced contextual learning. Additionally, adaptable strategies for graduate and undergraduate courses will be reviewed. The presentation shall benefit both novice and experienced educators responsible for providing didactic instruction to undergraduate and graduate students. Program administrators shall also benefit from strategies discussed as they seek to refine creative program offerings. After attendance, participants will be provided with information about various hybrid frameworks as well as tangible implementation strategies to promote constructive learning.

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## H 04 - Innovations for the APRN

### Democratizing NP Student Education: Promoting Student and Faculty Participation in Flipped Learning

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#### Abstract

**Introduction:** Nurse leaders have outlined the requirements for nurse educators to engage and assess students as they apply and synthesize knowledge over time and across various clinical scenarios. Flipped learning is a method of student-centered learning that holds much promise in addressing this mandate. Flipped learning involves instructors developing and providing content to the students prior to class and then using class time for evaluation of knowledge, comprehension, application, and synthesis. There is encouraging but limited evidence about flipped learning in nursing compared with other health care disciplines. A range of challenges to flipped learning have been identified, however questions related to determining appropriate motivation and incentives for students to come to class prepared have not been explicated. This study sought to inquire about this challenge in addition to exploring student and faculty perspectives on flipped learning. In addition, student researchers working on the project explored the perspectives and experiences of “minority” graduate nursing students related to flipped learning. Philosophies and practices of emancipatory nursing along with Black feminist thought provided the conceptual frameworks for this research.

**Method:** The graduate nursing faculty of a family nurse practitioner program implemented flipped learning in research and clinical courses over two semesters and then commenced an exploratory, insider action research study during the subsequent semesters, as the flipped learning approach expanded into more courses. Faculty data included instructor observation, reflective journaling, debriefing sessions and dialogical development of thematic findings. Student data on flipped learning was obtained from focus groups that was coded and analyzed using a critical constructivist grounded theory methods approach. Using Doris Boutain’s, “Identity, Research, and Health Dialogic Interview Format,” student researchers independently reflected on multiple aspects of their identity as “minority women”, in relationship to flipped learning, and then compared and contrasted their reflections dialogically.

**Findings:** Faculty found the flipped learning approach to be a significant improvement over traditional lecturing, particularly as it provides opportunity for continuous assessment and feedback. Faculty determined in class case studies – followed by brief multiple choice quizzes, with a meaningful point value, encouraged students to come to class prepared. On the student front, overwhelming approval of the flipped method prevailed. Students identified numerous advantages such as (1) flexibility and personalizing the learning experience related to lifestyle/roles, (2) autonomy related to being in control of learning and improving time management, (3) competency related to building confidence and dispelling myths of passivity, and (4) promoting student and instructor negotiation and preparation. Students strongly prefer both audio and slide content material prior to class. Generative tensions related to authority and control of the courses surfaced. Flipped learning is supportive and culturally congruent with a range of identities.

**Discussion:** Flipped learning is an action oriented approach to learning that holds potential for “democratizing” the classroom and democratic professionalism. Graduate nursing faculty continue participatory practices of peer evaluation, debriefing, and, dialogue to share knowledge and experience of flipped learning approaches so as to continue to evaluate and improve teaching and learning methods in the graduate nursing program. Exploring “minority” identity in flipped learning and the relationship to nurse practitioner education, practice, social justice and health equity will also be discussed.

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## H 04 - Innovations for the APRN

### Growing Your Own APRNs in Rural and Underserved Communities

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#### Abstract

Rural healthcare leaders are increasingly tasked with the responsibility of providing health access to 21% of the national population with only 10% of the provider workforce (Sonenberg, Knepper, & Pulcini, 2015). Provider recruitment strategies offering loan repayment have had some success in the short term, but are less impactful at creating a long-term retention rate, unless the providers have an existing connection to either the community in which they are working or rural healthcare (Renner et al., 2010). Responding to this data, a demonstration project and study has been created in Colorado to test a rural focused “grow your own” advanced practice registered nurse (APRN) model. The model is designed to recruit RNs from inside rural communities to return to school and become primary care providers within those communities upon graduation. The project offers stipend support with assistance in the school application process, educational support, clinical and job placement assistance, and monthly coaching. Additionally, communities are asked to provide matching funds to support the APRN students with a goal of creating a self-sustaining model that will build a continuous pipeline of APRN providers. This strategy avoids the costly need to recruit and relocate providers who have no ties to the community.

Thirty-six nurses from rural and underserved communities in Colorado who had opted to return to school and become APRN providers in their communities were invited to participate in taking the Nursing Community APGAR Questionnaire, a validated instrument used to measure rural nurse recruitment and retention. Thirty-four participated in the survey, which is a 94% response rate. The survey indicated that rural nurses can be recruited from within their communities to become APRN providers when they are given added support, including financial assistance, employer flexibility to return to school and certainty that policies will allow them to practice at the top of their education and scope. An unexpected outcome of the study indicates that when APRN schools collaborate with rural communities to create educational programs aimed at educating rural and underserved providers, local nurses are very eager to participate. Building a cohort of rural nurses who may not have considered themselves candidates to become APRNs in a traditional program, can be recruited and successfully complete school if educational institutions are willing to utilize holistic admission techniques (Glazer et.al, 2016). Additionally, creating a hybrid educational process allowing rural nurses both face to face didactic education in combination with distance learning can create an avenue for school admission for these nurses, allowing them to generally stay in their communities while attending school. Doing so supports rural communities in building a local provider workforce using local talent without the need to relocate outside providers to the area. The early outcomes of this model suggest that with financial support, employer support and community/university collaboration, rural and underserved areas could create an internal and sustainable pipeline of future providers to care in their communities.

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## H 05 - Medication Administration in Nursing Education

### Teaching Students to Administer Medications: Collaborative Supports Are Critical

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#### Abstract

Students administering medications make errors and near misses; rarely are published rates available (Cooper, 2014). Nurses are expected to safely administer medications, but medication errors occur, and sometimes at alarming rates (Bush, Hueckel, Robinson, Seelinger & Molloy, 2015). Medication administration is a routine part of a nurse's responsibility, thus teaching strategies that effectively prepare students for this task are essential. Nursing programs are content saturated, thus expanding the amount of time dedicated to medications is often not feasible. This participatory action research study solicited students' and instructors' reflections on factors that increased students' learning and safety practices for medication administration. The impact of the clinical learning environment for student nurses learning to administer medications is an area that needs to be further explored (Sulosaari, Kajander, Hupli, Huupponen & Leino-Kilpi, 2012).

**Methods:** This research was guided by the Participatory Action Research (PAR) methodology and explored (1) teaching methods that promote student learning and safe medication administration, and (2) influences to student nurse medication errors and near misses. Student nurses and clinical instructors from years three and four of a Bachelor of Nursing program participated in this study. We used a concurrent mixed methods design, and collected data about safe medication administration and medication teaching and learning via questionnaires from students (n=77) and instructors (n=11) as well as an instructor focus group (n=3). Analysis was conducted using Mann-Whitney U tests for quantitative results. Thematic analysis and triangulation were used for qualitative findings.

**Findings:** Accounts of student and clinical instructor experiences in the clinical setting emphasized the significance of collaborative practice to safe medication administration by student nurses. Instructor

Students and instructors rated the clinical nursing instructor as having the most positive influence on patient safety and student learning. Students reported supportive instructors increased the chances of them asking for supervision and improved patient safety. Students found it helpful when the instructor had clear expectations, quizzed students about the medications and tested their knowledge.

**Peers:** The students reported peers as the second most positive influence on learning and safety. Talking to a peer about medications provided students an opportunity to think further about medications and to build their clinical reasoning and critical thinking. While clinical instructors considered peer interactions positive, they did not rank peer learning as highly as the students themselves did.

**Staff nurses:** Participants reported that the staff nurses have a positive impact on student learning and patient safety. The staff nurses were aware of contextual factors impacting medication requirements and helped the students to link concepts about the patient and the medication. While the instructors rated the staff nurses highly, concerns were stated about student nurses learning unsafe shortcuts. Poor communication between the student and the staff nurses was the leading cause of medication errors in the study.

**Conclusion:** Collaboration between the student and the instructor; the student and their peers; the student and the staff nurse; and the staff nurse and the instructor are all important to optimize student learning about medications and to enhance patient safety. Elements of the clinical environment that contribute to complexity for teachers and learners include noise, interruptions, communication challenges and time constraints. Medication administration is cognitively complex for students because they must integrate a developing knowledge about medications, the patient's history, the patient's current clinical situation and possibly changing condition and other factors to come to decisions about medications. During collaboration, instructors, peers and staff nurses can be the guide a student needs to make the cognitive connections required for learning for clinical decision making.

A lack of collaboration is associated with medication errors. If the student and the staff nurse have tension in their relationship resulting in poor communication, medication errors are more likely (Valdez, Guzman, & Escobar-Chua, 2012). Students are more likely to report an error if they do not fear a negative reaction from the clinical instructor (Gorgich, Barfroshan, Ghoreishi & Yaghoobi, 2016). Faculty development of supervision skills can increase dialog among clinical instructors (Perry & Koharchik, 2014). Valdez et al. (2012) stated "while the emphasis on knowledge of pharmacology and medication safety is essential, equal importance should be given to system failures that impact patient safety. Accordingly, inter-professional partnership should be encouraged so that staff nurses, clinical instructors and other members of the health care team can reinforce the link between theory and practice." (p. 225)

The close relationship with learning and patient safety demonstrates that improvement in student learning will have a direct benefit to patients in the short and long term. One strategy for improvement is to build on the current successes of collaboration and to close the gaps in collaboration that we have found leads to medication errors. Students utilize peers and staff nurses as important resources. Faculty members can build on these relationships by developing teaching strategies that formally and intentionally promote peer to peer and student to nurse collaboration.

Transitioning the student from the clinical instructor as supervisor and educator to staff nurse or peer collaboration for medication administration may improve learning and patient safety. Promoting purposeful collaboration for students will also help to build a collaborative skill set to bring forward to future interprofessional practice opportunities.

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## H 05 - Medication Administration in Nursing Education

### The Lived Experiences of Undergraduate Nursing Students Learning Drug Dosage Calculation

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#### Abstract

**Problem:** Competence in dosage calculation represents a challenge that seems to be almost insurmountable for nurses as well as nursing students. The lived experiences of nursing students learning drug dosage calculation have not been explored for description and interpretation.

**Purpose:** The purpose of this study was to gain more insight about undergraduate nursing students' lived experiences learning medication dosage calculation.

**Sample:** The purposive sample consisted of 11 participants ( $N = 11$ ), who were a group composed of 82% females ( $n = 9$ ) and 18% males ( $n = 2$ ). They were at different levels of their nursing education from three universities' nursing colleges located in South Florida.

**Methods:** A purposive sample was selected to investigate the following question: What are the lived experiences of undergraduate nursing students studying medication dosage calculation? Data were collected through face-to-face semi-structured interviews, which the researcher transcribed verbatim, and the participants reviewed for validation. The combined interpretive and descriptive method of van Manen guided the characteristics of the thematic data analysis conducted to determine the findings.

**Results:** The related themes of signifying, repeating, analyzing, maintaining consistency, verifying, and the overarching theme of assuring safety emerged as the essence of the participants' lived world of learning drug dosage calculation.

**Conclusions:** This study contributed, to some extent, to filling the empirical gap identified in the literature review. These participants gave rich, in-depth accounts of how they embodied drug dosage calculation in order to attain competence that they need to administer correct dosage of medications to their patients.

**Implications for Nursing Practice and Education:** Several obstacles in nursing practice are of great concerns in the health care continuum. Access and opportunities for clinical applications conducive to learning are quite challenging. This is mostly due to limited availability of clinical sites. Participants in this study explained that the unit dose system and the computer system of documentation limit opportunities to apply what they learned in the classroom and assignment activities. Encouraging students to verbalize their concerns with the dynamics of the clinical areas facilitates nursing instructors to redirect student attention to what is appropriate. Creating opportunities for the students to practice calculating drug dosage at various levels in the simulation classroom can supplement for what is missing in the clinical settings. Potential for drug dosage errors is a reality that is preventable. The effects of such errors can be detrimental to patients, their families, health care facilities, health care providers, and the community. Errors can lead to emotional anguish and costly malpractice lawsuits. Students need to learn the different factors in the health care environments that can lead to confusion, which can impede their critical reasoning skills needed to accurately calculate dosage problems. The clinical instructors play an important role in addressing the gaps observed between education and practice. To narrow the gap in the medication administration process is to consistently reinforce in the clinical settings the safe medication practice learned in the classroom, and to be creative in finding opportunities in the clinical settings for adequate knowledge application.

**Implications for Nursing Research:** Investigating the experiences of nursing students in learning medication dosage calculation has, in a small way, contributed to the reduction of the paucity identified in current literature for this genre of research. Thus far, empirical studies conducted did not investigate the phenomenon in the same contexts as this hermeneutic phenomenological study did. The findings of this study are representative of the participants' perspectives on learning drug dosage calculation. The researcher, by being immersed in the narratives of these nursing students, was able to gain knowledge that can lead to other studies to further develop nursing as a science and an art. Research generates crucial empirical evidence for the development of safe practice in a challenging patient care delivery system. Education of nursing students in learning drug dosage calculation skills needs to be further explored to determine other possible factors influencing learning outcomes.

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## H 06 - Nursing Student Health Assessment Innovations

### A Comparison of Instructional Methods for an Undergraduate Nursing Health Assessment Course

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#### Abstract

With the emphasis on the ability of nursing students to apply knowledge learned, new classroom designs are being implemented to ensure student success. Traditional teaching modalities consisted of lecture and regurgitation of knowledge. Today, faculty are implementing a flipped classroom design as a pedagogical tool to enhance learning through increased faculty and student engagement (Paterson, 2017; Smith, 2017; Rotellar and Cain, 2016). Flipped designs have also been shown to promote higher-order thought processes and reasoning skills in English as a second language students (Kim, Park, Jang, and Nam, 2017). Some studies have shown no difference in student grades or level of student satisfaction with flipped classroom design vs traditional lecture based design but suggest that intensity of the course has a factor (Whillier and Lystad, 2015). Students are often resistant to change from traditional methods of instruction and sometimes find individual learning of content difficult without the face to face instructor contact (Telford and Senior, 2017). An additional method to integrate technology use in a health assessment course is the use of virtual patient technology which provides a comprehensive learning experience in a safe environment and engages students to develop their assessment and documentation skills. The combination of flipped classroom design with virtual patient experience has been shown to allow for a personalized learning experience that promoted higher-level learning in pharmacy students in a required therapeutics class (Lichvar, Hedges, Benedict, and Donihi, 2016).

This study compared outcomes of three different teaching modalities in an undergraduate health assessment course. The modalities were as follows: traditional lecture in a traditional classroom setting (traditional section); flipped class in a traditional classroom setting (flipped section); and flipped class in a fully technology integrated classroom (flipped and integrated section). Course content was identical across the three sections. In the traditional section, students completed preparatory readings followed by lectures in class and then completed a virtual patient module assignments at home. In the flipped section, students completed preparatory reading and viewed content-based podcasts prior to class. In the classroom, faculty reviewed key lecture elements and students completed the virtual patient module assignments individually during class time. The flipped and integrated section used the flipped delivery method as described. In a technology integrated classroom, students worked collaboratively in groups to complete the virtual patient module assignments together with the support of course faculty. At the completion of the semester, comparisons were made between mean grades on each assignment and examination. Grading of the virtual patient module assignments was completed by lab instructors associated with the course. Interrater reliability was ensured with training during orientation to this course prior to the start of the semester. Examinations were graded via Pars Score® technology and completed by the course instructor of record. Standard student course evaluations, which are de-identified in their report to course faculty, were compared to determine if there is difference between the three sections.

This study used a convenience sample as the students were already enrolled in the respective sections of this required foundational course. Teaching modality and room assignments were determined after the student enrollment period was completed. Following institutional review board approval, informed consent was obtained from students wishing to participate by having their grades included in data analysis. Students who did not consent to participate were excluded from the study. Consent was obtained by a co-investigator who did not have any teaching or grading responsibilities in the course. Further, data was collected by this co-investigator to maintain participant anonymity to course faculty. Participation or nonparticipation in this study in no way impacted their course grades or content delivery. Because end of semester standard course evaluations are reported as aggregate data, there was no way to include or exclude student data and therefore all aggregate data was examined.

A total of 95 students participated in this study. Data from both the de-identified student database and course evaluations were analyzed statistically using ANOVA and Kruskal-Wallis comparison testing. Data analysis revealed significantly better outcomes on 10 of the 12 virtual patient modules in the flipped and integrated classroom section compared to the two other teaching modalities ( $p < .05$ ). Student performance across groups on course examinations did not differ except for one unit examination favoring the flipped and integrated model. Of the summative evaluations, no significant differences were found between groups for the final head to toe demonstration, final examination, and overall student grades; those in the flipped and integrated model scored significantly higher on the comprehensive virtual patient module ( $p < .05$ ). Qualitative comments from student evaluations were analyzed for common themes.

In conclusion, the use of a flipped classroom design with an integrated model using a virtual patient supported student learning. It improved the scores on virtual patient modules, which provided the students with a safe platform to practice their assessment, documentation, and critical thinking skills. While most of the summative evaluations showed no significant difference, the comprehensive module did show significant difference, which demonstrates the students' ability to organize, perform, and document their complete history and physical exam. Limitations of this study included the small sample size and the fact that the students were not allowed to self-select in which section they would participate. Further study is recommended.

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## H 06 - Nursing Student Health Assessment Innovations

### Self-Efficacy of Health Assessment Skills for Nursing Students After a Comprehensive Health Assessment Video Assignment

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#### Abstract

**Background:** It has been long known that high self-efficacy is related to positive educational outcomes. For nursing it is important to assess nursing students' perceived self-efficacy toward tasks essential to their future career. This task of producing efficacious nursing students is daunting amidst the prolonged Nursing faculty shortage, of which, there is no predicted end. Educational methods based in evidence is important for best practices in the training of these new Nurses. This project aimed to assess undergraduate nursing students' feelings of self-efficacy toward health assessment skills both before and after participation in a comprehensive health assessment video assignment.

**Methods:** A survey that measured students' perceived self-efficacy toward health assessment skills was administered to a class of upper division, undergraduate nursing students pre- and post-assignment. The cohort under study was in the first semester of their Bachelors nursing program. The survey consisted of Likert-style questions with a range from 1 to 6. Univariate analysis and bivariate paired t-tests, based on the intrinsic characteristic of the variables, were performed.

**Results:** All measures of students' perceived self-efficacy toward health assessment skills were significantly ( $p < .001$ ) increased post-assignment. The largest increase in perceived self-efficacy was with their ability to conduct a comprehensive health assessment for a given patient (Mean Difference=2.24). Overall, the aggregated mean showed a significant ( $p < .001$ ) increase in nursing students' perceived self-efficacy toward health assessment skills.

**Conclusion:** The comprehensive health assessment video assignment increased nursing students' perceived self-efficacy toward health assessment skills. This is important with the lingering Nursing faculty shortage, as methods for improved, evidence-based practices with increased efficiency could prove worthwhile in the training of quality Nurses. The use of alternative educational methods will need further exploration with a focus on evidence of best practice. Otherwise, the new Nurse will not be grounded on a solid foundation of proper methods as they enter the health care workforce.

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## H 07 - Phenomenological Studies in Education

### What Grades Really Mean to Undergraduate, Graduate, and Doctoral Nursing Students: A Phenomenological Study

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#### Abstract

Many nurse educators have become increasingly concerned about students' constant focus on grades. The accurate and fair assessment of nursing students is essential for faculty at all levels of nursing education. According to the National League for Nursing (NLN) assessment and evaluation of students is a core competency for all nurse faculty (2012). A recent study by Poorman and Mastorovich (2014) found that evaluation was the most important aspect of a nurse educator's position, yet enacting it was often very difficult. O'Flynn, Magee and Clauson (2013) purport that inconsistent grading practices, students' unrealistic expectations about grades and grade inflation may contribute to these difficulties.

One of the largest studies on grade inflation was a retrospective study that spanned 70 years and included 1.5 million students in 135 colleges and universities (Rojstaczer & Healy, 2012). They found the current average college grade is an A, which has increased 12% since 1988. Much has been written about grade inflation and the failure to fail students in nursing education. (Donaldson & Gray, 2012; Elie, 2017; Paskausky & Simonelli, 2014; Prichard & Ward-Smith, 2017). Recently, Docharty and Dieckmann (2015) found that 43% of nursing faculty had assigned grades that were higher than what was merited.

The gap between grade expectations and actual grades has also received attention in the educational literature. Garces-Ozanne and Sullivan (2014) found that grade expectations were significantly different than actual grades received. They also found that when students received lower grades than expected, they believed they were either graded unfairly or that they were "not good enough" (p. 96). Hossain and Tsigaris (2015) also found an inverse relationship between grade expectations and actual grades received. However, they also found that expectations became closer to reality as the student progressed through the program. In a study of 1,015 students enrolled in an anatomy and physiology class, 65.5% overestimated their final grade with 29% overestimating by two to four letter grades (Sturgess, et al., 2016).

In contemporary society, grades matter. According to the National Association for College Admission Counseling grades were the most important factors for freshman college admission (Clinedinst, Korangteng & Nicola, 2015). This was also true for transfer students. Further, a recent meta-analysis revealed a positive correlation between high school Grade Point Average (GPA) and college success (Westrick, 2015). Similarly many graduate and doctoral nursing programs require a certain GPA for admission. Grades can also affect self-esteem. Khan and Ramzan (2017) found that in a sample of 150 undergraduates students, good grades were positively correlated with positive self-esteem. Further, they found that authoritative parenting was linked to academic grades and permissive parenting was not. For students, parents and teachers, grades often take on a personal significance and display a variety of emotions.

The educational literature is replete with strategies and research regarding how to evaluate and assign grades, the effects of grade inflation, and the disconnect between student expectations and actual grades received. Yet, there is a paucity of empirical evidence about what those grades mean to nursing students. Using a Heideggerian hermeneutical phenomenological approach, this study sought to illuminate and understand the meaning of grades for students at the undergraduate (ADN and BSN), graduate (MSN) and doctoral (PhD and DNP) levels of nursing education. Forty nursing students from 15 different nursing programs participated in this research. Human subject approval was acquired, and informed consent was obtained. Unstructured, face to face interviews were conducted in which the students were asked: 'Tell us about a time that stands out to you when you graded. Now reflect on your story and describe what this experience meant to you.' Interviews were taped and transcribed verbatim. Hermeneutic analysis (Andrews et al., 2001; Ironside, 2005; Smythe et al., 2007) bears witness to how a person experiences something. The researchers engaged in circles of understanding that deepened as the interview texts were read and analyzed. Through rigorous interpretation, meaning, experiences, and judgments were conveyed. Data analysis revealed several themes. The themes: *Needing an A* and *Struggling with Average* will be discussed during this presentation. Excerpts from the student stories will be read and interpretations of the narratives will be shared.

Grade inflation, academic entitlement, incivility and grades are hotly debated topics among students, faculty and the general population. The purpose of this presentation is not to valorize or demonize the use of grades in education. Rather, sharing these stories may initiate a much needed discussion among nursing faculty and students about grading (McConlogue, 2012). According to the NLN (2012), evaluation strategies should promote collegial dialogue and interaction among faculty, students and other professionals. The presenters will discuss how the students' stories of being graded has changed and inspired them. For students, grades are very powerful. Implications for nurse educators will be discussed. Specifically faculty will be encouraged to open the dialogue about grades with their students. With ongoing dialogue about grades, not only will teachers and students share the meaning of the grade experience, they can make a significant difference in student teacher relationships.

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## H 07 - Phenomenological Studies in Education

### Learning Psychomotor Skills Through Technology: Findings From a Phenomenological Study of Undergraduate Nursing Students

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#### Abstract

**Purpose:** Nurse educators continue to seek the most effective methods to teach psychomotor skills to nursing students. Effective skill performance can decrease costly medical errors and infections, thereby improving patient safety (Gonzalez & Sole, 2014; Taylor, 2012). Much of the recent research about skill acquisition involves simulation (Bowling, 2015; Cason et al., 2015) and deliberate practice (Oermann, Molloy, & Vaughn, 2015). In order to develop effective teaching methods, it is also important to understand students' perceptions about how they learn nursing skills. Prior qualitative studies about skill acquisition have found common themes, including the importance of peers, the role of positive support and teaching, and the necessity of practicing skills on real people; however, in these studies technology did not emerge as a strong theme (Aldridge, 2017). The purpose of this presentation is to discuss findings from a phenomenological study conducted with nursing students about their perceptions of learning psychomotor skills including innovations of readily available technology to facilitate and enhance their learning and competency.

**Methods:** Descriptive phenomenology was used. A purposive sample of nine senior nursing students was recruited from a small liberal arts university in the Southwest United States. Participants were interviewed using open-ended questions. Interviews were designed to examine and explore how nursing students describe the process of learning nursing skills. Six themes emerged from the voices of the students; however, this presentation will elaborate on three: "the umbrella of emotion," "practice, practice, practice," and "learning through technology."

**Results:** Student nurses experience an ever-present stream of emotions during the skills learning process. Emotions described ranged from anxiety and inadequacy to confidence, fear and worry to relief, confusion and uncertainty to a sense of accomplishment. Nursing students believed nursing skills were learned most effectively with repetitive practice several times in short sessions. They described barriers to practicing psychomotor skills outside scheduled lab times. These emotions and the need for frequent practice drove nursing students to develop innovative and efficient methods to learn skills. Nursing students' stories revealed the significant role technology played in how they learned skills. Technology was viewed as superior to other sources of information, such as textbooks. Students incorporated innovative uses of readily available technology to enhance their skills learning. Nursing students used smart phones and webcams to create learning materials to practice skill development in settings outside the lab. Nursing students discussed their perceived limitations of professionally developed video learning materials. They preferred self-made videos of their clinical instructor demonstrating a skill in the lab setting. Nursing students used webcams at home when practicing for skills examinations by recording themselves performing a skill with subsequent self-evaluation of their performance. This was reported as an effective strategy to detect errors in their performance, such as omitting steps or contaminating the sterile field. In the clinical setting, nursing students used their smart phones to review skills videos, skills checklists, and search for relevant patient information online. The smart phone became their mobile source of information.

**Conclusions and Policy Implications for Educators:** Results of this research showed nursing students report a wide range of emotions in their learning and competency development of psychomotor nursing skills. Nursing students are innovative and effortlessly use available technology to enhance their skill development and enhance opportunities for practice of new skills. Given the presence of technology in nursing schools around the world, these findings have implications for nurse educators. Nursing schools should develop policies around smartphone use in the clinical setting, including Internet use, confidentiality, and not taking pictures. There is also little evidence that smartphones are a vector for bacteria in the clinical setting (Mark et al., 2014).

Research about how nursing students use technology to learn nursing skills is extremely limited. Given the pervasive nature of technology among nursing students around the world, it is important for nurse educators to develop evidence about how to best use technology to teach nursing skills. This study provides initial evidence about how current students are using technology when learning nursing skills, and serves to guide future studies. Ultimately, teaching students how to perform skills well could make healthcare systems safer and decrease costs as errors and infections are prevented.

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## H 08 - Strategies in Nursing Research

### Designing an Innovative Recruitment Strategy While Navigating IRB Issues in Multisite Survey Research

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#### Abstract

**Background.** There are many lessons that can be learned and successful strategies shared which are particularly relevant for multi-site, nursing education-focused survey research designs. Calls continue for big data studies to accelerate the generation of new knowledge and accelerate translation of evidence for teaching practice (Broome, 2009; Broome, Ironside & Spurlock, 2012; DeVon, Rice, Pickler, Krause-Parello, & Richmond, 2016) yet there is little to guide researchers through the challenges they may encounter. We will explore lessons learned through conducting a large, national, complex survey study of family nurse practitioner (FNP) clinical education practices to 1) inform other researchers about potential challenges they may encounter and strategies to overcome them and 2) discuss solutions and best practices that can inform policy and interpretation at local institutions with a goal of reducing barriers to conducting large scale survey research in nursing education.

**Current Study.** In early 2017, the authors began a national study of family nurse practitioner (FNP) clinical education practices using a complex, national, cross-sectional survey approach. First the researchers created a sophisticated survey questionnaire to be completed by FNP students currently enrolled in their final clinical education course and a parallel survey for NP faculty. Next, IRB review for research meeting exempt criteria was sought and received from the PI's home institution as well as both Co-PI's institutions. In addition, an informational website dedicated to the research study was published online and all IRB approval letters, study information sheets, and other relevant documentation was posted for the public to see. The subject recruitment plan included recruiting up to 4,000 current FNP students and 1,000 FNP faculty from schools in all 50 states in the US using electronically delivered surveys via Qualtrics®. To reach potential subjects, Deans and Directors from all schools offering eligible programs were contacted by email to facilitate access to potential study participants. Despite a strong, evidence-based recruitment plan, several roadblocks were encountered which fall into 2 main categories: 1) there was widespread variability in understanding of IRB regulations and what they mean for survey researchers seeking access to potential student or faculty subjects, and 2) how the Federal Educational Privacy Rights and Privacy Act (FERPA) permits (or does not permit) researcher access to certain limited kinds of information about students currently enrolled in educational programs.

It is well-known that researchers conducting studies at the national level face significant barriers to recruitment and site access due to variations in the local interpretation and implementation of IRB requirements in each institution. While protection of the privacy and confidentiality of human subjects is essential and necessary, there is little evidence which suggests that repeated reviews by multiple Institutional Review Boards increases research participant protection (Mealer et al., 2017). Moreover, most education-related survey research falls under the exempt category when participant identity is not associated with survey responses. Many software programs used in large scale survey studies can provide additional protections by anonymizing responses even when individually identifiable information (e.g., name, email address) is used to invite subjects to participate in the study, further reducing concerns about privacy and confidentiality.

**Methods.** In the study discussed here, the study PIs initially made contact with the administrative contact (usually a dean or director) for each school and provided all relevant documentation related to the study's purposes, its IRB approval status, and a notice that the study was being funded by a large grant from a well-known national nursing organization. Because of the strong response rates and relative overall efficiency associated with direct, personalized email invitations to potential subjects, the research team's preferred approach was for schools to provide a very limited set of contact information for eligible students and faculty, comprised of name, email address, and for students only, their program of enrollment (MSN, post-master's certificate, etc.). We encountered two main issues which ultimately forced us to modify our procedures in several regards.

**Challenges with IRB.** The first issue we encountered involved many schools' requirements that we obtain additional local IRB approval before the program administrator could invite students and faculty to participate in the study. Despite clear federal guidance from the US Office for Human Research Protections (OHRP) that simply making potential subjects aware of research for which they may qualify and have an interest in participating, such as by forwarding a study invitation email – or even permitting access to potential subjects directly, such as by providing contact information for the potential subject – does not “engage” an institution in conducting the research, and therefore obviates the need for local IRB approval, many schools indicated that by policy or just historical practice, the research team would need to obtain local IRB approval before the school's students or faculty could be invited to participate in our research. Because obtaining individual IRB approvals from potentially hundreds of different sites is prohibitive, alternative approaches to gaining approval were developed, with some success and will be discussed in this session.

**Challenges with FERPA.** The second issue we encountered was that schools were generally hesitant, and in many cases completely unwilling, to share a list of student and faculty contact information over concerns about compliance with FERPA guidelines for the privacy of student records. While this appears to be a common interpretation, many faculty and administrative leaders are unaware that FERPA permits disclosure of certain kinds of student information without additional student consent, so long as the school notifies students each year about what information may be disclosed. The mechanism by which FERPA provides for this disclosure is through what it terms “directory information”, which is limited non-confidential student information which may be released at the school's discretion. Permitted disclosures of directory information typically include information such as name, email address, date of admission, program of enrollment, etc. The “directory information” provision within FERPA is what enables schools to provide searchable online directories of its students, to provide student contact information to job recruiters, and in publishing academic awards lists like Dean's lists. To overcome site concerns related to FERPA, several optional strategies were employed with varied success and will be discussed during the session.

**Overcoming barriers.** Since gaining access to potential subjects proved more difficult than anticipated and the researchers had to develop and implement several innovative strategies beyond email solicitation using students' school-issued email address. To be successful, we developed innovative technology, social media and relationship-based solutions to reach potential participants. The use of technology and computer programs designed for survey research and data management is not new, however, but the sophistication and options available now provide researchers with opportunities to leverage recruitment in large studies for minimal costs. Likewise, the use of social media to access potential research participants has been reported in recent years (Howerton Child, Mentes, Pavlish & Phillips, 2014; Kosinski et al., 2016) however there are many issues to consider when thinking of using social media for recruitment, including, perhaps most importantly, verification of eligibility for inclusion in the study. While these issues are not new or unique to this study (Mealer, Flynn, Ironside, & Spurlock, 2017), rarely are strategies for addressing these issues shared between research teams. In this interactive session, the authors will not only share successful strategies but also the knowledge and theory behind successful navigation of potential roadblocks.

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## H 08 - Strategies in Nursing Research

### Empowering Students and Faculty to Close Research Knowledge Gaps

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#### Abstract

**Purpose:** The purpose of this presentation is to share two course designs that helped faculty who are teaching research to close the nursing research knowledge gap between students in two baccalaureate nursing tracks and from different generations. Traditional and accelerated-track or 2<sup>nd</sup> baccalaureate degree nursing students enter academic institutions with different knowledge background. The traditional (TBSN) students who are novice to academic learning will need to master concepts that are often abstract and challenging, especially when it pertains to research classes. Many of the TBSN students are attending college after a high school graduation (generation Y, and Z); the others are non-traditional (minority, or first-time college attendee, generation X and "Baby Boomers") or professionals perusing different career. In comparison, the accelerated (ABSN) students have spent four years in higher education, have already obtained a baccalaureate degree, and have been exposed to research terminology. Therefore, the students in the accelerated tracks have a head start in learning about nursing research and Evidence-Based Practice. The faculty teaching research courses often face the challenge to select learning objectives that will bridge the research learning gap between traditional and accelerated-track nursing students. Nurses in the contemporary healthcare are expected to show proficiency in using nursing research for best practice.

**Methods:** Comparative analysis of traditional (face-to-face classroom) and online environments based on external standardized testing. Design: 15-week interactive and innovative lecture content, practice sessions, unit tests, and external standardized exam. The external standardized exam was used as an independent, objective tool to measure the knowledge gap in both tracks.

**Sample:** 16 TBSN and 22 ABSN students. Both were exposed to the same lecture material and testing. The traditional classroom has included creative practice sessions, poster presentation, and in-class active learning activities. The online class has included discussion forums, independent practice, and video lectures and virtual presentation.

**Results:** The mean values of the external standardized testing grades were not statistically different for the two programs. ABSN  $\mu=86.82$ ,  $SD=4.37$ , minimum value= 79.5, maximum value=94.5. For the TBSN  $\mu=87.53$ ,  $SD=4.49$ , minimum value=79, maximum value=95. The results suggested that that both tracks have reached similar levels of knowledge despite the different educational background and knowledge acquisition related to research concepts.

**Conclusion:** The results of this comparative analysis generate a significant, multinational impact on the ways of how faculty approach teaching nursing research around the world for different educational backgrounds. TBSN students benefit from in-class face-to-face lecturing and hands on activities. The ABSN students enjoy more independent learning and content with practical implications. The traditional classroom supports active learning of abstract concepts and therefore, it is a helpful environment in closing the nursing research knowledge gap for the TBSN population. An interesting conclusion of the comparative analysis is that the TBSN students had higher mean and maximum value in comparison with the ABSN students. This conclusion supports the recommendation of teaching nursing research in a face-to-face classroom. The study conclusions have a serious impact on nursing education science as it shows a beneficial way of teaching nursing education theory development pertinent to research.

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## H 09 - Technology to Improve Education and Practice

### The Power of the Internet in Students Learning

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#### Abstract

New technology and the way in which it is used is revolutionizing health care and changing the practice of nurses. It also affects the way nursing students are learning in the classroom. Technology plays a critical role in teaching and learning allowing students to interact and share information with the instructor and with peers. Today, the Internet is widely used to facilitate research and learning for health and medical information. The pervasiveness of the Internet makes obtaining, processing, and understanding health information a critical competency area for nursing students. Robb and Shellenbarger (2014) suggested that faculty should consider incorporating learning activities that help students develop the skills, knowledge, and confidence to locate and evaluate information on the Internet.

A group assignment was created for students in an undergraduate nursing course. The purpose of the assignment was to provide students with opportunities for accessing electronic health (eHealth) information and sharing of the information or resources in the classroom. The 30 students enrolled in the course were assigned to one of eight groups. Students were required to conduct an online search and select an article that was related to the topic assigned. They were provided with the CRAAP (Currency, Relevance, Authority, Accuracy, Purpose) test to evaluate the article/information selected. The assignment required students to build an eHealth wiki page on the course management system by providing a description of the topic, overview of the article, create and attaching a word file of the article, and a link to the webpage. In addition, pictures and YouTube videos to support the report were required. The eHealth reports were presented in the classroom. At the end of the semester a 5-item questionnaire was given to evaluate the eHealth Report assignment.

Results of the questionnaire surveys were unanimously positive. Feedback from students suggested that the development of the eHealth Report wiki allowed for creativity, collaboration and teamwork. There was evidence of sharing of information. All of the students (100%) communicated that the assignment added to their skills, knowledge, and confidence in locating and evaluating information from the Internet. Ninety-seven (97%) percent of the students found the assignment to be helpful in learning about the concepts. Only 80% of the students found the online format easy to use. However, 100% of the students would recommend the eHealth assignment for future nursing students.

Using digital technologies such as wikis in the classroom and online search for healthcare information empowers students to take an active role in their learning allowing them to gain a deeper understanding of the concepts. The Internet can provide extensive information on research, disease conditions, health assessment, treatment options, and preventative measures and is a valuable tool that students can use when seeking important information on healthcare related topics that may ultimately impact their practices as Registered Nurses.

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## H 09 - Technology to Improve Education and Practice

### Nursing Students' Use of Social Media for Academic and Professional Purposes: A National Survey Report

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#### Abstract

**Introduction:** The understanding of the use of social media for academic or professional purposes is sparse. Very little is known or reported in the literature about nursing students' engagement with social media as a scholarly resource. The pedagogy of nursing education is changing as more academic settings are using social media platforms as a tool (Schmitt, Schmitt & Booth, 2012).

**Objectives:** The purpose of this study is to determine baseline data on engagement behaviors of nursing students pertaining to their use of social media platforms to access academic and professional content.

The overall questions guiding the survey were developed specifically to capture nursing student report of social media use, including both personal and academic/professional activities, and to explore how faculty or others support or foster the use of social media as well as reading/subscribing to scholarly journals. These questions include:

1. What are students doing in the social media environment and print/internet resource world today?
2. What is faculty doing in relation to referring students to scholarly websites, online resources, and social media?
3. How do students use social media in general and internet resources related to their professor influence as well as personal characteristics including age, geographic location, and personal education aspirations?

**Methods:** A web survey using SurveyMonkey® was emailed to a sample of approximately 3,400 students within the market contact list of the publishing company of the *American Journal of Nursing*, Wolters Kluwer Health. Although not all students who participated in the survey completed all questions, 662 responded, and 542 were complete representing a 19% return rate and 15% completion rate (which is comparable to online surveys with large database distributions), with 97 additional web-based responses added to the total of 769 responses.

**Results:** Results include an analysis of student characteristics including age, educational setting, geographic location of program and educational aspirations. Most students reported seeking their bachelor's degree including BSN/BS/BA (35%), with 21% pursuing a master's degree including MSN/MS/MA. The sample was noticeably educated, with 12% already pursuing doctoral degrees. The sample was noticeably older (>50% over 40 years old), 33% of respondents are enrolled in an online program, 25% in an urban setting 22% a suburban setting and 20% rural area. The academic goals of the respondents were: 35% want to eventually pursue a doctoral degree; 22% have their BSN but are stopping after their master's degree, 20% are getting their BSN and not going any further, and 3% are getting their diploma only.

The social platform most frequently used by all respondents for personal reasons was Facebook at 99% and LinkedIn for Academic/Professional reasons at 85%, results also speak to the way students access social media platforms (hardware) and their baseline knowledge of academic/professional content.

In addition to providing seminal baseline descriptive statistics on social media use in nursing students, significant findings include correlation of age and social media usage, professor influences on student use of social media for academic/professional reasons the influence of educational setting, student geographic location, and self-reported educational aspirations on professor influence.

**Conclusions:** This study serves as a seminal baseline of nursing student social media usage. With implications for both educators and publishers, the results show that students use social media for academic and professional purposes, and as such, the venue poses a potential impact as an educational tool.

Future research must include a deeper understanding of academic and professional content, and the mechanisms for ensuring its credibility and value as educational tools. With this insight into why and how nursing students use social media and the insight that their academic and professional use is directly influenced by professor input, educators have the ability to begin to explore this emerging medium for classroom purposes.

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## H 10 - Transitioning Novice Nurses to the Clinical Setting

### Meaningful Factors in Nurse Transition for Newly Licensed Registered Nurses in Acute Care Settings

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#### Abstract

Nurse residency programs (NRPs) have been identified as a means to promote transitioning of new nurses into the professional nursing role. Questions have arisen related to which elements within those programs are most meaningful to the development of new nurses. As the nursing shortage drives the need for quick transition and development of nurses to meet workforce needs (Buerhaus, Auerbach, Staiger & Muench, 2013), nursing must identify what factors are meaningful to nurses in their transition to practice. The Future of Nursing Report called for measurement of nurse retention, nurse competency, and patient outcomes to determine outcomes related to the nursing workforce (IOM, 2011). Hospitals using established programs for nurse transition had higher retention rates, fewer reported patient care errors, and fewer negative safety practices (Spector et al., 2015). An NCSBN-sponsored study recently concluded that many elements exist in transition to practice, but identification of specific elements or combinations of elements is needed to further the development of transition programs in the United States (Spector et al., 2015).

The purpose of this multi-site study is to explicate meaning from the experiences of newly licensed registered nurses (NLRNs) who have just completed NRPs in acute care settings. What factors within their new practice environment contributed to their growth and satisfaction in the workplace? The research question was "What factors have meaning for NLRNs who have experienced transition to practice in nurse residency programs in acute care settings?"

Semi-structured interviews were used to collect data from six NLRNs from three different NRPs after completion of their nurse residency programs. Using interpretative phenomenological analysis, themes and variations within those themes, were derived from the descriptive narratives provided from participant interviews. Overarching themes identified from the narratives were *Relationships*, *Reflection*, *Desire for Active Learning*, *Resources* and *Organizational Infrastructure*. Within the theme of Relationships, the subthemes of "Connectedness" and "Support" emerged from the data. Another noted subtheme occurred within the discussion of Resources—"Access to Seasoned Nurses."

Relationships were noted to be significant among the participants as they described the interactions with preceptors, mentors and other staff within their workplace settings. Participants also described important relationships among the peer groups within the NRPs. The NLRNs derived a sense of connectedness that enabled them to assimilate their new roles and become a part of the profession. The NLRNs also described a sense of support that empowered them to gain competence and confidence in the new experiences. In situations which lacked the presence of connectedness and support, the NLRNs described less positive experiences. Other studies have also demonstrated the importance of the preceptor or mentor relationships (Spiva et al., 2013; Craig, Moscato & Moyce, 2012; Olson-Sitki, Wendler & Forbes, 2012).

Reflection was another factor deemed important to the NRP process by participants in the study. The NLRNs described struggles that they encountered in each of their settings and how they were able to take these experiences back to the NRP classroom, sharing their feelings and reflecting on the experiences that they had encountered in practice. Individualized reflection within their practice setting helped NLRNs to work through the emotions and the problem-solving aspect of the situations that they experienced. Exploration of experiences with opportunities to debrief and reflect on practice contribute to the development of nurses (Sherwood & Horton-Deutsch, 2012; Trepanier et al., 2012).

Participants in this study expressed a desire for active learning in the workplace and in the educational setting, as well. The NLRNs described some of their best learning opportunities as those activities that occurred in simulated bedside scenarios, interactive case studies, and guided practice at bedside with the preceptor. Many described similar active learning strategies within their nursing programs which they attributed to their formation as a nurse. The opportunity to practice within a safe and non-judgmental environment contributed to the efficacy of these nurses as they entered practice settings. In the NCSBN study, similar conclusions were noted about the importance of active learning (Spector et al., 2015). The NLRNs also ascribed meaning to the quick access to resources. At times this was noted in the need for physical resources, such as blood products or personal protective equipment. But more frequently the resources that they wanted were of an instructional nature—ready access to policies and procedures or information about patient care. The most common discussion was that of access to seasoned nurses, who could provide guidance and information quickly and decisively. Some of the nurses described situations in which the preceptor had limited experience and was unable to provide the information needed. Some participants relayed stories of several new nurses on a unit with one preceptor with less than one year of experience. Hospitals must ensure that nurses have adequate resources available to promote optimal care for patients and adequate support for new nurses (Bratt, 2013).

A key theme that developed from the narratives of the participants was the need for organizational structure that supported the NRP. As noted by Bratt (2013), the importance of top-down support for the NRP is non-negotiable. Administrative support within the hospital system is elemental. Follow-up to ensure that roles within the NRP structure are fully developed and communicated is essential to the success of the programs (Spiva et al., 2013). Ensuring that adequate staffing is in place to support the learning that must occur in the workplace begins with nurse administrators (Blegan et al., 2015).

Findings of this study have implications for practice and education as the nursing profession strives to find ways to transform nurses in an effective and efficient manner. Nurses within practice and academia must work collaboratively to further define the meaningful factors that contribute to growth of NLRNs. Professional nursing must be proactive in developing the next generation of nurses to continue safe and effective practice.

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## H 10 - Transitioning Novice Nurses to the Clinical Setting

### A Community Hospital's Approach for Bridging Novice Nurses Into Clinical Practice

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#### Abstract

**Introduction:** A rural 350 bed community hospital has on-boarded over seventy new graduate nurses within the 2016 calendar year. A high percentage of ADN prepared nurses are seeking employment in our demographic area, and within our organization which, resulted in a partnership for recruiting nursing from the local community college.

There is an abundance of literature addressing clinical transition programs; with these resources available a small organization's clinical education team was able to align efforts creatively, efficiently, and effectively bridging new clinical nurses into practice.

**Objective:** Historically, an interdisciplinary program was in place titled "Graduate Nurse (GN) Sessions" which was coordinated by a sole educator. In late 2016, a small sub-committee of Clinical Nurse Educators formed to reformat the sessions into a more holistic program based on Commission of Collegiate Nursing Education's (CCNE) Standards for Accreditation of Entry-to-Practice Nurse Residency Programs. Goals were set to align our curriculum with the CCNE's evidence-based curriculum in order to support novice nurses towards bridging to competent professional clinical practice. The first step was to give the program a new title. "Bridge to Practice Series" was proposed and unanimously supported by Educational Services. The new title, and program reformat welcomes any new nurse with less than one-year of clinical practice to participate. The goals of the program include;

1. Provide educational support in the transition from entry-level clinical nurse to competent, professional nurse who provides safe, quality patient care.
2. Introduce application of evidence-based practice in the clinical setting.
3. Develop clinical decision-making skills related to nursing practice.
4. Foster the development of professional growth for nurses with less than one year of clinical experience towards an individualized career plan that promotes a life-long commitment to learning.

**Method:** Clinical Educators analyzed the curriculum and learning objectives of the previous program and aligned it with the CCNE Standards. There were many gaps identified regarding concepts such as delegation, communication, business and finances in healthcare, and comfort care/ethical principles. Several expert presenters within the organization all agreed to take part in the growth of newly graduated nurses.

The program's curriculum was designed under a non-traditional framework with an emancipatory design. This design offers less structure on the content which aligned with the fact that our Bridge to Practice Series has many interdisciplinary content experts to provide more reinforcement on learning through discovery, dialogue, and clinical reflection. Emancipatory curriculums are grounded on phenomenology, feminist theories, and social theories (Billings & Halstead, 2012)

The previous GN Session were very poorly attended, therefore with analysis of organizational culture, a new program structure was purposed. Scheduling processes were adjusted among all of the inpatient departments of the hospital to ensure improved attendance. Communication improvements were initiated with the leaders of the organization, and the participants within the program utilizing technology resources.

Newly graduated nurses experience the lowest level of confidence and satisfaction six months into their new professional role. Transition programs such as the Bridge to Practice Series can ease these feelings and work to increase morale and satisfaction through support, knowledge, comradery (Crimlisk, 2017). Adult Learning operates under the premise of principals that adult learners have more life experiences to relate learning to, adult learners thrive off of autonomy and relevance of the content rather than the content itself, and adult learners often require rationale to the learning opposed to learning empty content (Curran, 2014). Redesigning Bridge to Practice ensured that the content offered value to the participant, repetition of core concepts bridging from Clinical Orientation, and allowed the participants to learn together while offering times to decompress stresses and struggles (Crimlisk, 2017). Content is offered through multiple learning modalities with continuous evaluation and revision; with intention to improve retention, engagement, and intellectual curiosity (Phillip et al., 2015).

Creative teaching strategies were embraced throughout the curriculum design. Case scenarios served as a tool to build retention of information in order to make concepts more relatable to build critical thinking skills (Billings and Halstead, 2012). The Education Team built a patient named Tom Bridge, he is threaded throughout every clinical session within the series with attempt to make the content more relatable. During every bi-weekly session the participants arrive wondering "what is going to happen to Tom today?" Other teaching strategies include journal article reflection, skills demonstration, simulation, and gaming.

**Results:** Permissions was requested and granted to utilize the Casey-Fink Graduate Nurse Experience Survey as means to measure participant stressors, confidence in skills/procedures, and transition difficulties for new nurses (Crimlisk, 2017). A cross-sectional study by Goode, Lynn, and McElroy (2013) compared ADN prepared nurses to BSN prepared with the Casey-Fink Experience Survey; and that ADN nurses were better prepared with technical skills, whereas the BSN were better prepared with professional development and critical thinking (Cochran, 2017). Our organization largely employs ADN prepared nurses, therefore aspects of critical thinking and professional development were a focus of the Bridge to Practice curriculum.

The Bridge to Practice participants will complete the survey before they enter the program, mid-way, and after completion. Data will be collated in order to assess trends, and evaluate the program according to the participants needs. Formative evaluation will occur with each session regarding the learning environment, content expert, and applicability of the content. The series revolves every six months, as data is gathered and evaluated, changes can be implemented prior to the next session offering.

Conclusion: The use of clinical transition programs and their outcomes has been researched extensively. The design of the Bridge to Practice Series has offered several creative interpretations to implement clinical transition research.

Over-all the clinical transition program "Bridge to Practice" has become a huge success to novice nurses, and the organization as a whole. The coordination and implementation of Tom Bridge into the curriculum has truly brought spirit to the program, and within the interdisciplinary content experts working towards the professional development, and clinical competence of newly practicing nurses.

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## H 11 - Instrument Development

### Re-Examination of the Psychometric Properties of the Nurses' Perception of Patient Rounding Scale

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#### Abstract

Hourly patient rounding has re-emerged as a standard practice initiative among nurses in acute care settings to promote safe, quality care in health care delivery systems. Patient's perception of excellence in care is based on the perceived availability and visible presence of nurses. The practice of patient rounding has been associated with a decrease in call light use and falls, increased patient satisfaction and safety, and quieter nursing units. While the conduct of patient rounding in hospital settings is increasingly becoming standard practice internationally, continued controversy regarding its use in nursing exists, and importantly, nurses' perceptions of this common practice have not been consistently measured. Due to the dearth of an available measure to determine staff nurses' perceived values, beliefs, and attitudes towards the practice of rounding, the Nurses' Perception of Patient Rounding Scale (Neville, 2010) was developed.

Using the newly developed instrument, the Nurse's Perception of Patient Rounding Scale (NPPRS), the purpose of this study was to examine whether the NPPRS continued to demonstrate strong psychometric properties when retested with additional investigations in multiple acute care settings.

The NPPRS, a 42 item scale in 5 point likert format consists of three subscales and a total scale: Nurse benefits, patient benefits, and communication. Initial psychometric support for the NPPRS was established through content validity and Cronbach's alpha coefficients. After IRB approval at each institution, nurse participants completed the NPPRS with additional qualitative items geared toward identifying challenges, barriers, and facilitators towards this increasingly mandatory practice.

The findings of this study through factor analyses support the three subscales. Results of the total NPPRS and the subscales of communication, patient benefits, and nurse benefits indicated that nurses perceived rounding to be an important and valued practice, yet qualitative inquiry revealed that nurses identified challenges to practice of rounding. Variability existed among acute care settings in terms of nurses' perception of benefits, whether the practice of rounding was more beneficial to nurses themselves or to patients; however nurses perceive the practice of patient rounding as favorable and beneficial to patients and to themselves. Challenges to rounding reflected issues of documentation, nurse-patient ratios, skill mix between ancillary support and nurses, and time management. Importantly, thematic analyses revealed that a mandated rounding protocol minimized nurses' professional autonomy in determining the frequency and duration of time spent with patients. Nurse leadership, evident in the supportive presence of nurse leaders positively influenced staff nurses perceptions of patient rounding.

The implications for practice and research are as follows: Nurse leaders serve as important facilitators to successful patient rounding. Through expert communication, nurse leaders can engage staff in discussion and exploration of controversial issues related to hourly rounding to enhance the delivery of safe and quality patient care, as well as secure resources and facilitate the care delivery model.

In conclusion, the results provide substantial additional support for the reliability and validity of the NPPRS. While additional research is needed to examine the controversial issues of rounding, and to further test the NPPRS for psychometric validation and future modification of the NPPRS, the need also exists to investigate the perception of patient rounding in other care delivery systems beyond medical-surgical acute care settings.

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# H 11 - Instrument Development

## Promoting Safe Medication Administration Using Simulation

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### Abstract

**Background:** Medical errors continue to soar in the United States (U.S.) and are now estimated to be the third leading cause of death (Makary, 2016). Medication administration is a key nursing responsibility directly affecting the quality and safety of patient care. However, there is evidence that students and newly graduated registered nurses have deficiencies in safe medication administration (Sulosaari, Kajander, Hupli, Huupponen, & Leino-Kilpi, 2011; Wolf, Hicks, & Serembus, 2006) related to error identification (Henneman et al., 2010; Whitehair, Provost, & Hurley, 2014), verifying essential steps of safe medication administration (Elliott & Liu, 2010; Schneidereith, 2014), patient identification (Wolf et al., 2006), and medication calculation for correct dose administration (Wolf et al., 2006; Zahara-Such, 2013). Furthermore, nursing students lack adequate clinical judgment, including problem recognition and reporting of essential clinical data (Sherwood & Barnsteiner, 2012), to safely administer medications.

Simulation is an evidence-based pedagogy that facilitates the learning of important aspects of safety and quality patient care (Henneman et al., 2010; Jeffries et al., 2004; Sears, Goldsworthy & Goodman, 2010). In 2016 Zimmerman and House recommended that simulation be used as a strategy to decrease medication errors.

**Purpose:** The purposes of this two-group pre-test/post-test study were to: 1) pilot test a new medication safety enhanced (MSE) simulation-based learning experience (SBLE); 2) investigate the effect of an MSE program of simulation on nursing students' knowledge of medication safety; 3) investigate the effect of an MSE program of simulation on nursing students' ability to safely administer medications; 4) investigate the effect of an MSE program of simulation on nursing students' perceptions and comfort level about patient safety; and 5) provide further psychometrics for the Medication Safety Knowledge Assessment (MSKA), Medication Safety Critical Element Competency Checklist (MSCEC), and Healthcare Professionals Patient Safety Assessment (HPPSA) tools.

**Research Questions:** The research questions guiding this study were: 1) What is the effect of an MSE program of simulation on nursing students' knowledge of medication safety; 2) What is the effect of an MSE program of simulation on nursing students' competency in administering medications safely; and 3) What is the effect of an MSE program of simulation on nursing students' perceptions and comfort regarding safe administration of medications?

**Methods:** Following institutional review board (IRB) approval, a convenience sample of junior level medical-surgical baccalaureate nursing students (n = 86) at a mid-sized, mid-Atlantic, private Catholic university was recruited to participate in the study. Students were randomly assigned to 12 clinical groups at the beginning of the semester and participated in all SBLEs in their clinical group. Clinical groups, each composed of six to eight students, were randomly assigned to the intervention or control group.

There were three SBLEs included in the medical-surgical course. The first SBLE was a medication skills lab for both the intervention and control groups; the second SBLE was a two-patient medication administration SBLE for the intervention group only; and the third SBLE was a gastrointestinal (GI) or a post-operative (post-op) hip replacement SBLE for both groups. The first and third SBLEs were previously validated by experts and have been used for several years at the study school. The second SBLE was newly developed for this study. The control group participated in only the first and third existing SBLEs with no modifications or enhancements. The intervention group participated in all three SBLEs with medication safety enhanced (MSE) debriefings in the first and third SBLE, and also participated in the newly developed second SBLE administering medications to two standardized patients.

Two new researcher-developed instruments were developed for use in this study: the Medication Safety Knowledge Assessment (MSKA), a 25-item multiple-choice knowledge assessment, and the Medication Safety Critical Element Checklist (MSCEC), an 11-item critical element checklist. The content of the instruments were validated by experts and the instruments underwent pilot testing for psychometrics prior to being used in this study. The MSKA had a content validity index (CVI) of 0.94. A pass/fail cut score (< 21 = fail; ≥ 21 = pass) for the MSKA was determined using the modified Angoff method. The MSCEC had a CVI of 0.92. Inter-rater reliability (IRR) for the MSCEC was > 0.9. Cronbach's alpha reliabilities for the MSCEC were 0.69 to 0.72, indicating acceptable reliability for a newly developed instrument.

Subjects were pre-tested for medication administration safety knowledge using the MSKA, and comfort and perceptions about patient safety using the HPPSA prior to participating in the SBLEs, and post-tested for medication administration safety knowledge, and comfort and perceptions about patient safety after completion of the last SBLE. Participants were also tested on competence in the skill of safe medication administration using the MSCEC after completion of the last SBLE.

**Results:** The Medication Safety Knowledge Assessment (MSKA) was analyzed based on a Knowledge Pass/Fail cut score (< 21 = fail; ≥ 21 = pass). Crosstabs and Chi-Square analyses were computed. For the pre-test, there was no statistically significant difference between intervention and control groups demonstrating that the groups were homogenous prior to the intervention. For the post-test, a statistically significant difference was found between the intervention and control groups ( $\chi^2 = 5.13$ ,  $df = 1$ ,  $p = .02$ ) with the intervention group having higher post-test pass rate (57%) than the control group (28%).

The pre-posttest scores on the Health Professional Patient Safety Assessment (HPPSA) were analyzed using independent and paired *t*-tests. For both the intervention and control group there were no statistically significant differences in pre-posttest scores on Part 1 and Part 3. However, both groups had significantly higher Part 2 post-test scores (intervention group  $t = 3.96$ ,  $p = .001$  and control group  $t = 3.11$ ,  $p = .004$ ).



For the Medication Safety Critical Element (MSCEC) assessment, between group scores were compared using an independent *t*-test. The intervention group scored significantly higher than the control group ( $t = 2.28$ ;  $p = .028$ ).

**Discussion:** The nursing literature is limited in discussion of both the psychomotor skill acquisition of administering medications (Ross, 2012) and the knowledge and competency regarding safe medication practices. The findings of this study support that SBLE interventions can contribute to student learning and performance related to medication administration and patient safety. These findings are consistent with existing literature identifying that simulation can enhance safe medication practices of student nurses (Pauly-O'Neill, 2009; Radhakrishnan et al., 2007; Sears et al., 2010; Zahara-Such, 2013).

While the results of this research are promising, replication of this study with different samples would improve the generalizability and provide additional psychometrics for the newly developed instruments. Moreover, a longitudinal study design would help to identify if students retain the knowledge and competence. Future research that studies the transfer of safe medication administration knowledge and skill from SBLEs to the patient care setting is recommended to address a gap in the literature and an identified priority in nursing education research (Mariani & Doolen, 2016; NLN, 2016).

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## I 01 - Doctoral Education Preparation

### Faculty Helping Students Be Successful in Doctoral Education

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#### Abstract

**Background:** Increasingly, students are pursuing either a research or practice doctorate in nursing. While programs of study may vary, students can encounter obstacles during their program of study that cause consternation for them and faculty teaching them. In fact, faculty often struggle with how to facilitate student success when faced with competing faculty demands. The purpose of this presentation is to review the literature on strategies to enhance student success. This work builds on work conducted in 2005.

**Method:** Literature [research and theoretical] for the past 10 years was reviewed using CINAHL, Medline, and Education databases. Key words included doctoral student advising, mentoring doctoral students, success in doctoral programs. Dissertations and theses were also accessed, as were seminal works. Reports of research were evaluated using the US. Preventive Services Task Force (1989).

**Outcomes:** 18 reports of research and 17 non-research publications were retrieved and reviewed. Findings indicate students need help getting started in graduate school in ways that promote success such as comprehensive orientations; establishing connections with people in the department and with the culture of the department; experiencing carefully-constructed advising and mentoring relationships. Having well established advising policies and procedures contributes to student success and should address time involvement, method of communication, response time, documentation of decisions, and role clarification. Programmatic strategies include providing opportunities early immersion in research or practice, Weekly opportunities to interact with faculty, shared congregating areas and programmatic flexibility are equally important. Most research reported employed qualitative or descriptive methods.

**Conclusion:** The topic of doctoral student success continues to be discussed in the literature. Mentorship received the greatest attention since the previous review of literature in 2005. There are evidence-based strategies available to enhance student success. Faculty are encouraged to employ and continue to evaluate their effectiveness. Conducting multi-site intervention studies is one strategy faculty may wish to consider.

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# I 01 - Doctoral Education Preparation

## A Motivational Profile of Nurses Who Pursue Doctoral Education

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### Abstract

The need for nurses to pursue doctoral education is imperative to the professionalization of the discipline of nursing in light of the changing healthcare environment. Presently, < 1% of the nursing workforce possesses a doctoral degree ("Transforming Nursing Education," 2016), albeit recommendations from the Institute of Medicine (IOM) (2010) admonish the need to increase the number of doctoral-prepared nurses. The need to understand characteristics of nurses who seek doctoral education is critical in planning long-term strategies for nursing education in the United States (US) (Kovner, Brewer, Katigbak, Djukic, & Fatehi, 2012). In conjunction with describing characteristics of nurses pursuing doctoral education, this research describes the motivational orientation and factors of registered nurses (RNs) pursuing doctoral education.

A nonexperimental descriptive design was utilized to examine concepts relating to motivational orientation of RNs pursuing doctoral education. Participants were divided into two categories: (a) RNs seeking the Doctor of Philosophy (Ph.D.) degree and (b) RNs pursuing the Doctor of Nursing Practice (DNP) degree. A total of 173 RNs enrolled in either a Ph.D. or DNP program in the Gulf South region of the US comprised the final sample. Binary logistic regression was utilized to analyze the motivational orientation. Results of the study indicated that participants self-identified with the motivational orientation of intrinsic motivation-to know—reflective of a self-determined motivational orientation. The second highest self-reported motivational orientation was extrinsic motivation-identified which further reflected a self-determined motivational orientation. Positive correlates included geographical locale, age, and race.

Namely, the odds of nonwhites as compared to whites were 1.857 times greater for enrollment in a Ph.D. course of study. Further results reflected the odds of someone residing in a rural area as compared to an urban area were 0.532 times less in a Ph.D. program. The odds of being in a Ph.D. program are 1.759 times greater for a 40-year-old as compared to a 39-year-old. By identifying the motivational orientation of RNs engaged in doctoral study, nurse administrators, policymakers, and educational institutions must seek innovative means to recruit RNs with a self-determined motivational orientation.

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## I 02 - Effective Teaching Strategies

### Effective Teaching as Perceived by Baccalaureate Nursing Students and Nursing Faculty

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#### Abstract

The number of students applying for admission to nursing schools is steadily increasing. According to the American Association of Colleges of Nursing (AACN) (2016a) of the 713 generic baccalaureate nursing programs in the United States (U.S.) and its territories that reported data for 2016-2017, there were 50,598 applications meeting admission criteria but were not offered admission (AACN, 2016a). This is a 40% increase in the number of qualified applications turned away since 2010 (AACN, 2016a). Due to the increase number of applications, nursing schools are attempting to accommodate more students into their programs. In order to effectively educate more students though, it is necessary to have a sufficient number of nurse faculty. This same report states that of the 208 schools reporting reasons for not admitting all qualified applications, 55.8% were due to the insufficient number of faculty (AACN, 2016a, p. 92). In a separate report specifically regarding faculty vacancies, of the 821 schools that responded, 56.2% had faculty vacancies and 16.2% did not have vacancies but needed additional faculty (AACN, 2016b). 15.2% of the vacancies were specifically for nurse educators in baccalaureate nursing programs (AACN, 2016b).

Nursing applications numbers are increasing rapidly however the number of faculty available to educate students has not seen the same rapid growth. The increased age of nursing faculty indicates there will be a surge in retirement of nurse educators in the next 5-10 years. The retirement of these educators could negatively affect the success of nursing programs. However, as the NLN (2005) urged educators to reflect on the effectiveness of their practices, it is also necessary for graduate nursing programs to evaluate their programs and their ability to produce a nurse educator with at least some qualities inherent of effective teaching. Entering the nurse educator workforce with knowledge of content, personality traits, and classroom management skills helpful to effective teaching is important to success of nursing programs and as new faculty nurse numbers increase soon.

Literature related to nursing education and effective teaching was not as robust concerning effective teaching in the didactic setting. Literature is available more widely regarding to effective teaching in the clinical setting (hospital, outpatient health, community health). While the qualities/behaviors necessary for effective teaching in the clinical setting are most likely similar, the context of practical experience and student-teacher ratio adds a layer of complexity quite different than the didactic setting. National organizations such as the NLN and AACN provide standards from which nursing programs should frame their education while providing best-practices for educating nursing students. However, even the NLN sought help from nurse educators to evaluate the effectiveness of their teaching with the urge to use strategies such a collaboration, mutual trust, respect, equality, and accepted differences (NLN, 2005). To date, there has been no research using the Teacher Behavior Checklist regarding effective teaching in nursing education. The few studies available show findings with similarities such as: student-centered, knowledge of content, continued learning to stay current, variety of pedagogical practices, certain personal qualities, and continual feedback (Gardner, 2014; Hicks & Butkus, 2011; Pratt et al., 2007; Schaefer & Zygmunt, 2003; Stein, et al., 2011). Pedagogical practices used by nursing educators are commonly adapted from research of other disciplines indicating a need for further research to create and disseminate practices specific to nursing education. Personal qualities of nurse educators identified of effective teaching pertain to integrity, professionalism, humor, enthusiasm, motivation, trust, care and appreciation (Gardner 2014; Hicks & Butkus, 2011; Pratt et al., 2007; Crookes et al., 2013; Stein et al., 2011).

This study aimed to determine baccalaureate nursing student and nursing faculty views of effective teaching. Using the Teacher Behavior Checklist, a psychometrically sound tool, participants were sent an email containing a link to an online survey (Keeley, Smith, & Buskist, 2006). Baccalaureate nursing students ( $n=353$ ) and nursing faculty ( $n=26$ ) were sent the email with a response rate of 25.2% ( $n=89$ ) and 69.2% ( $n=18$ ) respectively. Participants were asked to rank order the top 10 qualities and associated behaviors they perceived as effective to nursing education.

Results of the study found students and faculty agreed on five of the top 10 behaviors identified: (a) knowledgeable about subject matter, (b) approachable/personable, (c) enthusiastic about teaching and about topic, (d) effective communicator, and (e) realistic expectations of students/fair testing and grading. Students and faculty agreed on four of the top 5 qualities/behaviors excluding realistic expectations of students/fair testing and grading. Faculty completed their top 10 identifying: (a) creative and interesting, (b) promotes critical thinking/intellectually stimulating, (c) presents current information, (d) confident, and (e) respectful. Students completed their top 10 identifying: (a) understanding, (b) happy/positive attitude/humorous (c) encourages and cares for students, (d) flexible/open-minded, and (e) strives to be a better teacher. Statistical differences were found in four qualities/behaviors ranked in the top 10: (1) creative and interesting; (2) present current information; (3) promote critical thinking/intellectually stimulating; and (4) understanding.

The findings in this study show strong agreement with previous studies completed using the TBC. In comparison to findings in the original study using the TBC, students agreed on nine of the top 10 qualities/behaviors identified of effective teaching. Faculty agreed on eight of the top 10 qualities/behaviors identified of effective teaching compared to original findings. The results of this study indicate generalizability of TBC use across disciplines and its ability to identify effective qualities/behaviors inherent of master teachers. Further research is needed across several institutions with baccalaureate nursing programs as well as comparison of baccalaureate programs views of effective teaching to that of associate degree nursing programs.

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## I 02 - Effective Teaching Strategies

### Improving Learning Outcomes With Podcasting

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#### Abstract

Nursing Education Faculty need to utilize a variety of evidence based teaching strategies to meet the diverse learning styles of students, as well as address the social, cultural and historical influences that can impact learning outcomes. This mixed method research studied supplemental podcasts as a teaching strategy in an Accelerated Bachelor's of Science in Nursing (ABSN) degree program. Podcasts utilize devices and technologies that provide mobile learning, anytime, anywhere.

*Purpose:* There is a need to determine the impact of the mobile media revolution on instructional design and learning effectiveness (Maag, 2006, p. 483). There is a limited amount of research related to podcasting in nursing education, and this study adds to the body of research on mobile learning. It has been purported that incorporating podcasting follows best practice by providing learning materials to suit individual students' learning styles" (Walmsley et al., 2009, p. 159). Informing the nursing education community of the efficacy of podcasting through dissemination of findings can promote podcasting as a viable, effective tool in support of student centered learning. There are many advantages to educators and students from research on assessment of learning outcomes derived from the integration of instructional design and advanced technology.

*Background:* Students enrolled in ABSN degree programs often experience high levels of stress while in a rigorous, time compressed program (Meyer, Hoover, & Maposa, 2006; Penprase & Koczara, 2009; Utley-Smith et al., 2007). Podcasts utilizes the devices and technologies that surround students, "in an attempt to empower and enrich their learning, wherever and whoever they are" (Stead, 2005, p.3). Podcasts take "the learning to the learners when they have time to learn" (Stoten, 2007, p. 57).

Preparation for the NCLEXRN® is a critical component of a nursing curriculum. Many nursing programs utilize products and services from providers of technology-based educational, curriculum and assessment solutions for program evaluation. These materials are purported to facilitate nursing students in passing the NCLEXRN®. Review of data obtained from this type of testing is a reliable and valid means of measuring learning outcomes, as the materials and exams have been statistically analyzed, and have regional and national recognized benchmarking. Utilizing podcasts as a supplemental resource in review of assessment exam concepts has potential to improve learning outcomes.

Listening, as a primary method in the learning process, predates written forms of communication. As adult learners, ABSN students may benefit from flexibility within educational programs and creative teaching methods. Educational podcasts can be distributed on course management systems, instructor websites, and public video websites such as YouTube, which allows students to interact with content at their convenience.

*Theoretical Framework:* There has been a plethora of literature and reports on the gap between theory, research and practice. There needs to be intentional application of theory to practice guiding teaching and learning strategies. Theory supports addressing social, cultural, and emotional aspects that intertwine with the process of learning. Vygotsky's Cultural Historical Activity Theory anchors podcasting to the underlying socio-cultural milieu of time constraints, stressors of multiple roles, and rigor of nursing curriculum.

*Research Questions:* What is the effect of a supplemental podcast as a learning strategy on ABSN program students' ATI test scores?

H<sub>0</sub>: There is no difference in ABSN students' ATI test scores between students who have listened to supplemental podcast as a learning strategy and those that have not accessed the supplemental podcasts.

H<sub>a</sub>: There is a difference in ABSN students' ATI test scores between students who have listened to a supplemental podcast as a learning strategy and those that have not accessed the supplemental podcast.

How do students in an ABSN program perceive the value of learning through listening to podcasts?

*Method:* Sample of convenience consisting of Accelerated Bachelor's of Science in Nursing (ABSN) degree program students enrolled concurrently in Nursing Research and Maternal-Newborn Nursing courses. (N= 30). Internal IRB approval was received, and informed consent was obtained from students. Participation was voluntary. Prior to a required end of course assessment exam, students were provided a podcast reviewing key points from their review book. Test scores were compared between the students that listened to the podcast and those that did not through statistical analysis, ANOVA. Survey post ATI exam consisting of a 5 point Likert scale on perceptions of podcasting as a learning tool.

*Findings:* An analysis of variance statistically significant at  $p \leq .05$  level,  $F(1, 29) = 8.462$ ,  $p = 0.007$ . Reject the null hypothesis and accept the alternative hypothesis.

Cohen's  $d$  calculated for effect size in this study is  $d = 1.09$ . Statistical literature reports many educational researchers identify effect sizes  $\geq 0.20$  to 0.25 as important related to academic achievement (Duriak, 2009; Valentine & Cooper, 2003). Survey demonstrated that 78% felt the podcasts increased their understanding of the course concepts.

*Discussion:* There are many pedagogical benefits to the use of podcasting as a teaching strategy. Some students prefer learning through listening; it can be motivating for students who do not like reading. Students can review difficult concepts, prepare for exams, and engage in reflective learning (Smith & McDonald, 2013). Research has shown that retention and the ability to apply concepts are "supported by intentional podcast segmentation" (Abate, 2013). Students can meet their individual learning needs with unlimited opportunities to review the podcasted materials (McSwiggan & Campbell, 2017). A single instructor with minimal institutional support can easily implement the use of these new technologies. Instructors may benefit from recording repetitive explanations, descriptions, illustrations and connection of concepts. The spoken word can influence a learner's cognition, adding clarity, meaning, and motivation by conveying a sense of the person creating those words.

*Conclusion:* Including podcasting as a teaching strategy is supported by evidence, experience and supports students' sociocultural milieu. Students have reported enjoying listening to the podcasts, some reporting listening "over and over," requesting more podcasts added to their courses (Dudas, 2012, p. 476). Faculty's use of podcasts has a growing base of evidence and experience, and values students' needs. As more faculty are presented with the benefits of these tools for student learning, there can be greater incorporation into professional practice (Mostyn, Jenkinson, McCormick, Meade & Lynn, 2013).

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## I 03 - End-of-Life Care Training

### Education/Training in End-of-Life Care for Certified Nursing Assistants in Long-Term Care

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#### Abstract

**Background:** The growth in the numbers of older adults in the United States warrants appropriately prepared health care providers at all levels that will be able to care for this population effectively. First line caregivers such as Certified Nursing Assistants (CNA) need education and training in end of life care so that they can provide high quality care for residents and families in the long term care (LTC) setting. The inadequate education of CNAs as the first line caregivers of residents in LTC facilities as they face the challenges of end of life is a concern. The purpose of this quality improvement project was to improve the education and training of CNAs caring for residents in a LTC facility at the end of life.

**Methods:** CNAs were recruited from a long term care facility in Western New York to attend an educational intervention consisting of six 45 minute sessions on various topics selected by the researchers using the curriculum from *Core Curriculum for the Hospice and Palliative Nursing Assistant*. Pretests and posttests were given to assess changes in knowledge and a satisfaction survey was used for the CNAs to identify additional learning needs.

**Results:** Nineteen CNAs completed the six education and training sessions. Data analysis revealed a significant increase in knowledge for the participants. CNAs were also able to identify additional learning needs.

**Conclusions:** Significant improvement in knowledge was seen after attendance by CNAs at the educational intervention. CNAs working in LTC facilities need education and training in end of life care so that they can provide appropriate and effective care to residents and their families. Education and training for CNAs led to increased knowledge of end of life care and desire for more educational opportunities. Increased knowledge translates into improved care provided to residents and their families in the LTC setting. CNAs in this quality improvement project were able to apply the knowledge and training they had received to their daily tasks at work. This was a successful educational program for the CNAs who participated. All CNAs should have education and training on end of life care so that these caregivers are better prepared to care for the growing elderly population. CNAs should be considered valued partners with all health care providers, educated and prepared for their significant involvement in all aspects of resident and family care at the end of life.

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## I 03 - End-of-Life Care Training

### Examining Nursing Student Stress in an End-of-Life Care Simulation: Grade Level and Simulated Patient Type

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#### Abstract

**Brief Review of the Literature:** The American Association of Colleges of Nursing (2016) recommends incorporating end-of life care into undergraduate nursing curricula. This recommendation is supported by the Robert Wood Johnson Foundation and has been placed in the National Licensure Examination Detailed Test Plan (Kopp & Hanson, 2012). Traditionally, nursing education has not provided nursing students with exposure to end-of-life care (Gillan, Parameter, Van der Riet, & Jeong, 2013; Kweekeboom, Vah, & Eland, 2005). As such, newly graduated nurses have reported dissatisfaction with their preparation (Kweekeboom et al., 2005). Newly graduated nurses have experienced anxiety and uncertainty when caring for a dying patient; these feelings have served as the catalyst for nearly 20% of nurses to leave the profession within their first year (Gillan et al., 2013; MacKusik & Minkic, 2010).

**Purpose:** The purpose of this quasi-experimental study was to examine the relationship between undergraduate nursing students' stress before and after participating in an end-of-life care simulation, using either simulated patient type: a high-fidelity mannequin or a standardized patient. The comparison between physiological and psychological stress, grade level, and patient simulators occurred due to little research into their effects on students (Aliner, Hunt, Gordon, & Harwood, 2006). Psychological stress was examined utilizing Spielberger's State and Trait Anxiety Inventory (STAI) Scale, Form Y-1; whereas physiological stress was examined utilizing heart rate, systolic blood pressure, and diastolic blood pressure. Furthermore, grade level was differentiated between junior and senior level nursing students in a baccalaureate program.

#### **Research Questions:**

- Among undergraduate nursing students participating in an end-of-life care simulation, is the relationship between simulated patient type and psychological stress moderated by grade level?
- Among undergraduate nursing students participating in an end-of-life care simulation, is the relationship between simulated patient type and physiological stress moderated by grade level?

**Intervention:** Prior to conducting the research, IRB approval was obtained. The 159 participants were randomized into participating or observing care for either of the two simulated patient types, standardized patient or high-fidelity mannequin. A theater student served as the standardized patient. Before and after participating in the simulation, participants had to fill out the STAI Form Y-1, take their partner's heart rate, and obtain blood pressure per automated noninvasive blood pressure cuff on the left wrist. All findings were documented.

**Statistical Analysis -** The research occurred in the Fall semester of 2016 and incorporated 57 junior and 102 senior level undergraduate nursing students. For the junior level students, 32 had the high fidelity mannequin and 25 had the standardized patient for their simulation. Whereas for the senior level students, 47 had the high-fidelity mannequin and 55 had the standardized patient as the simulated patient.

The research utilized two-way ANOVAs to examine the relationship between grade level and simulated patient type on both psychological stress and physiological stress. There were no statistically significant interaction effects between patient type and grade level on psychological stress ( $F(1,155)=0.411$ ,  $p=0.52$ ). There were no statistically significant main effects by grade level on psychological stress ( $F(1,155)=1.347$ ,  $p=0.248$ ); nor were there statistically significant main effects by grade level on psychological stress ( $F(1, 155)=1.247$ ,  $p=0.248$ ). However, junior students had higher mean scores ( $M=28.50$ ,  $SD=38.09$ ) than senior students ( $M=21.08$ ,  $SD=31.45$ ). It is worth noting that simulated patient type impacted psychological stress at the trend level ( $F(1, 155)=3.137$ ,  $p=0.08$ ). The results showed a very small effect size ( $\eta^2=0.02$ ). Greater psychological stress, for both grade levels, occurred when care was given to the high-fidelity mannequin simulated patient ( $M=29.55$ ,  $SD=38.41$ ), than with the standardized patient simulated patient ( $M=18.00$ ,  $SD=28.19$ ).

Physiological stress was measured by heart rate, systolic, and diastolic blood pressure. For heart rate, there was no statistically significant interaction effect by patient type and grade level ( $F(1, 155)=0.530$ ,  $p=0.47$ ). Also, there were no statistically significant main effects when examining the relationship between patient type on percentage change in heart rate ( $F(1, 155)=0.000$ ,  $p=0.47$ ) and grade level on percentage change in heart rate ( $F(1, 155)=0.025$ ,  $p=0.88$ ). However, junior nursing students experienced greater percentage change in heart rate ( $M=4.11$ ,  $SD=15.54$ ) than senior students ( $M=3.80$ ,  $SD=12.33$ ). The junior students experienced the greatest physiological stress when the simulated patient type was the standardized patient ( $M=5.05$ ,  $SD=20.24$ ). For systolic blood pressure, there was no statistically significant interaction effects between patient type and grade level on percentage change in systolic blood pressure ( $F(1, 155)=0.369$ ,  $p=0.54$ ). Also, there were no statistically significant main effects by grade level on percentage change in systolic blood pressure ( $F(1, 155)=0.010$ ,  $p=0.92$ ) or by patient type on percentage change in systolic blood pressure ( $F(1, 155)=-.528$ ,  $p=0.47$ ).

The greatest amount of physiological stress, when measured by systolic blood pressure, occurred in senior nursing students when the simulated patient type was the high-fidelity mannequin ( $M=3.11$ ,  $SD=15.88$ ). There was no statistically significant interaction effect between patient type and grade level on physiological stress, as measured by percentage change in diastolic blood pressure ( $F(1, 155)=0.339$ ,  $p=0.56$ ).

Furthermore, there was no statistically significant main effect by grade level on percentage change in diastolic blood pressure ( $F(1, 155)=0.562$ ,  $p=0.46$ ) or patient type on diastolic blood pressure ( $F(1, 155)=1.190$ ,  $p=0.28$ ). The greatest change in diastolic blood pressure occurred when the high-fidelity mannequin was utilized with the senior nursing students ( $M=5.54$ ,  $SD=12.80$ ).

Overall, both grade levels appeared to experience greater psychological stress, as measured by percentage change in STAI Form Y-1 with the high-fidelity mannequin. In addition, both grade levels appeared to experience greater physiological stress, as measured by percentage change in systolic and diastolic blood pressure, when the simulated patient type involved the high-fidelity mannequin. However, the exception occurred at the junior level with percentage change in heart rate as the greater physiological stress occurred with the standardized patient.

**Findings in Relation to the Literature:** Previous research has not examined the effects of grade level on undergraduate nursing students' stress when participating in an end-of-life care simulation with either a high-fidelity mannequin or standardized patient. Ramasama Venkatsalu, Kellher, and Hua Shao (2015) found that first year nursing students preferred learning end-of-life care in the laboratory setting rather than the didactic portion of a course. Nursing educators are in a position to provide lessons by incorporating simulations, such as end-of-life care, that cause measureable stress.

By understanding which patient type causes greater amounts of stress, nursing educators can base curricula on the holistic needs of the learner. While this research occurred at one site, it opens the door for further research into nursing student stress in an end-of-life care simulation and its effect of grade level. This research found that 31.4% of the sample size has been diagnosed with anxiety, which is consistent with previous research. Chen, Chen, Sung, Hsieh, Lee, and Chang (2015) found that 32.6% of 625 nursing students experienced depressive symptoms, including anxiety at a community college. Such statistics cannot be ignored when making curricular decisions.

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## I 04 - Innovations in Health Promotion

### Fidelity Testing of an HIV Prevention Intervention: An Opportunity to Enhance Nursing Students' Research Experience

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#### Abstract

**Background and Significance.** In the United States, Acquired Immunodeficiency Syndrome (AIDS) continues to be a leading cause of death of young adults. Both adolescent and adult women are disproportionately at risk for heterosexual transmission of Human Immunodeficiency Virus (HIV) infection in comparison to men. Heterosexual contact accounts for 85% of HIV infection in adolescent females compared to 3% in adolescent males. Women in general may be vulnerable to heterosexual transmission of HIV related to their often unequal status in relationships, as gendered power relationships between men and women may affect a woman's ability to take steps to reduce risk for infection. This appears particularly relevant to adolescent young women, and underscores the need to design interventions that provide for the opportunity to listen to their perspectives about how power may construct and constrain their choices in sexual decision-making.

There is a need for proven HIV prevention intervention studies in general, and specifically interventions that are geared toward adolescent young women to reduce heterosexually mediated HIV infection. Given this need, there are calls to replicate best evidence interventions and to further investigate effective, evidence-based interventions that are adapted, translated, or disseminated for the adolescent population. Notwithstanding disparities in socioeconomic status and insurance coverage, 91% of children ages 6-17 have a usual source of health care in which they receive primary care services. Therefore, an opportunity exists to reach adolescent young women and adapt proven HIV prevention interventions to their needs in primary care settings.

Motivational interviewing (MI) and behavioral skills building (BSB) are modes of behavioral intervention that have proven to be efficacious and are dynamic and flexible enough to address cultural inclusiveness and sensitivity, as well as adolescent and adult developmental differences. MI and BSB HIV prevention interventions reduce and delay sexual intercourse, increase condom use, decrease number of sexual partners, and decrease sexually transmitted infections.

Strengths of MI and BSB approaches include the dynamic and flexible nature of these methods that lend to the ability to tailor interventions to individual needs. Conversely, the fluidity of the methods poses a threat to intervention fidelity, the degree to which an intervention is delivered as intended. To address this threat, fidelity testing is imperative.

Fidelity testing can be aided by the incorporation of nursing students into the research team. Notwithstanding the importance of providing sound methodology in the development of behavioral interventions, engaging students in hands-on participation with faculty in research endeavors may motivate students to pursue a research career. Given the nursing faculty and nurse scientist shortage, it is important to foster the next generation of nurse researchers through active engagement in the research process.

To these ends, there were three objectives:

- 1) Establish fidelity for an MI-BSB HIV prevention intervention
- 2) Determine training needs of health care providers delivering the HIV prevention intervention
- 3) Enhance nursing students' research experience

**Methods.** As part of a larger study investigating the feasibility of incorporating an MI-BSB intervention into primary care practice, three nurse practitioner graduate students were employed as research assistants to determine the training needs of primary care providers in delivering a behavioral HIV prevention intervention. Education for the intervention was provided to the research assistants in seven sessions, 3 hours in length. The interactive training sessions consisted of didactic information, discussion, and clinical simulation and included the topics of HIV and sexually transmitted infections, motivational interviewing, and behavioral skills building.

The Motivational Interviewing Treatment Integrity (MITI) Coding Instrument and the Behaviour Changing Counseling Index (BECCI) were used to measure the fidelity of the intervention, with training needs determined by fidelity testing results. The structure, process, and outcomes of incorporating nursing students into the research team members were measured.

**Results.** Use of the MITI and BECCA were both instructive and evaluative of motivational interviewing and behavioral skills building techniques, with training needs determined by an iterative process of fidelity testing that guided training session content. Fifteen hours of training was needed to attain fidelity in the delivery of the MI-BSB intervention. Students reported an enhanced understanding and interest in the research process, increased knowledge and skill development related to research methods, and saw the research experience as relevant to clinical practice. The faculty member observed students actively engaging in the research process, developing teamwork skills, and expressing enjoyment of the experience.

**Conclusions.** Intensive MI-BSB training was needed to achieve fidelity of the HIV prevention intervention. Nursing students were incorporated effectively into the research team with clear benefits for both students and faculty.

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## I 04 - Innovations in Health Promotion

### "Headache Tools to Stay in School": An Educational Guide for Nurses and Students With Headache

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#### Abstract

In recent years, there has been a significant push towards increased inclusion of students with chronic illness or complicated symptomology in mainstream schools (Jackson, 2013). This reentry process is often complicated by transition barriers and challenges, including absences due to illness and doctors' visits, and difficulties with classroom accommodations (Jackson, 2013). Collaboration between the student, their family, school officials, and health care professionals is necessary to ensure a smooth transition back to school, with school nurses at the forefront of implementing those health care accommodations within school premises. Many chronically ill students have legally enforced school accommodations that require the school nurse's regular and substantial involvement, but this involvement is also necessary and valuable in cases without Individualized Education Plans (Pufpaff et al., 2015). Thus, school nurses' roles and responsibilities have evolved significantly to accommodate these students and their individualized education plans, with increased expectations to evaluate, treat, and manage new and complicated cases previously managed outside of school.

One such chronic illness is pediatric headache, including diagnoses of new daily persistent headache, tension-type headache, and migraine. A review and analysis of recent literature found that 60% of children and adolescents are prone to episodic or acute headaches (Abu-Arafeh et al., 2010), with that percentage increasing upon the including of chronic headaches. School nurses must be proficient in a variety of health care related skills in order to most effectively address chronic and acute headaches. Assessing headaches through collecting the student's headache history and pertinent health information and performing a thorough physical exam comprise the fundamentals of the school nurses' practice. Specifically, school nurses must provide brief, yet adequate assessment and treatment, and determine when to encourage a child to remain in school versus dismissing the child early (American Nursing Association, 2010). As school nurses work in educational rather than medical settings, their care of pediatric headache should prioritize reducing students with headache's school failure and absenteeism.

Compared to providers in health settings with full access to colleagues and a medical team on site, the semi-autonomous nature of the school nurse, serving students and families in a uniquely isolated clinical context often necessitates independent development of methods of assessment and treatment (Smith and Firmin, 2009). Clinical guidelines must be delivered directly to school nurses in ways that acknowledge and account for their unique needs and resources. There are too few resources available to school nurses with information on providing efficient and effective care to students with headache.

Based on our review of available headache resources for school nurses, we developed a two-armed study addressing the necessity, implementation, and favorability of an educational tool designed for school nurses in supporting the complex needs of headache patients. Through the development and installment of a tailored, evidence-based educational tool available to school nurses, this study seeks to bridge the gap between the schools and medical and psychological care provided by outside providers by facilitating school nurses' delivery of effective and efficient care.

To fill this need, we created a clinical practice and educational guide for school nurses treating pediatric headache, "Headache Tools to Stay in School: An Educational Collaboration and Tool for School Nurses and their Students with Headaches, Migraines, and Concussions ©." This tool was developed by the nurses, neurologists, psychologists, researchers, and clinical support staff at a tertiary headache clinic in a large, urban northeast pediatric hospital, and includes sections on (1) lifestyle factors that may contribute to the presentation of headache; (2) checklists of suggested treatment plans and accommodations for managing students' headaches in school settings; (3) cautionary advice on when a child should seek further care; (4) medication overview charts to be used for education and reference; and (5) additional lists of apps, books, equipment, and websites for pain management and relaxation resources for students, parents, and school administrators. The guide contains documents intended for use by the school nurse as well as handouts and documents that can be used to facilitate collaboration between the school nurse, the student, the student's family, and outside healthcare providers.

The guide was implemented and evaluated over a three-month trial period by 31 school nurses. The participating school nurses gave the guide an overall rating of 4.46 out of 5, and nearly 2 out of every 3 respondents "agreed" or "strongly agreed" that the guide was helpful to their understanding and practice of managing headaches. These results may indicate the guide's potential for successful dissemination and implementation by other school nurses. Qualitative feedback was also collected and was instrumental in the updated version of the guide, presented in this presentation.

The results of this study reinforce the need for more readily accessible and comprehensive EBP guidelines, like "Headache Tools to Stay in School," to be available to school nurses. As greater numbers of children with complex medical conditions, including chronic pain conditions such as chronic pediatric headache, are attempting to reintegrate into typical school settings, school personnel must be properly prepared to handle the physical and psychological challenges that may arise. Continued dissemination of this guide may improve students' headache management under the informed care of school nurses, and may encourage the development of more evidence-based guides across a multitude of medical conditions.

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## I 05 - Mentoring Students

### Mentoring Online Students: Developing and Testing a Mentorship Model for the Capstone Practicum

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#### Abstract

**Purpose:** Students completing a master's in nursing degree in my online program are required to complete a practicum project working with a master's prepared mentor. During the practicum, students implement a scholarly project to meet an educational need or administrate a project in a facility, such as the workplace, or in the community. Given that students have no face-to-face contact with faculty who supervise the capstone practicum course, effective mentors are critical to student success. The purpose of this presentation is to describe the collaborative process used to develop, implement, and evaluate a mentorship model to guide both students and mentors in their critical roles during the online capstone practicum project.

**Methods:** The practicum course is divided into two parts. During part A, students develop a self-directed learning agreement. In part B, students report on their projects and submit all evidence of fulfillment of their learning agreement. The model was initially developed through a qualitative study that included content analysis of student reports (n=263 representing 28 part A classes) of characteristics of effective mentors and then Part B student confirmation of the identified categories. I organized the major categories of characteristics of effective mentors into a pyramid-shaped mentorship model for online program practicum experiences. The base or foundation of the pyramid was comprised of mentor characteristics including background, experience, and education. The central core of the pyramid was formed by mentor qualities and ways the mentor interacts with the mentee (resourceful, inspires and challenges, caring relationship). I presented this model at an international conference and dialogue with the audience suggested the need to refine the model.

Consistent with the collaborative approach used for initial development, to allow for student collaboration in model refinement, I posted the model and supporting materials in five (n=65) practicum B classes for student input. Based on their recommendations, I reorganized the mentor qualities and characteristics within the pyramid. They believed that the bottom of the pyramid that includes the two cornerstones is the foundation of the model. Thus, the two cornerstones are now *nursing knowledge* and *nursing experience*, for without these two key elements, there is not a profession known as *nursing*. Interconnected between the two cornerstones, in the middle and a very important part of the foundation is *caring*. The core of the model is now *Resourceful* with the apex being *Inspire and challenge*. Professional ladder categories (*educator, clinician, researcher, manager*) support the base and the core of the model. Once these changes were made, I posted the model in four (n = 52) practicum B classes and students confirmed that this model represented their positive experience with their mentor.

The model was again shared at an international conference two years after the first presentation. Student quotes indicated that the pyramid structure was too rigid to capture the essence of mentorship. Other images shared and discussed were a tree, lighthouse, and rainbow. I have continued to gather information (17 "A" n=221; 21 "B" n=207). The tree model is the one that most students connect with although there is interest in further exploring the lighthouse image. Students find that the image that resonates with them assists them to communicate about the model more clearly with their mentors (Scogin, 2016).

Since refinement, I implemented the model by presenting it to students in the first practicum course. Students are encouraged to use the model as they select their mentors and form working relationships. When students check in at required times during their 6-month project, I ask them about the use of the model and whether it helps or hinders. Their narrative responses are analyzed as well as data about frequency of use (Frahm, et al., 2013).

**Results:** Students in part A of the practicum have been using the model to help them select an appropriate mentor for their project experience. Additionally, they have been sharing the model with their mentors and using it to establish a relationship and determine the best ways that they can work together throughout the project. Students and mentors report that this provides clarity on how to work together, and gives them additional ideas for creative approaches to use. They find that the model facilitates reciprocal communication between the mentor and mentee (Sherman & Camilli, 2014). Since using this model, I have had fewer students report negative mentoring experiences during practicum check-ins or in part B.

**Conclusion:** Mentors play a critical role in guiding, supporting and challenging students to grow personally and professionally throughout the practicum experience, culminating in attainment of a master's degree in nursing. This refined mentorship model that is specific to a practicum conducted in the context of an online program facilitates appropriate selection of mentors and suggests ways that mentors and mentees can work effectively together.

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## I 05 - Mentoring Students

### University of Connecticut Major and Mentor: Nursing Mentoring Program

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#### Abstract

Undergraduate nursing education programs are challenging and inherently stressful. In fact, Cameron, et al. (2011) reported that over half of nursing school students debated dropping out. When academic institutions lose students to attrition it exacerbates the looming nursing shortage. To add to this dilemma, the American Association of Colleges of Nurses (2014) reports that by 2022, there will be a need for 3.44 million nurses in the United States, yet the demand and supply remain imbalanced. These statistics demonstrate the importance of developing programs to support and retain undergraduate nursing students to degree completion. With these facts in hand, our institution chose to enhance the positive dynamics of peer mentorship within the undergraduate nursing learning community as a gateway to student success and retention.

An innovative mentorship course was developed specifically for freshmen undergraduate students residing in a dedicated nursing learning community at a large academic institution. The mentorship course was developed by a graduate assistant assigned to the nursing learning community in collaboration with a faculty member and the director of pre-licensure nursing programs. This articulated, undergraduate course was built on the premise of Benner's (2001) novice (undergraduate students) to expert (dedicated graduate assistant and faculty member) model which conveys that through experience mentors progress to higher levels of performance. The course was offered to second semester freshmen students in the nursing learning community as a path towards leadership through mentorship. Ten students out of forty freshmen nursing learning community residents expressed interest in investing in their leadership potential by becoming student mentors for the upcoming freshmen. Eight students enrolled in the course. Two students withdrew due to scheduling conflicts. Six students completed the hybrid 1-credit curriculum and will be mentors with assigned freshmen mentees in the nursing learning community throughout the 2017-2018 academic year.

The course, titled "Major and MentoR:Nursing Student Mentorship" was developed in an effort to help students understand how they conceptualize mentorship and be better prepared for and able to articulate the reciprocal and collaborate learning relationship between mentor and mentee. Mentors must be willing to share things about themselves both positive and negative in order to build trust and connection with mentees. In an effort to facilitate self-discovery among the enrolled students the graduate assistant created a private course blog with biweekly assignments focused on the ways in each student uniquely transitioned to college and how the presence of a mentor would have aided them in the process. The students convened in class every other week for one hour with the graduate assistant and a faculty member who specializes in mental health nursing. During class sessions the blog posts were highlighted in a PowerPoint presentation and reviewed in detail to assist students in visualizing their leadership potential through mentoring others.

Faculty and student interaction, both formal and informal, are noted as key elements to students' ability to conceptualize leadership (Dunn, Odom, Moore, & Rotter, 2016). The same graduate assistant in the classroom maintained a weekly presence in the nursing learning community space in the evenings approximately 10 hours per week. This unique graduate assistant assignment encouraged the idea that faculty and student interaction, both informal and formal, are noted as key elements to students' ability to conceptualize leadership (Dunn, Odom, Moore, & Rotter, 2016). The goal is to continue this program with the ongoing presence of a graduate assistant in the nursing learning community to support the newly established mentors and encourage their journey from novice to expert mentor and future nursing leader. Becoming a mentor is often an essential step in a nurse's leadership development. The mentors are prepared to reciprocate a supportive presence to the new students within the nursing learning community. Helping students discover their untapped potential as mentors will only enhance their personal and professional success.

Research has shown campus living and learning communities foster a successful transition to academic life by providing curricular structure, meaningful relationships, sustained interactions, engagement, and deeper learning experiences. Living and learning communities have been known to cultivate strong academic and social connections as well as community and a sense of belonging (Spanierman, et al, 2013). Mentoring holds the potential to be a rewarding experience for all involved. A research study is intended in the fall of 2018 in order to draw on the students' experiences and provide a deeper understanding of how their participation in the mentorship course and subsequent role as mentors in the nursing learning community has influenced their personal and professional growth as well as their leadership capabilities.

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## I 06 - Online Learning Curriculum

### Does a Modified TeamSTEPPS® Online Educational Intervention Change Nursing Students' Attitudes?

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#### Abstract

Are RN to BSN students prepared for today's challenging healthcare environment? There is a great need to better educate nursing students on teamwork and patient safety because they will play a vital role as they transition to bachelor prepared nursing professionals. Students need to learn the value of teamwork (NACNEP, 2015), and often have limited exposure to such. Ineffective teamwork and poor communication in healthcare have contributed to many patient medical errors (Kohn et al., 1999; TJC, 2015). There are many initiatives that support these necessary components for clinical practice such as The Essentials of a Baccalaureate Education (AACN, 2008) which includes Scholarship of EBP and Interprofessional Communication and Collaboration. The Quality and Safety Education in Nursing (QSEN) Institute has developed and promoted Teamwork and Collaboration, Safety, and EBP as key competencies (2014). The Future of Nursing Report issued by the Institute of Medicine (IOM) in 2010, stressed the need for nurses to achieve competency in the areas of teamwork, communication, leadership, and EBP. Yearly, The Joint Commission (2015) produces the National Patient Safety Goals and the area of communication is the most frequent goal due to its contribution to patient medical errors. With many of these educational initiatives only occurring during the past decade, the attitudes and knowledge of nursing students regarding teamwork, communication, and patient safety have not been well studied yet. Therefore, exploring an innovative, evidence-based teamwork and communication program for online RN to BSN students is overdue. Team Strategies and Tools to Enhance Performance and Patient Safety, otherwise called TeamSTEPPS® (King et al., 2008) is an evidence based practice, patient safety program created for the healthcare setting. Originally, this was based upon several decades of safety and teamwork research originating from both the airline industry and US military. Following a joint venture in 2006, the Agency for Healthcare Research and Quality (AHRQ) and the Department of Defense tailored the program for all healthcare professionals in the clinical setting and have paved the way as leaders in the patient safety movement (King et al). TeamSTEPPS® promotes the use of standardized communication tools including five key competencies: communication, leadership, team structure, mutual support, and situation monitoring that are necessary for improved patient care outcomes (King et al.). Currently, there are training modules available for acute care, office based care, long term care, and dental care (AHRQ, 2016), however not for the academic setting for students. The purpose of this pilot study is to implement a modified TeamSTEPPS® educational intervention to measure nursing students' attitudes regarding patient safety and teamwork.

There are many studies in the literature supporting the positive outcomes of the TeamSTEPPS® programs in the clinical setting, however whether it can be applied to nursing students in the academic setting has a small amount of growing evidence. The following databases CINAHL, Medline, and PubMed were searched using key words "TeamSTEPPS®, attitudes, and nursing students" with limited results. In one study by Goliat et al (2013), they integrated TeamSTEPPS® into an undergraduate nursing curricula and demonstrated improvement in nursing student attitudes. In addition, an article by Meier et al (2012) studied medical students only and they created an entire course based upon TeamSTEPPS®. A similar study (Baker & Durham, 2013) incorporated TeamSTEPPS® into an Interprofessional Education course for nursing, medical, and pharmacy students. Several other research studies included a mixed group of healthcare students (Brock et al., 2013; Caylor et al., 2015; Jernigan et al., 2016; Sweigart et al., 2016) and demonstrated improved student attitudes following a TeamSTEPPS® intervention in some of the key competencies.

This exploratory, pilot study utilizes a pre/post survey design with a convenience sample of online RN to BSN students from one university with a sample size of 11 pre and 7 post. All students received an email explaining the project. Participation is both voluntary and anonymous. A modified TeamSTEPPS® program educational intervention was developed and made available to participants through an online link. Electronic surveys were sent via email using an approved university survey application, data was entered into SPSS, then analyzed using descriptive and non-parametric statistics. The 30-item TeamSTEPPS® Teamwork Attitude Questionnaire (T-TAQ) self-reported survey (AHRQ, 2014) was used to assess nursing students' attitudes about teamwork. The tool is a free, open source resource with 5 subscales correlating to the five competencies of the program available from <http://www.ahrq.gov/teamstepps/instructor/reference/teamattitude.html>. As a certified Master Trainer in TeamSTEPPS®, I customized the TeamSTEPPS® program materials available online at [www.ahrq.gov](http://www.ahrq.gov). Students received a hyperlink to access the educational training including select videos, instructor voice over, and audiovisual slides. This step is necessary because the traditional educational intervention is a face to face full day workshop intended for practicing healthcare workers. Institutional Review Board approval was obtained for this project.

The positive results of this pilot study will be used to inform the RN to BSN program whether to integrate the TeamSTEPPS® program into the undergraduate nursing curriculum. In addition, buy-in by nursing faculty has been obtained based upon these results that demonstrate teaching nursing students' teamwork concepts can positively influence their attitudes. By bringing TeamSTEPPS® to online RN to BSN students, their attitudes may influence their current clinical practice in the healthcare environment, thus the immediate potential to positively impact direct patient care outcomes is highly plausible.

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## I 06 - Online Learning Curriculum

### One Concept at a Time: Using VoiceThread to Engage Students in Learning Nursing Research

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#### Abstract

Heightening students' excitement of Nursing Research has always been a challenge. Limited articles and studies (Phillips, 2014; Tsai, Cheng, Chang, & Liou, 2014; Strickland, Gray, & Hill, 2012) have attempted to introduce creative ways to motivate student learning in regards to this subject. However, most of these studies involve gaming as a means to learning, which may not be conducive to the non-traditional or adult learner. One innovative online method that has positively changed nursing research in an RN-BSN online program is the use of VoiceThread. VoiceThread is a video-chat technological tool, which helps establish a continual faculty presence in an online classroom environment. Students can hear and see faculty relay information online while responding back using video chat, all in an asynchronous matter. The literature supports the use of VoiceThread for enhancing educational learning on all educational levels and within multiple disciplines (Donnelly, Kverno, Belcher, Ledebur & Gerson, 2016; Chan, & Pallapu, 2012; Salas, 2012; Brunvand, & Byrd, 2011; ). By applying VoiceThread, a purchased online plugin that can be adapted through Blackboard, a research vocabulary review was created called 'Concept of the Day'. This instructional method follows the simple principles of language learning- see the word, hear the word, and visualize its meaning (Mai, Ngoc, & Tuan, 2013). In addition to the usual way of teaching research, via Powerpoint lectures, videos, correlated assignments, etc., each morning students are presented with an e-mail that links them into a VoiceThread containing the research word of the day. Students can visualize a term, hear the pronunciation of term, and be given a quick 3-minute or less audio and visual description of the research concept to enhance comprehension of terminology. Not only does this engage the online student daily; but also, offers students the ability to ask direct questions immediately of the faculty regarding the concept, and within a reasonable amount of time, have instructor feedback. "Concept of the Day" also, provides students the ability to listen to research terminology on their own time, as well as return to learn to the term as many times as needed throughout the course. Overall students' feedback was extremely positive with this teaching methodology. Summative evaluation shows that students have a better grasp of research concepts when compared to prior quarters/semesters using other methods of pedagogy. As for versatility, the implication of employing 'concept of the day' is not limited to teaching nursing research; nor is the format strictly adherent to using VoiceThread. Nurse educators can extend the 'concept of the day' to other online courses. In addition, if VoiceThread is not available, other formats of distribution such as Podcasts or simple PowerPoints can adapt the principles of 'concept of the day' to enhance the learning curve. As we move forward in the academic realm, online learning will be the mainstay of education. Incorporating creative strategies, such as 'concept of the day' and technologies such as VoiceThread, are needed to promote an active and engaging learning experience for our student.

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## I 07 - Patient Education

### Using the Teach-Back Method in Patient Education to Improve HCAHPS Scores

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#### Abstract

Teach-back is an educational technique which involves patients and /or primary learners in the teaching process and asks patients to restate information as it has been taught to them (Agency for Healthcare Research and Quality [AHRQ], 2015). National Quality Forum (NQF) has recommended using teach-back methodology as one of its 34 endorsed methods of safe practice for healthcare professionals (NQF, 2010). Much information that is taught in healthcare settings is complicated and it has been estimated that up to 80% of material is not able to be recalled immediately after a teaching session.

Teach-back has been shown to be an effective method of patient teaching. Patients with heart failure (HF) can recall discharge information better when the teach-back method is utilized (White, Garbez, Carroll, Brinker & Howie-Esquivel, 2013). Peter et al. (2015) demonstrated significant improvement in HF readmissions utilizing the teach-back method of teaching in their discharge process. In a recent study of HF patients, utilizing the teach-back method reduced 30 day HF readmission rates from 18% - 13% (Haney & Shephard, 2014). In a systematic review of nine studies, Dantic (2014) found that the technique of teach-back in the education of COPD patients resulted in a significant proportion of correct use of inhalers. Using teach-back as a discharge teaching methodology for total joint patients demonstrated a decrease in 30 day readmissions by 36% (Green, Dearmon & Taggart, 2015).

In a pilot educational program for nurses to improve their patient teaching strategies, Fidak, Ventura and Green (2014) conclude that formally educating nurses in the technique of teach-back results in improved knowledge retention of nurses and increased utilization of material taught. However, they also recommend that more research is needed to evaluate the use of teach-back on patient outcomes and satisfaction. Although these cited studies have demonstrated improvement in retention of knowledge of health care related information, there remains a gap in the literature regarding the effect of using this approach in raising patient satisfaction scores as measured by Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores in the areas of patient education. Do patients perceive that nurses are “always” communicating and teaching them the information they need regarding

**Design** - A quasi-experimental design was utilized for this study. Two similar medical units were chosen; one as the intervention group and one as the control. These two units were chosen as they have a similar acuity level, admission and discharge rates and staffing ratios.

**Sample** - The intervention group consisted of all the permanently assigned nurses on a designated nursing unit (N=24). The one hour teaching intervention was presented as an educational requirement for the intervention unit and each nurse was paid for the extra hour and awarded one contact hour. The control group consisted of the permanently assigned nurses on another similar medical unit (N= 30). The nurses on this unit were blinded to the intervention in which the experimental unit nurses participated. Nurses on the control unit continued to apply the standard of care to their patients using their usual method of teaching patients and families.

**Instruments** - The pre-posttest consists of 6 multiple choice questions (3 multiple choice and 3 true-false) and 3 opened ended, short answers regarding their knowledge attitudes and beliefs of the teach-back method.

The open-ended questions addressed the current use of teach-back in their nursing practice as well as their perceptions of the technique and if the technique should be a mandatory part of a nurse’s practice. One example of the 3 open ended questions is: What are your thoughts about the technique of “teach-back”? State any positive or negative comments.

Content validity of the pre-posttest was established by several expert nurse educators. It was estimated that the 9 item test took 5-7 minutes to complete.

**Procedure** - Those in the intervention group signed consent, and took the pretest. Immediately following the pretest administration, a teaching session on the educational technique of “teach-back” was held. Six different teaching sessions were held in late November and December 2014 over a four week period to accommodate all the direct care nurses on various shifts and was done by the same educator to ensure greater consistency. This one hour teaching session used various modalities including lecture, role play, discussion and videos. Each nurse participant took the same test one month after the teach-back technique was introduced. This lapse in time period was planned to capture any changes in perceptions by nurses as well as to determine an increase in their knowledge of “teach-back”. The tests were coded using the nurse’s employee ID number to allow for anonymity. Since the education documentation in the patient record did not include the use of teach-back, nurses on the intervention unit were instructed to document specifically regarding using the technique of teach-back in their patient education sessions. The nurse educator on the intervention group where the intervention was located monitored the documentation through regular audits of charts throughout 2015.

After the teaching intervention was implemented by the nurse educator to all permanently, regularly scheduled nursing staff on the intervention unit, 12 months of HCAHPS data (January 2015- December 2015) were collected from both the intervention and control group units. This data was compared to the previous 6 months of HCAHPS scores (July 2014- December 2014). Nurses from both units were not given information about the analysis of these scores so as to prevent biasing the results. Specifically, seven scores from HCAHPS were collected and analyzed which were applicable to discharge teaching topics.

**Data Analysis** - Quantitative analysis was done for multiple choice answers on the pre and posttest. Paired t-tests were used to analyze the difference in scores in the pretests and posttests of “Teach-Back” using SPSS version 18. Independent t-tests were used to test a difference between the intervention and control groups for significant differences in HCAHPS scores for the pre-intervention (July-December 2014) and post intervention time periods (January-December 2015). Qualitative thematic analysis was done on the open-ended questions.

A significant improvement in the knowledge scores in the pretest-posttest was found using paired t-tests ( $p=.002$ ). For seven HCAHPS statements related to patient teaching, only one demonstrated significant improvement in the intervention group during one quarter (three months) after teach-back was initiated  $p=.025$ . This question was “Tell you what new medicine was for”. A positive trending of scores was noted in the intervention group however, some positive scores were also noted in the control group.

Qualitative analysis of nurses' comments demonstrated strong support for teach-back in the posttest. The common theme among the 24 nurse respondents was one of support for the use of teach-back in nursing practice. Nurses gave some specific examples when teach-back was used in his/her practice which included psychomotor skills such as the correct use of inhalers and self-administration of insulin and cognitive learning specifically dealing with follow-up care after discharge. An increased use of teach-back and positive support for using the teaching technique were expressed more in the post test when compared with the pretest. This finding was expected as a majority of nurses had expressed that they had very little knowledge of the teach-back technique prior to the teaching intervention. Nurses supported having teach-back as a mandatory part of their practice but with the caveat of needing more time allotted in their busy schedules in which to do patient and family teaching. In answer to the open-ended question, "Do you think the use of 'teach-back should be mandatory and consistently applied to patient education? Why or why not?" one nurse stated "realistically time would be a big factor, though it is very useful". The question arises regarding how much education is being provided to patients based on the many needs of patients and time constraints of direct care nurses.

Conclusions - The t-score ( $p=.025$ ) shows there is a significant improvement on the question, 'Tell you what new medicine was for' on HCAHPS scores for the intervention unit. There was a positive trending in some of the other scores related to discharge teaching although not statistically significant. The qualitative responses of the nurses in the intervention group demonstrated support for the use of teach-back as an evaluation of taught material. Although nurses recognized the value of using teach-back in their patient education, the perceived lack of time emerged as a theme from the open-ended statements. Patient and family education can be accomplished in a variety of ways through written materials, videos embedded into the intranet system that patients can access in addition to the one to one explanations provided by members of the healthcare team including nurses. More research needs to be done to measure the outcomes of nurses' knowledge and the use of teach-back in patient education. Patient and family education continues to challenge nurses in healthcare settings and teach-back is one technique that may improve outcomes, particularly patient satisfaction.

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## I 07 - Patient Education

### Improving Patient Self-Efficacy by Incorporating Patient Teaching by Registered Nursing Students in Primary Care

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#### Abstract

**Introduction:** Primary care needs to meet the health care needs of a growing population seeking care. A shortage of primary care providers makes scheduling primary care services difficult for patients in underserved areas. Office visits attempt to provide complex care in a short period of time to accommodate more patients. Chronic disease is expensive to treat. When patients have difficulty understanding the plan of treatment, exacerbation of symptoms can occur. Some patients use urgent care and emergency room services when primary care is not available. Integrating nursing intervention into primary care to enhance available services offers an expanded team of caregivers and improves patient self-efficacy. This project utilizes registered nursing students to interact with patients by presenting educational information about chronic disease.

**Methods:** Patients with chronic disease seeking care in a primary care clinic participated in a pilot study to evaluate changes in self-efficacy after education about their chronic disease. Thirty-nine adult patients participated. The Self-Efficacy for Managing Chronic Disease 6-Item Scale was used. Registered nursing students participated as patient educators, developed teaching tools and presented chronic disease teaching to patients in the study. The student experience was evaluated using the Student Evaluation of Clinical Education Environment inventory.

**Results:** A paired t-test was used to evaluate the pre- and post-test patient results. Findings were statistically significant with  $p=0.000$ , showing an improvement in patient self-efficacy following the intervention. The student survey also showed a positive learning experience for the students with  $p=0.000$ .

**Discussion:** Enhanced education empowers patients. Socializing student nurses in primary care was shown to be a valuable experience. Continued evaluation and enhancement of primary care services must be done to meet the growing health care demands of our nation.

**Keywords:** primary care, self-efficacy, student nurses, self-care, patient education

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## I 08 - Simulation Use in Health Disparities

### Using Evidenced-Based Simulations to Enhance Care of Vulnerable Populations

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#### Abstract

Negative attitudes and discriminatory behaviors of nurses and other health-care professionals towards individuals with health disparities are prevalent and are associated with serious adverse consequences to the health, quality of care, and quality of life. Simulations can provide valuable learning opportunities to develop students' awareness, knowledge and skills in working with vulnerable populations. Learning opportunities that facilitate an understanding of the lived experience of clients has the potential to change attitudes (Byrne, Platania-Phung, Happell, Harris, & Bradshaw, 2015). Additionally, authentic learning experiences can facilitate students' understanding of the trajectory of client experience and their associated response to client situations, thus improving clinical practice (Kelly, Berragan, Husebø, & Orr, 2016). Increasingly, experiential learning experiences through simulation are being recommended to teach students about the structural inequities and lived experiences of vulnerable populations, including the poor (Reid & Evanson, 2016), the mentally ill, (Byrne, Platania-Phung, Happell, Harris, & Bradshaw, 2015) and victims of domestic violence (Adelman, Rosenberg, & Hobart, 2015). The purpose of this presentation is to discuss the results of two multi-site research studies that focused on simulations with vulnerable populations: a poverty simulation and mental health simulation of care of a client with schizophrenia. Poverty is one of the social determinants of health. In order to deliver patient-centered care, it is important for nurses to have an understanding of the impact of poverty on health-related decisions (Reid & Evanson, 2016). Clients with mental illness experience health disparities in part due to the negative attitudes by health care providers and associated stigma associated with the disease. Simulation has great potential to provide learning opportunities to enhance student understanding of stigma, social justice, and health disparities (Mawji & Lind, 2013). The purpose of this presentation is to describe lessons learned from two multi-site studies of simulation based learning activities. Both studies were completed in undergraduate nursing programs and focused on improving understanding of and attitudes toward individuals experiencing stigma and health disparities. Study 1 compared changes in attitudes and understanding of students who completed a three-hour poverty simulation with a control group of students who did not complete the simulation. Five cohorts of 178 junior baccalaureate nursing students (each from a different nursing program) enrolled in a populations course participated in the study; two of the cohorts participated in the poverty simulation and three did not. A 21-item The Attitudes Towards Poverty Short Form (ATP-S) questionnaire was administered at the beginning of the course and at the end. The ATP-S A has a global score of a range of 21- 105 obtained by summing the item scores; higher scores indicate more positive attitudes towards poverty. Three subscales have been identified: Personal deficiency, stigma, and structural perspective. Assessment of students' beliefs about the link between poverty and health were also collected. Controlling for pretest group differences, posttest means for the experimental group (78.73) were 3.5 points higher than for the control group (75.72), which was significant at .007. Changes in posttest scores was attributed for the experimental group to growth in structural perspective subscales. There was a significant association between the simulation and participants' beliefs about the link between poverty and health due to living conditions (a structural perspective) rather than behavior, drifting into poverty, or no link (chi square = 14.1, p=.003). Study 2, also a multi-site study, explored the impact of a simulation on attitudes and behaviors towards individuals with schizophrenia. The purpose of this study was to determine if students who participated in the simulated learning activity would demonstrate a) greater knowledge about mental health problems; b) reduced negative attitudes towards individuals with schizophrenia; c) greater empathy; and d) greater behavioral intent to interact with clients with mental illness as compared to those who experience traditional mental health didactic and clinical learning experiences. This multi-site study used a quasi-experimental comparison of treatment and control groups of 145 students enrolled in a chronic illness course in their second year of undergraduate nursing education. The control group were exposed to traditional didactic classroom and practicum experiences. The treatment group additionally experienced a simulation which included individual simulated auditory hallucinations followed by a standardized patient interaction of a client with schizophrenia. Variables measured included empathy, attitudes about schizophrenia, fear and behavior intentions. An analysis of covariance model was used to test for differences between groups; the moderating effect of experience with people with mental illness was also examined. The intervention group showed significantly lower negative emotional perceptions, with greater difference for participants with less experience at baseline. Changes in empathy were not significant. The moderating effect of level of experience was evident for student report of decreased fear and increased intent to interact. Ongoing translation of educational practices aimed at preparing nurses to improve outcomes for vulnerable populations remains critical in our current healthcare environment. Nurses in all practice areas are likely to interact with individuals with mental illness or those living in poverty. Facilitating learning opportunities through evidence-based simulations to improve nursing attitudes and behaviors towards people experiencing stigma can enhance the quality of care and quality of life of those populations.

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## I 08 - Simulation Use in Health Disparities

### The Effect of the Poverty Simulation on BSN Student Knowledge, Skills, and Attitudes

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#### Abstract

**Background and Significance-** An estimated 14.5 % of people in the United States lived below the poverty line in 2014 (United States Census Bureau, 2015). In Arkansas, overall poverty rates are estimated at 18.5%, and are as high as 26% for families with young children. It is important to educate and sensitize nursing students to the realities of living in poverty, as well as to the impact poverty has on health and health-related decisions. High-fidelity simulation is one teaching strategy being used to help nursing students acquire knowledge, skills, and attitudes necessary to provide culturally competent patient-centered care (Patterson, & Hulton, 2012). The purpose of this research was to test the effectiveness of a high-fidelity simulation activity – the Poverty Simulation (Missouri Association for Community Action, 2011) – on knowledge, skills, and attitudes of poverty and poor people, of junior level nursing students enrolled in a pre-licensure BSN program.

**Methods -** For this mixed-method study, a total of 67 pre-licensure nursing students completed the Attitudes toward Poverty and Poor People survey (short form) at the beginning of the spring semester. The 21-item Likert scale has established validity and reliability (Yun & Weaver, 2010) and was used to determine pre-intervention knowledge and attitudes. Eight weeks later, the Poverty Simulation was conducted. The simulation took place in a large open room with 16 tables representing various community agencies set up around the perimeter and 11 clusters of tables/chairs set up in the center of the room representing families and individuals. Student participants assumed the role of individuals in low-income families. Family scenarios helped participants decide how to seek services and support, obtain financial assistance, and determine how to spend their money. The task of each “family” was to provide for basic necessities for one month, which was represented by four 15-minute time periods. The entire activity, including simulation and debriefing, lasted approximately 3 hours. A total of sixty-five students participated in the simulation activity. Immediately following the simulation activity, students again completed the Attitudes toward Poverty and Poor People survey (short form). Differences between baseline and post-simulation scores were analyzed. In addition, student participants submitted post-intervention reflections on the Poverty Simulation experience that were analyzed using qualitative methods that included coding, identification of common themes, and constant comparison.

**Results –** A total of 65 pre- and post-survey pairs were included in the final analysis. Participants had a mean age of 21.86 years, were predominantly white (86.2%), and most identified themselves as “Christian” (96.9%). The majority of participants (89.6%) described their families of origin as financially “somewhat secure” to “very secure” with the remaining 10.7% indicating “somewhat insecure” to “very insecure”. Fourteen (21.5%) participants indicated that their families had received public assistance.

The Wilcoxon signed ranks test was used to analyze survey data. Z scores were statistically significant ( $p < .05$ ) for 12 of the 21 items; indicating a shift toward more understanding and sensitivity toward the challenges faced by those living in poverty. Qualitative analysis suggested that the Poverty Simulation was “an eye opening experience” that helped students gain “insight” and “awareness”. Students described feelings ranging from “helplessness” and “sadness” to “guilt” and “frustration” as they worked through the simulation scenarios.

**Conclusions –** The results of this research suggests that the high-fidelity poverty simulation is an effective teaching strategy and is useful in improving BSN student attitudes toward poverty and poor people. While the generalizability of these findings are limited due to the relative homogeneity of the sample and the single site, the findings are consistent with a previous studies (Clarke, Sedlacek, & Watson, 2016; Patterson, & Hulton, 2012; Yang, Woomer, Agbemenu, & Williams, 2014) that found participation in the poverty simulation led to greater empathy for the experiences of those living with limited resources. In addition, participants indicated that the simulation really helped them to understand the importance of knowing what community resources are available. Use of the high-fidelity poverty simulation has the potential to have a positive impact on culturally competent care of BSN students.

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## I 09 - Technology Use in NCLEX® Success

### A Model for Sustaining NCLEX® Success

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#### Abstract

Schools of nursing are charged with educating the next generation of nurses who demonstrate the knowledge and clinical reasoning skills to become licensed and safe practitioners in the increasingly complex health care system. First time National Council Licensure Exam (NCLEX®) success is a key measurement, which holds schools of nursing accountable for strong preparation of their graduates. High failure rates may create a perception of lack of commitment to the ethical responsibility schools of nursing share for student success. State Boards of Nursing and accrediting bodies may impose sanctions on schools who do not meet benchmark goals for NCLEX® pass rates established by these organizations.

Recognizing this, coupled with concerns about a decline in their school's 2010 pass rate to 74.75% the authors created an individualized NCLEX® study process. This process is known as the Kaplan Learning Integrated Course (KLIC) and is based on the integrated testing and content review product used in the authors' institution. The purpose of KLIC is to achieve NCLEX® pass rates equal to or greater than the national average. This paper will describe the evolution of this process which was incorporated into the curriculum and resulted in first time pass rates 5.41-11.5% above the national Bachelor of Science in Nursing (BSN) NCLEX® average for four consecutive years. Institutional Review Board approval was sought for this retrospective review and granted as an exempt study through the authors' institution.

Anticipating the increase of one logit to the 2013 passing standard, the authors conducted a literature review to explore characteristics of students who were at risk for NCLEX® failure. Factors such as (a) English as a second language (ESL) (Hansen & Beaver, 2012; O'Neill, Marks & Liu, 2006; Woo, Wendt & Liu, 2009); (b) lag time, defined as delaying NCLEX® 26-33 days after a student completes the nursing program (Eich & O'Neill, 2007; Stone & Woodberry, 2006; Woo et al., 2009); (c) course failure defined as out of sequence students (OOS) (Frith, Sewell & Clark, 2005; Pennington & Spurlock, 2010); and (d) low scores on content readiness integrated testing (Sanders & Irwin, 2014) were all found to contribute to low first time pass rates.

Five major themes of interventional strategies that demonstrate positive outcomes on NCLEX® success were evident throughout the literature search: (a) use of nationally recognized standardized testing; (b) use of a review course format; (c) anxiety control; (d) remediation; (e) faculty mentoring.

KLIC is a hybrid pedagogy of synchronous and asynchronous learning centralized into the electronic management learning system of the university. Components of KLIC include web links to the NCLEX® prep resources available through the integrated product, NCSBN, and the Virginia State Board of Nursing.

KLIC was implemented with all students graduating in the spring, 2013. Seven at risk students who were either OOS or ESL were invited to participate in an individual study progress analysis. Five of the seven students, 71.42% in this pilot process, were successful in passing NCLEX® on the first attempt. The overall class first time success rate was 91.38% for this 2013 cohort of students.

At risk students were further expanded with the Fall, 2013 cohort to include students who achieved < 55<sup>th</sup> percentile on the Assessment test. While focus on at risk students was a priority, all students in each cohort were provided access to individual faculty support and guidance. Cumulative pass rates reflect a 95% success for all first time test-takers from the authors' institution. Although the 5% who failed were identified as at risk, this only represents 8.3% of the total at risk population.

Since KLIC was introduced, graduates have achieved a sustained pass rate 5.41%-11.5% greater than the national BSN average for four consecutive years. This preparation process incorporates the tools for students to provide concurrent review of the entire curriculum content and integrated threads. The benchmark for NCLEX® pass rates established by the Program, Quality and Evaluation committee of the School of Nursing have been met consistently after the implementation of KLIC.

More study is warranted with cohorts of varying demographics and needs. Collaboration with other schools of nursing to replicate and validate this process has been initiated to provide greater evidence of its effectiveness with a less homogenous group of students.

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## I 09 - Technology Use in NCLEX® Success

### Effectiveness of an Adaptive Quizzing System to Improve Nursing Students' Learning

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#### Abstract

Background: Nursing school graduates must pass the NCLEX-RN before they become a practicing nurse and NCLEX-RN pass rates have emerged an indicator of program quality for state boards of nursing and the nursing schools' community of interest (Holstein, Zangrilli, & Taha, 2006). The first time pass rate score of nursing programs are important to both students and nursing programs. If students are not successful on the NCLEX-RN they are unable to pursue their chosen career resulting in loss of income and potential impact on self-esteem (Frith, Sewell, & Clark, 2006). For nursing programs, low NCLEX pass rates have an adverse effect on enrollment, accreditation, funding, and faculty recruitment and retention. Strategies for increasing NCLEX-RN pass rates range from modifying admission criteria, altering the number of times students can retake courses once in the program, and implementing remediation and progression policies. End of Program - High stakes testing uses a signal assessment/testing score as a means determining a student's readiness for the NCLEX-RN Exam and may be used to prevent a student from graduating (Spurlock, 2006[EC1]). The implementation of high stakes testing has not been shown to be effective in improving education program quality and could hinder the ability to address the actual causes of low NCLEX-RN pass rate (Spurlock, 2013).

The National League of Nursing's Presidential Task Force on High stakes testing developed the Fair Testing Guidelines for Nursing Education in order to examine the use of testing as a graduation requirement in nursing programs. These guidelines note the importance of evaluation methods to support student learning and to improve and evaluate teaching and program effectiveness (NLN, 2012). Moselbee and Benton (2016) encourage the move from high stakes testing to comprehensive competency, which supports improvements to both nursing curriculum and faculty development in an effort to reduce the stress of high stakes testing among nursing students and produce positive student outcomes (diagnostic standardized exam scores, NCLEX first time pass rates, student retention, and student satisfaction).

Purpose: The current study focused on the implementation of a strategy which combines ongoing learning and remediation in a more personalized approach to out-of-class studying involving digital learning materials. Basic online assessment tools have been used and studied with an eye to determining how they can best be utilized in out-of-class environments. Online quizzing systems are a way of efficiently providing the potential benefits of in class formative assessment, but in an easier to administer and monitor environment.

Method: In this study, we explored the impact of the implementation of an adaptive quizzing system (AQS) during the final semester of a BSN program on nursing students' performance. The AQS provide students an environment in which they can effectively and efficiently practice and learn nursing skills and concepts over time as well as to prepare for exams (like the NCLEX). It allows students to practice and learn in a low-stakes, authentic environment to help prepare for higher-stakes exams (e.g., NCLEX-RN). This type of practice can also be invaluable to populations such as EL (English learner) or LEP (limited English proficient) students as well as those requiring extra support in content mastery and test-taking strategies.

The project was a retrospective study conducted at a baccalaureate school of nursing in the southeast United States. The study implemented a retrospective descriptive and correlational design to explore the relationship between usage and mastery measured in the AQS, course outcome data, standardized testing (ATI) scores, and NCLEX outcomes. Retrospective data were collected from 36 senior-level nursing students.

Results: Students answered an average of 574 quiz questions and had an overall average quizzing mastery level of 3.48 (max = 8). Students took an average of 5.94 practice exams and had an overall exam mastery level of 6.62. There was a strong, positive correlation between the number of AQS questions a student answered and overall mastery level. Thus, we see as students answer more questions, their mastery of the course material increases accordingly. All students in the group passed the NCLEX-RN (on the first or second attempt). In the most recent two prior years before the AQS was implemented, the NCLEX-RN pass rates at the study school were 73.91% (2014) and 88.06% (2015). The 2016 study cohort had a 100% pass rate (88.9% passed on their first attempt).

Surveys: Students were given the opportunity to complete three online surveys. Of the 36 eligible students 25 responded to Survey 1, 21 to Survey 2, and 20 to Survey 3. Twenty students responded to all three survey measures (a 55.5% response rate).

Survey 1: The first set of questions asked students to respond to statements about their motivations and study habits. The most important motivations for students were improving skills and understanding course work. Most highly rated goals were to learn and master new skills. Less important to students were items relating to comparisons to other students. The second set of questions focused on learning and study practices and attitudes. The most highly ranked item in the set was related to students finding relationships between what they are learning and already know ( $M = 4.28$ ). Several items related to difficulties students may have studying. The third set of questions focused on study habits in general. The most highly ranked general study habits chosen by students to be most true of them, were when studying they tried to determine which concepts they did not understand well ( $M = 3.96$ ), and they tried to relate new material to what they already knew ( $M = 3.96$ ). The lowest ranked study habits relate to the underlying concept of retrieval practice. Students were less likely to study by writing summaries of the main ideas they had learned, or making up questions to focus reading.

Survey 2: Students provided survey-feedback on their usage and opinions on the AQS. Of the 21/36 students who responded, the majority indicated that use of the AQS improved their performance in the course. The majority of students also indicated that the AQS was helpful in preparing for exams, getting feedback on strengths and weaknesses, increased knowledge of course concepts as well as preparing for the NCLEX.

Survey 3: This survey asked students to report on their NCLEX experience and was verified with data obtained by the school. Twenty students responded to the third student survey. Summary results are presented below. Students reported taking the NCLEX between May 25<sup>th</sup> and June 14<sup>th</sup>, 2016. Eighteen students (90%) reported passing the NCLEX and two students reported not-passing. Students reported answering an average of 123.95 NCLEX questions ( $SD = 75.29$ ) with a range from 75-265. Nine students reported answering 75 questions and four students reported answering 265.

Conclusion: The findings of this descriptive retrospective analyses were consistent with the findings from another baccalaureate nursing program also located in Southeast Texas. Both studies support the utilization of adaptive quizzing as a learning strategy for nursing students both during and after nursing school and indicate that as students actively study and learn in the system, their mastery of course content increases. Data from the AQS provide information and insight was beneficial to all stakeholders. The AQS provide students an environment in which they can effectively and efficiently practice and learn nursing skills and concepts over time as well as to prepare for exams (like the NCLEX). It allows students to practice and learn in a low-stakes, authentic environment to help prepare for higher-stakes exams (e.g., NCLEX-RN). The AQS is an effective powerful tool for formative assessment and remediation, providing instructors with meaningful data that reveals student misconceptions and areas of weakness. This provides invaluable time for faculty to evaluate both the learners' understanding of content, critical thinking skills, and test taking ability.

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## I 10 - Transition to Practice

### An Educational Intervention to Enhance Nurse Practitioner Role Transition in the First Year of Practice

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#### Abstract

Role transition is a natural process that occurs when the registered nurse (RN) pursues additional education and training in preparation to become a nurse practitioner (NP). This role transition is complex with multiple yet distinct phases, beginning with entrance into the educational program and continuing as long as two years' post-graduation (Brown & Olshansky, 1997; Cusson & Viggiano, 2002; Heitz, Steiner, & Burman, 2004). The journey of practicing from the "side of the bed to the head of the bed" (Cusson & Viggiano, 2002, p. 21) generates anxiety, insecurity, and increased stress in the graduate, ultimately causing role confusion and disruption in role identity, thereby leading to a longer adjustment period. Graduate NPs feel an unreasonably high expectation to be clinically competent immediately after graduation in order to have "mastered" the new role of the practicing NP (Cusson & Viggiano, 2002). Moreover, graduate NPs tend to blame themselves for experiencing these emotions and internalize these feelings, further exacerbating the sense of isolation and incompetence (Hill & Sawatzky, 2011). A compounding factor is the employer and new NPs expectation that they "hit the ground running" (Brown & Olshansky, 1997). This pressure combined with insufficient opportunities during the NP program for socialization results in graduate NPs feeling like "imposters" (Hill & Sawatzky, 2011).

There are a few qualitative and cross-sectional studies that have investigated strategies to facilitate the role transition of NP graduates. Nonetheless, current findings support formal orientation programs, informal and formal mentoring, as well as professional networking and socialization activities as positive influences on NP role transition (Bahouth & Esposito-Herr, 2009; Barnes, 2015; Cusson & Strange, 2008; Duke, 2010; Fleming & Carberry, 2011; Hart & Macnee, 2007). To date, there are no published quantitative studies that evaluate outcomes of role transition programs on graduate NP transition to practice. There is a gap in knowledge regarding strategies to support professional NP role transition during this critical time period. Therefore, purpose of this study is to investigate whether an evidence-based role transition webinar provided to graduate NPs would result in improved integration into practice.

The study design is a non-randomized, pretest-posttest, single-group study utilizing a convenience sample. The target population consists of nurse practitioners within the first year of practice willing to participate in the study. The Nurse Practitioner Role Transition Survey (NPRTS) was used to measure the role transition of the study participants. The NPRTS is a 16-item survey with a 5-point Likert scale consisting of three components: Developing Comfort and Building Competence, Understanding of the Role by Others, and Collegial Support. The response options are: (1) Strongly disagree, (2) Disagree, (3) Neither disagree or agree, (4) Agree, and (5) Strongly agree. The potential range of scores is 16 to 80, with higher scores equating to a more successful transition. The content reliability and validity for measuring NP role transition with the 16-item NPRTS of this study population was 0.77 using Cronbach's alpha internal consistency.

The intervention was a recorded evidence-based webinar on NP role transition components across the spectrum, with Brown and Olshansky (1998) *Limbo to Legitimacy* serving as the theoretical foundation. The webinar is divided into four sections that mirror the NP role transitional phases identified in this model. The webinar provides education on the issues known to impact role transition within the first year of practice including nurse practitioner transitional phases, the regulatory issues of licensure, certification, prescriptive authority; role conflict resolution strategies; organizational components of practice such as privileges, practice agreements, and credentialing; as well as business management concepts like billing and coding.

Participants were recruited through email invitation utilizing the Coalition of Advanced Practice Nurses of Indiana (CAPNI) membership list-serve and Nurse Practitioner program directors for the state of Indiana and the surrounding Midwest. Participants engaged in the webinar one to three weeks after the pre-survey and two to three months before taking the post-survey.

A total of 30 participants completed all components of the study. The mean pre-survey score was 54.72 at a 95% confidence interval with a standard deviation of 6.7, a slightly negative skew, and positive kurtosis indicating a slightly above average degree of confidence in NP role transition prior to participation in the educational intervention. The study participants were exclusively female (100%), 90% white, with 75% being in the age range of 31-59. Only 7.5% of participants graduated within three months of participation, (45%) graduated 4-6 months prior to participation, and 15% graduated within 7-9 months. Over 60% had 6-15 years RN experience before entering their NP program. The highest program participation was from Indiana University Purdue University of Indianapolis (25%), followed by Indiana Wesleyan (15%), and Indiana State University (7.5%). Over 25% of participants were from NP programs in Ohio and Illinois.

The lowest mean scores for participants were in the areas of NP program preparation (=3.10/5), understanding of the NP role by the public (=2.73/5), and ease of transition from nurse to NP (=3.06/5). The highest mean scores were being treated as a professional by colleagues (=4.32/5), understanding of the NP role with nurse colleagues (=3.90/5), and having the skills to deal with NP role transition (=3.70/5). There was no statistically significant difference observed regarding years practicing as RN ( $P=0.731$ ), time from program completion ( $p=0.145$ ), or NP program ( $p=0.888$ ), and NPRTS scores.

There was a positive association seen between age range of the participant and higher NPRTS scores in the post-test ( $p < 0.000$ ). This is the first study to demonstrate that there are possibly age-related differences in NP role transition, indicating perhaps more life experience equates to improved coping skills and in general enhances NP role adjustment.

The educational webinar was shown to have a statistically significantly positive influence on the participant's reported perceptions of NP role transition as it relates to confidence (item 6) ( $P < 0.019$ ) and smooth transition (item 7) ( $p < 0.026$ ), but not on the NPRTS comparison scores as a whole (pre-survey  $u = 54.7/80$ , post-survey  $u = 54.0667$ ,  $P = 0.616$ ).

Several indicators showed improvement in mean scores after completion of the webinar including comfort level with patients, skills to deal with role transition, and the requirement of less time for responsibilities. Improvements in these factors have important practical applications to NP practice since facilitators of NP role transition can lead to shorter and possibly less complicated adjustment period. And although it is unknown if the improvement is directly associated with the educational intervention, it is encouraging nonetheless and warrants further investigation to understand the significance fully.

The most problematic barrier identified with this study is the timing of the study implementation to the time of NP graduation. Due to the study implementation being in the fall, almost half of the study participants (47.5%) had graduated the previous December, or more than nine months prior to the study launch. Another 45% graduated 4-6 months preceding the study in May. Unfortunately, 7.5% of the study participants graduated within three months of program implementation when the webinar content would have been most applicable. As a result, over half of the study participants were outside of this ideal window of opportunity and may not have benefited as much from participation.

In conclusion, it has been recognized that NP students devote most of their energy during their NP program to the clinical aspects of NP practice, leaving little time for professional NP role development (Hamric & Hanson, 2003). This phenomenon contributes to a slower and more difficult NP role transition (Duke, 2010; Hart & Macnee, 2007; Latham & Fahey, 2006). Having practical and assessable educational interventions to optimize NP role transition can result in positive affirmation of the NP role and should help to solidify NPs contributions to healthcare to consumers and other healthcare providers. Determining the factors that contribute to the success of NP role transition, including optimal timing would be prudent. Therefore, steps need to be taken to facilitate successful transition so that graduates can transform into effective providers as soon as possible.

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## I 10 - Transition to Practice

### Minimizing Transition Shock: Preparing Graduates for the Real World

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#### Abstract

The preparation for, and integration of professional graduates into the dynamic climate of the contemporary workplace today continues to challenge institutions of higher education and employers as well as administrators and labour policy makers across North America. The education of our contemporary workforce is a dynamic process that seeks to balance advanced professional concepts and ideals with work-role realities. The unavoidable space that exists between the educational ideal and the practice reality can be alarming and exhausting for the new graduate. The author (Duchscher, 2007) presents her model of **Transition Shock** © in which changing roles, relationships, responsibilities, and knowledge become critical catalysts in the development of a new graduates' evolving professional identity during the initial 12 months of their practice. Two critical issues that feed into the experience of transition shock will be emphasized. Firstly, professional nursing practice is NOT as simple as the application of theory to 'text book' clinical events. Rather, the development of proficient practice habits results from: 1) the subtle integration of theory into varied practice experiences, 2) the maturation of one's political, economic, organizational, cultural and socio-developmental insight, 3) the know-how that comes with collaboratively consulting with other nurses and healthcare professionals during the course of a day, and 4) the expertise that settles in as one both observes and participates in practice over time. Secondly, the transition shock experience is not an isolated *professional* experience. The response to a major change like the initial integration into a professional role affects the whole of the nurse: it is intellectual, physical, social, cultural, developmental, spiritual, emotional, and economic. While it is commonly accepted that there will be an adjustment when making a significant change in one's life such as the initial integration into professional practice, what is often underestimated is the degree of pervasiveness of this experience. Duchscher brings over 16 years of research, innovation and direct experience in the area of new graduate professional role transition. With over 80 international presentations to multiple disciplines and 10 years as the CEO of a large Canadian non-profit organization that has served to support, sustain and develop leadership capacity in new professional nursing graduates, the author offers insights for educators on how to prepare professionals in a way that minimizes the stress they experience as they navigate this new context, while maximizing their early career clinical and professional contributions. Optimizing a smooth professional role transition for our graduates not only maximizes their effectiveness as representatives of a professional discipline, but offers them to our communities as ambassadors of higher education and champions of social responsibility within the work world.

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## I 11 - Professional Career Development

### The Transition From Military Nurse to Nurse Faculty

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#### Abstract

**Background:** There is a global shortage of qualified nurse faculty which is expected to worsen as faculty age and retire. Analysis of data collected from The American Association of Colleges of Nursing (AACN) Annual Survey of Baccalaureate and Graduate Programs in Nursing (2006-2015) indicates that nearly one third of all nurse faculty are projected to retire within the next 10 years (Fang & Kesten, 2017).

In academic year 2015-2016, the AACN reported that there are 1,328 vacant full-time nurse faculty positions comprising 7% of total budgeted full-time positions nationally (AACN, 2016). The sequela of this shortage resulted in 68,938 qualified applicants being denied admission into nursing programs for reasons including the faculty shortage (AACN, 2015). Despite ongoing efforts to recruit and retain faculty to fill these vacancies, experts caution that nursing schools must prepare for faculty departure (Fang & Kesten, 2017).

Recruitment of retiring or separating military nurses is a viable solution to this problem. Collectively, military nurses are a uniquely qualified and diverse pool of professional nurses from which to recruit for faculty positions. Lake, Allen, and Armstrong (2016) have argued that these nurses have a sustained work ethic and skill set which makes them strong candidates for nurse faculty positions.

**Literature Review:** The transition from clinical practice to academia is often described as challenging. The motivation to teach often stems from a desire to share knowledge and experience to positively influence future nurses. The work-role transition from clinical practice to academia requires nurses to learn new norms and values and in doing so form a new educator identity (Duffy, 2013). Yet, feelings of stress and fear are often reported in the period between shedding the clinician identity and constructing the new educator identity (Weidman, 2013). A meta-synthesis by Murray, Stanley, and Wright (2014) revealed that this shift in identity is a universal theme across qualitative studies investigating clinical to academic transitions.

Although previously considered clinical experts, a lack of experience and academic preparation in teaching results in a lack of appreciation of role responsibilities and feelings of unpreparedness for new nurse educators (McDermid, Peters, Daly, & Jackson, 2013). The complexity of the nurse educator role which includes expectations of teaching, advising, scholarship, and committee membership is surprising to new faculty (McDermid et al., 2013). Schoening's (2013) Nurse Educator Transition Model recognizes a state of disorientation created when new educators return to a novice position. Across studies, nurse educators acknowledge other sources of stress during transition. These include working to fit into the academic culture (Grassley & Lambe, 2015), not knowing what to expect (Weidman, 2013), a lack of guidance regarding teaching and evaluation practices (Weidman, 2013), role ambiguity (Cranford, 2013), decreased confidence in teaching abilities (Murray et al., 2014), workload (Cranford, 2013), and time management (McDermid et al., 2013).

Transitioning from military to civilian life can be complex as Veterans leave a culture, career, and social supports behind (Anderson & Goodman, 2014). While there are numerous studies investigating the role transition from clinical practice to academia, there are no published studies, which could be located, that investigated this same phenomenon from the military nurse perspective. The role transition for these nurses is not known nor what factors impact a successful or failed transition. Therefore, understanding the military nurse officers' transition experience from clinical practice in a military setting to nurse educator in a civilian environment may be valuable to schools of nursing and the students they will teach. Further, the results could inform efforts to recruit future military nurse officers into the educator role as a means of reducing the nurse faculty shortage.

**Aim:** The aim of this qualitative descriptive study was to describe the transition from military nurse to nurse faculty.

**Methods:** Purposeful and snowball sampling were employed to recruit nurse veterans who transitioned from military service into academia and who were employed in the faculty role in an accredited nursing program in the United States for at least one year. Thirteen individual, semi-structured interviews were conducted between August and October 2016. Content and thematic analysis yielded three themes and nine subthemes. Ten of the 13 total participants validated the findings.

**Results:** The participants in this study described the transition to the nurse faculty role as a challenging one. A general lack of understanding and a full appreciation of the nurse faculty role responsibilities contributed to feelings of frustration and stress.

The transition required an acknowledgement of the reality of the academic culture that differed significantly from the military culture. The participants had to overcome misperceptions of veterans and military service, learn to translate skills learned in the military into a language understood by civilian employers, acknowledge a change from a collectivist to individualist mentality, and appreciate differences in patterns of communication. As these differences became apparent the participants took active measures to bridge perceived gaps in knowledge and skills. The steep learning curve and learning to balance the demands of the role required participants to tap into leadership skills garnered during military service. The participants perceived these leadership skills to be instrumental to a successful transition. As the new faculty began to evolve in the faculty role and witness the fruit of their labor, a new academic identity formed.

**Conclusions:** Significant cultural and leadership differences between the military and academia created unforeseen challenges for the nurse veterans. Leadership skills, developed during military service, helped participants adjust to the nature of academia and were perceived as vital to a successful transition. Recognizing this transition and the strengths these nurses offer provides evidence for establishing collaborative relationships between schools of nursing and military organizations in addition to focused orientation programs to increase recruitment and retention of these nurse faculty.

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## I 11 - Professional Career Development

### Empowering the Nurse Entrepreneur in Business and Work/Life Balance

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#### Abstract

Nurse entrepreneurship is a growing trend in healthcare. Nurse entrepreneurs fill gaps in the current healthcare delivery system by supporting the development of targeted products and services, enhanced technology, software, and safety systems. As more nurses move beyond the bedside to explore entrepreneurship, it is important to identify best practices and the skill sets that are transferable from direct caregiving to business leadership. It is also important to learn about how nurses have shifted perspective to make the transition. The current state of healthcare in the United States and the climate of healthcare reform have led nurse entrepreneurs to focus on alternative models of care to provide patients and clients with a higher quality of life at more affordable prices and often with quicker access. Recent trends include steeply rising costs, changes in healthcare reimbursement, increased competition, an aging population, an increase in chronic illness, the advance and integration of technology, and increased population diversity (Guo, 2009). There has been a call to develop “creative, innovative, and entrepreneurial” approaches to fill the gaps in care to address these issues and others (Darbyshire, 2014, p. 9). Many of these trends have shifted our healthcare focus from an acute care model to one of prevention and detection. Historically, the structure of the healthcare system and academic and clinical training programs have in large part not supported the development of nurse leadership competencies necessary for success in entrepreneurship. Per the Institute of Medicine’s (IOM) Initiative on the Future of Nursing (2011), nurses are not generally provided with education or socialization related to administrative and leadership skills and roles in their academic programs. This IOM report suggests that nurses must not only access education to develop competencies outside of their clinical expertise, such as attending business classes, but that they must also shift their perspective on their professional roles. In the absence of formal education, training, or institutional support, nurse entrepreneurs typically have had to develop their own knowledge base and best practices. Additionally, although many nurses have turned to entrepreneurship as a vehicle to prevent burnout (Podlesni, 2013), financial demands often require nurse business owners to continue to hold part- or full-time organizational positions. At the same time, the unique challenges of the entrepreneurial context, such as having to fulfill multiple professional roles, may also present obstacles to maintaining self-care practices that would prevent burnout. Some research has suggested that control over one’s work is a mediator in the stress/self-employment relationship (Hessels, Reitveld & van der Zwan, 2016). This presentation will discuss results of an exploratory study that aimed to better understand the experiences and challenges of nurse entrepreneurs. Nurse entrepreneurs (n = 44) reported on their transitions from employment to entrepreneurship, key motivators in the decision to start a business, and the challenges they face as entrepreneurs in the healthcare field. Additionally, participants completed the 33-item Mindful Self-Care Scale – Short (Cook-Cottone & Guyker, 2016), which measured their self-care activities and behaviors in 6 domains: Physical Care, Supportive Relationships, Mindful Awareness, Self-Compassion and Purpose, Mindful Relaxation, and Supportive Structure. Nurse entrepreneurs reported higher rates of self-care practices than a normed community sample, and age was positively correlated with higher rates of self-care practices. Nurse entrepreneurs reported that factors related to psychological empowerment, such as meaning/purpose, having an impact, need for growth, and getting to make decisions, were more critical motivators in the decision to start a business than factors associated with structural empowerment, such as financial gain and job or organizational constraints. Some work/life balance challenges, such as juggling multiple roles in a business, balancing one’s own needs with those of others, time management, and addressing both family and business needs were associated with fewer self-care behaviors. Participants highlighted the need for business knowledge and the difficulty in accessing this knowledge. The biggest challenges to future success identified, such as implementing a marketing strategy, networking, and accessing mentorship, were all related to relying on connections with others. Implications of this study for nurse education and training will be discussed. Additionally, practice implications will be discussed, including benefits to nurse entrepreneurs, potential nurse entrepreneurs, and others in the healthcare delivery system.

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## Poster Presentations

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## PST1 - Poster Session 1

### Nursing Specialty and Primary Ambulatory Care Education

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#### Abstract

Current trends in healthcare delivery underscore the imperative to better prepare nurses for practice in a variety of ambulatory settings. Early hospital discharge, reduction in readmissions, and other healthcare transitions with inherent financial and logistical pressures suggest the need to prioritize ambulatory practice in nursing education (Fortier, et al., 2015). Nurses play a vital role in ambulatory care, actualizing initiatives to prevent readmission to hospitals and providing knowledge and skills to support the needs of an increasingly complex patient population, requiring wider range of procedures and treatments than ever before (Fortier, et al., 2015; Haas & Swan, 2014). As ambulatory settings have continued to grow over the past forty years, demand for nurses in these practice areas is increasingly evident (American Academy of Ambulatory Care Nursing, 2012). Wojnar and Whelan (2016) state in their synthesis of prelicensure education that previous research shows that “the role of registered nurses in a variety of community-based primary care settings will grow rapidly in the near future, contributing to the quality of care and improved population health,” which in turn, would save money for health systems (pg. 223).

Balancing growth in ambulatory settings are workforce constraints and limitations in education. Some ambulatory practices report having “difficulty recruiting registered nurses that possess adequate training in managing acute and chronic conditions in ambulatory care settings” when working to expand the registered nurse role in the primary care environment (Ladden, et al., 2013). Despite available positions in these settings, most nursing students learn clinical practice primarily in acute care settings rather than in ambulatory and community settings. Focusing largely on acute care practice limits both competence and career development for generalist nurses (Fortier, et al., 2015). Wojnar and Whelan (2016), note “it is unclear to what extent nursing schools” have moved to having a greater ambulatory and community emphasis within their curriculums (pg. 223). Workforce preparation and capacity lack alignment with healthcare delivery.

This survey methods study aimed primarily to describe perceived exposure to specialty, primary, and ambulatory care among current undergraduate nursing students in the United States. Describing the extent to which clinical placement affect where these students plan to work was the secondary aim. These student-focused aims are part of a larger project which also survey pre-licensure program directors about the extent to which their curricula include content on ambulatory and other community healthcare delivery settings. An investigator designed survey that included XX demographic questions and YY content questions was the only measure used. After receiving IRB approval, nursing students currently pursuing a baccalaureate or associate degree from accredited nursing schools in the United States were invited to participate. Recruitment strategies for contacting eligible participants includes personal contacts, nursing social media groups, the National Student Nurses Association (NSNA) listserv, and emails to the Deans and Program Directors of nursing schools found on the membership list on the National League for Nursing (NLN) website. Access to the survey was online through Qualtrics which was also used to store data securely and anonymously. Analysis included descriptive measures and evaluation of statistical significance using chi-square goodness of fit test and chi-square test for independence. A total of 811 nursing students across the country, representing 47 out of the 50 United States and the District of Columbia. Of those participating, 62.75% of students reported having greater than 30 clinical sessions in hospital settings. Only 0.9% of students reported no clinical sessions in the hospital. Conversely, 20 to 58% of students had no clinical sessions in other settings listed including ambulatory and primary care centers. With clinical sessions defined in this survey as approximately 6-8 hours in length, many students experienced over 240 hours of hospital practice while at the same time many are receiving no experience in other settings. Furthermore, 88.8% of students indicated an aim to work in a hospital setting after graduation with 82.5% of students prioritizing that setting as their first choice for work in five to ten years. When compared to the estimated 61% of nurses who work in inpatient acute care settings today, the difference is clinically significant ( $\chi^2= 261.78$ ;  $P<0.001$ ), representing dissonance between the realities of healthcare and nursing students’ expectations.

Across nursing programs these expectations varied somewhat with 95.2% of students from 4-year BSN programs want to work in a hospital setting after graduation as compared to 79.4% from 2-year ADN programs ( $\chi^2= 4.227$ ;  $P= 0.039$ ) and 71.1% from RN to BSN programs ( $\chi^2= 1.98$ ;  $P= 0.159$ ). Additionally, 4-year nursing programs have a higher percentage of students who have greater than 30 clinical sessions in the hospital. Of 4-year BSN nursing students, 69.8% have 30 or more clinical sessions in a hospital as compared to 2-year ADN with 54.8% and RN to BSN programs with 36.1% ( $\chi^2 9.87$ ;  $P= 0.007$ ). The number of hospital clinical sessions is related to nursing students expectations of future practice setting via a chi square test for independence, the two variables is significantly associated ( $\chi^2=13.855$ ,  $P<0.001$ ).

Clinical rotations and other educational experiences help shape nursing students’ clinical and critical thinking skills, professionalism, and perspectives on their careers. Our findings corroborate a small but growing body of literature that speaks to the demand for nursing students to be educated more broadly, understanding patient education, continuity of care, transitions in care, and chronic disease management as they extend well beyond the walls of the hospital. Additionally, our findings support the American Academy of Ambulatory Care Nursing’s stance on curriculum transformation. As Wojnar and Whelan (2016) assert “new curricula and practice models will be required from nursing schools and colleges across the nation to prepare future nurses to function in primary and/or ambulatory care practice and ultimately serve as change management and transitional care leaders.” Our findings thus inform future curriculum development and clinical placement design to ensure that the future nursing workforce is better prepared to improve the health of the populations they serve.

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## PST1 - Poster Session 1

### The Integration of Mobile Technology Through Microblogging and Apps Into Nursing Curricula

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#### Abstract

**Purpose:** This poster demonstrates the integration of mobile technologies into both undergraduate and graduate level nursing curricula.

**Background:** In the age of eHealth, nurse educators face increasing responsibility to integrate technology into their curricula. Clinicians are expected to be technologically savvy. Development of professional skills that promote the successful integration of technology into nursing care is essential. Technology is impacting nursing education and nursing schools must adapt their learning environments to ensure the use of mobile devices improves patient care (Doyle, Garrett & Currie, 2014). The term, "technology," encompasses a broad range of platforms and devices and requires a breadth of knowledge, skills and abilities to achieve proficiency. Mobile technology incorporates the use of handheld devices for applications and networked communication (O'Connor & Andrews, 2015). This technology is reshaping clinical education by enhancing knowledge and skills, improving decision making ability, and increasing productivity and confidence (O'Connor and Andrews, 2015).

The integration of such technology aligns with the evolving theoretical framework of networked participatory scholarship. Conceptualized by Veletsianos and Kimmons (2011), networked participatory scholarship is, "the emergent practice of scholars use of participatory technologies and online social networks to share, reflect upon, critique, improve, validate and further their scholarship" (p. 768). Networked scholarship meets Boyer's goal of broadening scholarship by fostering connection, collaboration and curations between people as opposed to institutions (Stewart, 2015).

**Description:** Microblogging focuses on the creation of concise nuggets of information. One of the most popular microblog platforms is the social media application, Twitter. Twitter microblogs, known as "Tweets", are limited to 140 characters and can be liked, retweeted and shared throughout one's network. Tweets can be categorized using hastags (#). Research demonstrates that integrating Twitter in the classroom can increase student participation/engagement, create a social presence in online courses, fosters in class and out of class discussions and develops writing skills (McArthur & Bostedo-Conway, 2012; Ferrenstein, 2010b; Harris, 2010; Dunlap & Lowenthal, 2009).

The use of apps (applications) has increased significantly in the clinical and non clinical environment. An app is software that is self contained that can run through a web browser. Using mobile technology, such as apps, to look up information at the bedside rather than leave the patient's room to find it was found to improve the quality of patient care and enhance patient safety (Johansson, Petersson & Nilsson, 2013; Koeniger-Donohue, 2008). Nursing students were found to have improved decision-making capacity and increased confidence while using mobile technology (O'Connor & Andrews, 2015).

**Methods:** The integration of mobile technology in the online graduate level curriculum is achieved through microblogging. Students create a dedicated Twitter account for the purpose of learning and interacting with faculty and fellow students. To mitigate risk, students sign a social media contract that outlines expectations of professional language and privacy protection. Microblogging assignments are threaded throughout the didactic coursework in the program allowing students to refine microblogging skills that support them in maintaining collegial peer relationships beyond the online classroom and to develop a professional social media presence.

The integration of iPad's™ into an undergraduate nursing curriculum opened the door to many uses of this mobile technology. Faculty research and select apps (applications) and for student use in specific courses; students download the required apps and gain familiarity with their contents/use during class time and through independent exploration. Students also bring their iPad's™ into the clinical environment to access tools to assist in caring for patients. They utilize different apps to access drug and disease information, develop concept maps in post clinical and to teach their patients about diseases and medications. Students build proficiency in patient education apps while patients are exposed to reliable resources to access upon discharge.

Students' use of microblogging and apps fosters networked learning and increases exposure to resources outside of their personal domains through experiential learning. The experience fosters the development of professional mobile technology skills that can later be transferred to their clinical practice.

**Educational Outcomes:** The integration of mobile technology into both curricula demonstrates initial success with student results ongoing. Both programs are using surveys to assess student learning. Concepts being measured include social scholarship, ability to produce ehealth information for public consumption and the ability to connect with colleagues and patients outside of traditional settings.

**Discussion:** This discussion demonstrates the successful integration of mobile technologies into both undergraduate and graduate nursing curricula. Measuring learning outcomes associated with the use of mobile technologies is challenging. The growing field of social analytics may prove beneficial in overcoming this challenge. Barriers to full integration of mobile technologies into curricula include limited faculty fluency in technology skills and the rapid evolution of such technologies. This requires continuous reexamination of best practice by teaching faculty.

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## PST1 - Poster Session 1

### Exploring Associate Degree Nursing Faculty's Experiences Teaching Electronic Health Record Systems Use via Qualitative Survey

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#### Abstract

The dramatic proliferation and integration of electronic health record systems (EHRs) influence nursing practice. The *Future of Nursing* (Institute of Medicine (IOM), 2010, 2011) reports are just one indicator of the transformation occurring in healthcare and its impact on nursing education. Nurse educators are entreated to prepare students who can successfully practice in this technologically-rich, information laden environment (American Association of Colleges of Nursing, 2008; National League for Nursing, 2008, 2015).

The Institute of Medicine reports define EHRs as "An EHR system encompasses (1) longitudinal collection of electronic health information for and about persons, (2) electronic access to person- and population-level information by authorized users, (3) provision of knowledge and decision support systems, and (4) support for efficient processes for health care delivery (IOM, 2004, p. 4)." As multipurpose tools in health care that vary across a spectrum of functionalities, EHRs require a spectrum of user skills (Technology Informatics Guiding Education Reform (TIGER), 2009). Effective utilization of EHRs is one component of the essential competencies identified for nursing practice (Barnsteiner et al., 2013; Healthcare Information and Management Systems Society, 2016; Lyle-Edrosolo & Waxman, 2016).

Several studies from the literature show that nursing faculty face many challenges, including the lack of sufficient education or experience, to teach EHRs use and broader informatics concepts (De Gagne, Bisanar, Makowski, & Neumann, 2012; Hunter, McGonigle, & Hebda, 2013; IOM, 2011). Little is known about nurse educators' current preparedness to educate students about EHRs use.

This study utilized a qualitative survey to gain understanding of Associate Degree nursing faculty's experiences, perspectives, challenges and strategies related to teaching students to use EHRs. A convenience sample of Associate Degree nursing faculty who teach EHRs use was solicited from a Council of Associated Degree Nursing in New York State membership meeting and faculty development conference. Survey and qualitative interviews were completed. This presentation reports the survey results. The nine item qualitative survey, developed from the literature, was completed by 25 educators. Surveys were analyzed using content analysis in an iterative approach.

Preliminary survey results show common themes in Associate Degree nursing faculty's experiences related to teaching EHRs use. Facilitators and strategies included: Teaching is facilitated by the computer literacy of students and faculty, consistent use of EHRs, and availability of a 'user-friendly' academic version of an EHRs. Skill development for EHRs focused primarily on practical skills (such as navigation, finding patient information, and basic nursing documentation). Simulation offers opportunities to integrate teaching EHRs use. Challenges included: Associate Degree nursing faculty are challenged by limited academic resources, time and access constraints, lack of uniformity of EHRs vendor products, adequate training, and confidence in their ability to teach EHRs use. There is inconsistent use of EHRs across the curricula and variations in use across settings such as classroom, laboratory, simulation, and clinical learning environments. Emergent themes offer teaching strategies, highlight some of the challenges that faculty face, and identify areas where education, faculty development, and resources may be beneficial to facilitate Associate Degree nursing faculty's ability to teach EHRs use.

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## PST1 - Poster Session 1

### An Interprofessional Initiative to Increase SBIRT Competencies in the Health Sciences

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#### Abstract

The purpose of this presentation is to describe the nursing arm of an initiative to increase healthcare provider competence and confidence in identification and management of substance use disorders by integrating an evidence-based Screening, Brief Intervention, Referral to Treatment (SBIRT) curriculum into health professions training programs at a large Southeastern university. Trainees included graduate nursing, social work, and rehabilitation counseling students and medical residents. The training was supported by a 3-year Substance Abuse and Mental Health Services Administration completed in 2016. The success of the initiative led to additional funding which has allowed the training to continue. These training efforts are consistent with global and national objectives to reduce the social and health burdens associated with harmful levels of alcohol consumption and drug abuse.

Drug and alcohol abuse is a pervasive public health problem with multiple adverse medical, legal and psychosocial consequences. Across the globe, an estimated 16% of drinkers age 15 and older engage in heavy episodic alcohol use and nearly 6% of all deaths are related to alcohol consumption (World Health Organization [WHO], 2014). Alcohol is noted to be a component cause of more than 200 ICD-10 disease and injury coded conditions (WHO, 2014). In the United States, excessive alcohol use was responsible for approximately 1 in 10 deaths of adults aged 20-64 years between 2006-2010 (Stahre, Roeber, Kanny, Brewer, & Zhang, 2014), including 31% of driving fatalities (US Department of Transportation, 2017). An estimated 1 in 6 adults binge drinks at least 4 times per month (Kanny, Liu, Brewer, & Lu, 2013). Although most are not alcohol dependent, misuse of alcohol has numerous immediate and long-term health risks, including eventual dependence. The economic costs of excessive alcohol use in the United States exceeded \$249 million in one year alone (Sacks, Gonzales, Bouchery, Tomedi, & Brewer, 2015). Use of legal and illegal drugs adds to the global burden of substance abuse. Worldwide, approximately 5% of individuals aged 15-64 years engage in illicit drug use (United Nations Office on Drugs and Crime, 2017). In the United States, opioid-related fatalities are growing at alarming rates, with a reported 33,000 deaths in 2015 (Centers for Disease Control, 2017). Nearly half of these involved the misuse of prescription drugs.

Early identification and management of individuals at risk for substance-related problems, with referral to specialty treatment services when necessary, improve health outcomes and use of available resources. Unfortunately, only 1 in 6 individuals report speaking with a healthcare provider about their substance use (Centers for Disease Control, 2014). Because most health professional training provides minimal instruction in assessment and treatment of substance use disorders, few providers enter practice prepared to address this need. Universal screening in SBIRT allows providers to assess levels of risk among individuals who report substance use and respond accordingly with reinforcement, education, brief focused awareness-raising conversations to elicit change, or referral to higher levels of care, if appropriate.

To increase student and resident readiness to provide comprehensive patient care, faculty in nursing, medicine, social work, and rehabilitation counseling collaborated to customize the evidence-based SAMHSA SBIRT curriculum for implementation into their respective programs. Training was conducted using 6 online modules that included multimedia didactic instruction on substance use, motivational interviewing techniques, the SBIRT model, skills demonstration vignettes, and resources such as screening tools and patient teaching aids. After working through the modules at their own pace, students demonstrated competency through a standardized role play with faculty. Knowledge about substance use and intervention, confidence in screen for and manage substance use, and attitudes about substance abuse intervention were assessed before and after SBIRT training.

For nursing, SBIRT training was incorporated as an assignment into the advanced health assessment course required for nurse practitioner (NP) students. This strategy allowed faculty to access students within all of the specialty programs and provided students with a tool that they could utilize in their upcoming clinical courses. Because the didactic portions of the NP courses are delivered online, it was not feasible to require students to come to campus for skills demonstrations; therefore, students had the option to meet with faculty face-to-face or virtually. The completed grant supported the training of 251 NP students, and the current grant is projected to reach a similar number. About one-third of the nursing cohort reported little or no training or experience working with patients with alcohol and drug problems. After completion of the curriculum, knowledge scores increased from 76% (pre) to 95% (post). Confidence improved in ability to screen for alcohol and drug problems, in ability to discuss substance use, and in ability to assess readiness for change. Students experienced an increase in perceptions of understanding of substance abuse, and decreases in perceptions that addressing substance use issues was too time consuming or might be poorly received by patients. All changes were significant at  $p=.001$  level, except for attitudes related to time constraints ( $p=.05$ ). There were no differences noted in outcomes between students who performed skills demonstrations virtually compared to those who completed face-to-face demonstrations. Nurse practitioner students achieved the highest overall post-training knowledge scores, and confidence and attitudes outcomes were comparable to those of other disciplines. Satisfaction surveys revealed that students found the content easy to understand and relevant to their clinical experiences and future practice. Anecdotally, many students noted that motivational interviewing techniques were similarly applicable to practice when other lifestyle modifications were indicated.

This interprofessional initiative has proved to be an effective model in the academic arena. Next steps for nursing include engaging additional faculty/preceptors to ensure curriculum sustainability and provide ongoing support for SBIRT skills development throughout clinical rotations. Additionally, students will be followed at select points during the remainder of their program of study to assess whether SBIRT skills have been successfully implemented in their interactions with patients in their clinical settings.

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## PST1 - Poster Session 1

### Tele-Education as a Support Tool in Mental Health, Education, and Nursing

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#### Abstract

**Introduction:** Since the emergence of the Internet, the speed of information flow has increased considerably on a global scale, and both economic and interpersonal relations have been constantly undergoing reformulations and changes, no longer being seen only as a face-to-face relationship. Thus, social networks over the internet have become the largest vehicle of communication between individuals, since the beginning of the XXI century. [1] Social networks can also be seen as a means of non-formal education, as they contribute to teaching and learning. This is the context in which distance education in health operates, contributing to building a collaborative network of communication and establishing links between participants and exchanges of experience based on the reality of each individual. Concurrent with the increased use of social networking over the internet, the number of people using psychoactive drugs has also increased throughout society and in all social classes. This increase in consumption can be evidenced by the frequency with which we can observe the large number of users on the streets of Brazil. In 2010, the Census conducted by the Brazilian Institute of Geography and Statistics (IBGE) pointed out that 1.2% (2.3 million) of Brazil's population uses or may have already used crack cocaine. Dependence on psychoactive substances is considered a chronic disease because it often stays with these individuals for life. Faced with these facts, this study aimed to evaluate the use of distance education as a support tool in combating the use of psychoactive drugs.

**Methods:** This is a descriptive literature survey, in which it was decided to search for articles in national and international journals from 2000 to 2014, available in the PubMed® database. The following MeSH terms were used: "Telehealth;" "Drug addiction;" "Social Networks." We selected all articles published in Portuguese and English involving the drug user population, and data collection was carried out through social networks over the internet or by phone. Literature review articles were excluded.

**Data analysis and results:** The analysis was performed according to year of publication, type of research, data collection instrument used and expected results. Eight articles on the use of social networks as a support tool in combating the abuse of psychoactive drugs were found. Of these, six were selected which fit the criteria. **Results:** The results showed that the first publications on the subject occurred in the United States starting in 2006. It was observed that none of the articles used data collection based on social networks over the internet, such as through Facebook®. No research performed on the topic in Brazil was found. Regarding the type of drug, three articles (50%) talked about alcohol abuse, two (33.3%) about tobacco use, and one (16.7%) about opioid use.

In 83.3% of the articles surveyed, five articles used the phone as a data collection mechanism and only one (16.7%) was based on data collection via internet (e-mail).

In the studies analyzed, we can see that in none of the items surveyed were online social networks used as a data collection mechanism, and intervention by phone brought improved treatment for most patients with alcohol dependence. Only in one of the articles was there no specific positive effect identified from intervention via social networks. In articles related to tobacco use, the intervention was successful for a 24-week period on average. Meanwhile, the intervention with opioid users showed positive results when followed by medication.

**Conclusion:** Our findings suggest that distance education can be a powerful mechanism to support reduction or cessation of use of psychoactive drugs, especially if used in conjunction with conventional therapy. Due to the internet becoming the biggest vehicle currently available for information dissemination, this favors social networks (via the internet) establishing themselves as a powerful means of dissemination, and being used as mechanisms of distance education in health, to contribute to reducing psychoactive drug abuse and enhancing individual well-being.

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## PST1 - Poster Session 1

### Comparison of Face-to-Face and Distance Education Modalities in Delivering Therapeutic Crisis Management Skills Content

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#### Abstract

**Purpose:** The purpose of this study was to compare effectiveness and student satisfaction of distance education versus face-to-face interaction in delivering therapeutic crisis management skills content to Associate Degree Nursing (ADN) Students as measured by test scores, overall grade point average (GPA), class grade, and student satisfaction survey results. One group of students was taught via face-to-face interaction in the traditional classroom setting with case studies and group work. The other group of students was taught via distance education with the same instructor presentation followed by the same case studies and distance education group work. This researcher believed that test scores would be higher in the distance education setting because the students would have to take the time to read and respond to discussion board questions. Personal experience led to this hypothesis because students have verbalized in the past that they enjoy a distance education environment where students can set the pace. No difference between the two separate groups or enhanced performance by those who receive instruction through distance education could indicate that distance education is an effective teaching modality for therapeutic crisis management.

**Methods:** The study was a quasi-experimental, post-hoc causal comparative, two group post-test only design. There were two conditions: face-to-face classroom delivery of course content and distance education with online course content. The study was designed to compare effectiveness of distance education and face-to-face interaction through reviewing test grades, overall GPA, and class grades. Additionally students were asked to rate their satisfaction of the different modalities.

Institutional Review Board approval was received from two agencies involved in the research study. Participation for the study was voluntary. Students' agreement to participate in the study was obtained through volunteer signatures. Consent was obtained from all volunteers prior to the study through the Student Consent Form. Students who had completed the third semester psychiatric mental-health nursing course were invited to participate in the survey. Students were not asked to complete the survey until they had completed all work associated with the course.

Test score data was collected from test questions related specifically to the therapeutic crisis management content. Test questions were part of a larger exam. Test questions were validated with data analysis including Point Biserial and content validity. Question analysis was gathered from ParScore®, a test analysis computer software program. Content validity was established through the use of questions on previous tests during previous years with data from previous statistical analyses. Overall GPA and class grades were gathered from student records. Surveys of student satisfaction were developed by the researcher, peer reviewed by two faculty members and were piloted with a cohort of 65 students. No formal validity measure (Cronbach alpha) have been reported for prior uses of these measures.

An independent samples t-test was employed to identify therapeutic crisis management test performance differences between students in face-to-face interaction and distance education sections. A t-test was also performed to assess differences in test grades, course grades and GPAs of students who were in their preferred setting and those who were not. Type I errors were controlled for by using SPSS software.

A quantitative analysis regarding satisfaction was performed with a series of questions on a researcher-developed survey. For categorical responses on the questionnaire, such as age, gender, ethnicity, learning styles, and satisfaction counts and percentages are presented. All tests were conducted at a significance level of 0.05. The primary hypothesis was to investigate differences between test scores, overall GPA, and class grade of students who were taught therapeutic crisis management techniques via face-to-face interaction and those who were taught through a distance education format.

**Results:** There were 110 participants who were eligible and agreed to participate in the study. There were 63 participants in the distance education group and 47 participants in the face-to-face interaction group. The majority of participants were 18 to 29 years of age (59.1%, n=65), female (84.5%, n=93), and Caucasian (79.1%, n=87). The age distribution of the remainder of the participants was as follows; 23.6% (n=126) categorized themselves as between the ages of 30 to 39, 17.3% (n=19) categorized themselves as between the ages of 40-59. There were 15.5% (n=17) male participants. The ethnicity of the other participants was 9.1% (n= 10) African American, 5.5% (n=6) Hispanic, 2.7% (n=3) Asian, and 3.6% (n=4) classified themselves as Other Ethnicity. The majority of the participants, 42.7%, (n=47) categorized themselves as visual and auditory learners, 32.7% (n=36) categorized themselves as tactile and visual learners, 24.5% (n=27) categorized themselves as other style learners.

The first research hypothesis was to investigate if there were differences between test scores, overall GPA, and class grades of students who were taught therapeutic crisis management techniques via face-to-face interaction and those who were taught through a distance education format. A series of Independent Samples t-tests, with an alpha .05, were performed to assess the mean difference between the section of the course as the dependent variable and test grade, overall GPA, and class grade as the independent variables. Data were characterized for their distributional characteristics using descriptive and graphical methods where they were tested for equal variance and passed. Where the assumptions for the t-test were not met data was transformed to reduce skewness and number of outliers, and improve the normality and linearity of any residuals. Analysis was performed using SPSS.

The mean test grade was 82.1 out of 100, SD=5.88 for the distance education group and 82.8, SD=5.20 for the face-to-face interaction group. No statistically significant difference was noted between test grades (t58=.704; DF=108, p=.483). The overall mean GPA for the distance education group was 3.1 compared to 3.0 for the face-to face interaction group. This difference also was not statistically significant (t58=.765; DF=108, p=.446). The mean class grade was 82.4, SD=4.23 for the distance education group and 82.8, SD=4.34 for the face-to-face interaction group. This difference in class grades was not statistically significant (t58=.429; DF=108, p=.668).

The second research question was to investigate if there were differences in nursing student satisfaction between distance education and face-to-face interaction when learning therapeutic crisis management techniques. The same methods listed above were used to assess the distributional characteristics for each of the variables of interest. The satisfaction scores were taken from a Likert scale with twenty-eight total points possible. A higher score is indicative of less satisfaction while a lower score is more indicative of higher satisfaction. Total satisfaction scores were grouped into

three separate categories; one to nine points indicated satisfaction, ten to nineteen points indicated neutral, and twenty to twenty-eight points indicated not satisfied. Overall satisfaction score means were 9.3, SD=3.63 for the distance education group and 8.6, SD=2.48 for the face-to-face interaction group. This difference was not statistically significant ( $t_{58}=1.12$ ;  $DF=108$ ,  $p=.264$ ). There were no significant statistical differences ( $t_{58}=.169$ ;  $DF=108$ ,  $p=.87$ ).

Overall, there were 67% of the students who were in the preferred section and 39% who were not in the preferred section. The mean test grade was 82.8, SD=4.38 for the students who were in the preferred section and 82.2, SD=7.16 for the group that was not in the preferred section. No statistically significant difference was noted between test grades ( $t_{58}=.478$ ;  $DF=104$ ,  $p=.634$ ). The overall mean GPA for the group that was in the preferred section was 3.1, SD=.353 compared to 3.0, SD=.414 for the group that was not in the preferred section. This difference was not statistically significant ( $t_{58}=.646$ ;  $DF=104$ ,  $p=.520$ ). The mean class grade was 82.8, SD=3.99 for the group that was in the preferred section and 82.3, SD=4.80 for the group that was not in the preferred section. This difference in class grades was not statistically significant ( $t_{58}=2.68$ ;  $DF=104$ ,  $p=.563$ ).

Conclusion: Nursing schools have had to develop ways to handle faculty and space shortages. Distance education must be an option for nursing schools facing today's difficult challenges. No difference between the face-to-face and distance education group could indicate that distance learning is an effective teaching modality when compared to face-to-face interaction. Despite the limitation of the size of the study large differences between groups (large effects size) would have been detected if present.

It is important to note that student preference for a particular teaching modality did not impact the overall test grade. Difference in overall GPA and overall course grade were also not statistically significant. There were also no statistically significant differences of overall satisfaction between students who were and those who were not in their preferred section. This may suggest that providing both face-to-face interaction and distance education sections will not adversely affect student outcomes for the course.

Neither research question was supported by the data from the study. No differences were found between test scores of students who were taught therapeutic crisis management techniques via face-to-face interaction and those who were taught through a distance education format. No differences in the degree of nursing student satisfaction between distance education and face-to-face interaction when learning therapeutic crisis management techniques was found either.

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## PST1 - Poster Session 1

### Effectiveness of Active Learning Strategies: Student and Faculty Perceptions of Flipped Classrooms and Team-Based Learning

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#### Abstract

Nursing education is in the midst of a paradigmatic shift from a traditional, content driven model to one that supports student engagement in the learning process through active teaching strategies. The traditional lecture methodology has proven inadequate to address issues such as content overload, technological advances, an increasingly complex health care environment, and the persistent gap between educational preparedness and clinical practice. Additional challenges include changing student demographics, an exponential increase in new knowledge, and the importance of contextualizing information which raise important questions about the adequacy of traditional teaching approaches. Benner and colleagues (2010) encourage nursing faculty to shift the focus of education from decontextualized knowledge to teaching for a sense of salience. Innovative teaching strategies such as flipped or blended classrooms, scrambled instructional methods, and team-based learning approaches are becoming widely implemented to support a learner centered educational pedagogy. However, the student role change from passive to active learner does not occur without a sense of anxiety associated with the perception of an increased workload and unsettled classroom environments (Rotellar & Cain, 2016). Faculty also may express concerns about content not being covered, a lack of experience with techniques, student dissatisfaction and poor exam scores.

The purpose of this poster presentation is to explore faculty and student perception of the effectiveness of active learning strategies in didactic courses that previously delivered content using a traditional lecture format. Using a quasi-experimental design, a convenience sample of second semester BSN students at a Midwestern university will be asked to complete a 14-item questionnaire on their perception of the effectiveness of active learning strategies, engagement in the learning process and retention of information. The questionnaire will also include 3 open-ended questions on what the student liked, disliked or would change about the teaching methodology. Faculty members who are using innovative teaching strategies in their courses will be asked to complete a questionnaire on the influence of innovative teaching methodologies on student engagement, satisfaction, and performance outcomes.

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## PST1 - Poster Session 1

### Integration and Leveling of Nutritional Principles in Traditional ASN Nursing Curricula

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#### Abstract

Nutrition is an integral part of health promotion, disease prevention and treatment across the lifespan (Buxton & Davies, 2013). Research indicates that nutritional education is lacking in pre-licensure nursing programs (Stotts, Englert, Crocker, Bennum, and Hoppe, 1987). Most pre-licensure programs require a prerequisite nutrition class, which provides only basic information with little clinical integration (Buxton & Davies, 2013).

Fragmented nursing concepts such as nutrition influence the learner's ability to formulate linkages between theory and clinical practice (McGrath, 2015). Fragmentation occurs in traditional nursing curricula where content overlaps but fails to demonstrate appropriate leveling (McGrath, 2015). Research indicates that this problem persists into clinical practice, where most nurses were found to be deficient in basic nutritional knowledge (Buxton & Davies, 2013).

Fragmentation is avoided when content is integrated into the nursing curricula, as in competency based nursing education. However, many nursing schools continue to embrace a traditional curriculum. Nutritional content may be integrated into this type of curriculum as well. The following represents a sample of nutritional content with appropriate leveling in an ASN curriculum:

Core Nursing Course	Bloom's Taxonomy	Student learning Outcome (Didactic/Clinical)	Teaching Strategy
Fundamentals	Remember Comprehend	1. Examines personal dietary intake and nutrient content 2. Identify components required to meet optimal nutritional standards 3. Identify appropriate nutritional support for optimal patient outcomes	1. Dietary Recall and self-reflection 2. Develops appropriate meal plan based on dietary recall and self-evaluation. 3. Skills demonstration of nutritional support modalities; determine safe and effective feeding of diverse patients
Adult Health I	Application	1. Assesses influence of disease on nutrient absorption 2. Identifies diagnostic tests which identify nutrient deficiencies	1. Disease specific concept maps 2. Examine patient laboratory data for discrepancies. 3. Formulate an appropriate teaching plan
Adult Health II	Analysis	1. Analyze patient data and develop nutritional plan based on disease processes 2. Interdisciplinary collaboration to ensure optimal patient outcomes 3. Demonstrates evidence based principles in nutritional education	1. Comprehensive nutritional assessment 2. Ensure appropriate patient consults 3. Providing patient specific nutritional teaching

Appropriate nutrition is one of the most important long-term determinants of health. Nutrition is an integral component of all nursing programs. Leveling content is important to ensure progression of knowledge, which ultimately influences safe and effective care in nursing practice.

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## PST1 - Poster Session 1

### Faculty Reported Essentials of Quality Online Teaching

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#### Abstract

**Background:** Enrollment numbers in higher education online coursework have continued to grow while overall higher education enrollment has declined (Allen, Seaman, Poulin, & Straut, 2016). The inability to directly observe teaching in online courses has created the need for an alternate method of distinguishing quality online course offerings for both university administrators and students alike (Boysen, Kelly, Raesly, & Casner, 2014). Frequently, the quality of an online course is measured by the use of an established rubric, such as the Quality Matters (QM) rubric. These rubrics allow for objective determination about the quality of an online course's design as measured against pre-established standards. The 2014 QM higher education rubric measures eight standards paralleling quality instructional design principles (Quality Matters, 2017). It is important to note, rubrics such as the QM rubric, do not allow for the measurement of quality online instruction provided to the students enrolled in the course per se. The evaluation focus of these rubrics is on the course design rather than the teaching (Pina & Bohn, 2014). An excellent online course is the result of quality instructional design in combination with the delivery of quality teaching. Student learning outcomes will be primarily impacted by the quality of teaching provided by the online instructor (Frazer, Sullivan, Weatherspoon, & Hussey, 2017). There is a need for more research about how to measure the delivery of quality online instruction in higher education courses.

**Purpose:** Quality instructional design and quality course instruction are dissimilar concepts and as a result should be measured differently. Many higher education courses, taught solely online, are taught by faculty who did not participate in the development of said courses (Lowenthal, Bauer, & Chen, 2015). As a result of decades of research, seven principles of good teaching practices for use in higher education instruction have been widely recognized (Chickering & Gamson, 1987). Historically, these established principles of quality face-to-face teaching have served as the framework for quality online teaching (Shelton & Hayne, 2017). The premise is these known principles of quality instruction in the face-to-face classroom can also be used to evaluate the quality of teaching provided in the online classroom. Crews and Wilkinson (2015) surveyed faculty teaching online and asked them to correlate the QM rubric standards to Chickering and Gamson's principles of good teaching. The results of their research indicated further exploration about how online course design influenced quality online teaching. More defined criteria to objectively measure quality online instruction in higher education course offerings are needed to facilitate faculty self-reflection on needed course improvements and to further define online teaching for peer review purposes. This purpose of this pilot study is to increase understanding about what constitutes quality online teaching as perceived by faculty teaching online.

**Methods:** The research design planned for this study is retrospective, qualitative data analysis. A purposive sampling method will be used to seek the perceptions of faculty teaching online. The participants will be asked to expand upon principles considered as essential for quality online instruction in order to objectively gather information. This information will be sought through open-ended, fill-in-the-blank questions within the anonymous, researcher created, online survey deployed to all institutional faculty currently teaching online courses is to objectively gather information determining how the established principles of quality teaching are incorporated into the online classroom. This proposed research will be guided by the following research question:

1. How are Chickering and Gamson's (1987) principles of good teaching reflected in online instruction as perceived by higher education faculty with online teaching experience?

**Results:** Survey data will be retrospectively analyzed using qualitative content analysis (QCA). Qualitative content analysis is a research technique that provides new insights, increases researcher's understanding of a particular phenomenon, or informs practical actions (Krippendorff, 2013; Schreier, 2012).

**Conclusion:** The results of this planned research will have implications for educational institutions offering online courses. Students, faculty, and administrators should all benefit from information about how to better evaluate the quality of online teaching. Results gleaned from this study will seek to correlate the connection between known principles of good teaching practice and quality instruction in online courses. Additionally, this research will report further principles, deemed to be essential for quality online instruction, as perceived by faculty with online teaching experience.

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## PST1 - Poster Session 1

### Assessment of Understanding of Foundational Genomic Concepts Among RN-to-BSN Nursing Students

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#### Abstract

The advancement of genetic science and technology has transformed health care (Daack-Hirsch et al., 2013). Genomics is now being integrated across the health care continuum at the point of care in areas such as risk assessment, prevention, screening, diagnosis, treatment, prognosis, and personalized medicine (Calzone, et al., 2012; Calzone & Jenkins, 2012; Clark, Adamian, & Taylor, 2013). All health care providers need to integrate genetics and genomics into their practice in order to provide holistic care to patients. Nurses are the largest health care profession, with 2.9 million registered nurses (RNs) active in 2012 (Health Resources and Services Administration [HRSA], 2013) and a projection of 3.5 million in 2025 (U.S. Department of Health and Human Services, HRSA, National Center for Health Workforce Analysis, 2014). Nurses practice in all health care settings, and continue to be rated as the most honest and ethical professionals (Riffkin, 2014). Nurses need to be at the forefront of integration of genomics into clinical practice. However, despite educational initiatives, nurses have limited knowledge and have shown minimal integration of genetics-genomics competencies into nursing practice.

The development of the *Essential Nursing Competencies in Genetics/Genomics* in 2006, which were updated with outcome indicators in 2008 (Consensus Panel on Genetic/Genomic Nursing Competencies, 2009), provided nursing with a framework for identifying the educational needs of nurses. The American Association of Colleges of Nursing (AACN) used these competencies to support their recommendation for the inclusion of genetics and genomics into nursing curriculum (AACN, 2008; Jenkins & Calzone, 2012). Educational programs and curricula guidelines have been developed to assist in the integration of genetics and genomics into baccalaureate nursing curricula (Calzone, et al., 2013a; Calzone & Jenkins, 2012; Jenkins & Calzone, 2014). Genetics has been included in undergraduate curriculum via both stand-alone genetics courses, and integration across the curriculum. Many studies have addressed genetic and genomic knowledge gaps, integration of competencies into practice, and educational needs of nursing students, practicing nurses, and nurse educators (Calzone, et al., 2012; Calzone, et al., 2013b; Calzone, et al., 2014; Coleman, et al., 2014; Scanlon & Fibson, 1995). Recent research has included the use of nursing's first concept inventory (The Genomic Nursing Concept Inventory (GNCI ©) to evaluate meaningful learning of genetic concepts, as well as common misconceptions (McCabe, Ward, & Ricciardi, 2016; Ward, French, et al., 2016; Ward, Haberman, & Barbos-Leiker, 2014; Ward, Purath, & Barbosa-Leiker, 2016). Ausubel's Assimilation Theory suggests meaningful learning is a better approach to understanding difficult concepts, as opposed to rote learning (Ausubel, et al., 1978). Meaningful learning occurs when new knowledge is anchored with pre-existing knowledge in a person's cognitive structure. The majority of studies identified that nurses with a higher level of education, and nurses who had taken a genetics course since licensure had increased knowledge and increased integration of genetic competencies into practice. However, many of these studies did not include RN to BSN students. Scant research is available to assess the genetics knowledge of the practicing RN enrolled in a BSN completion program. The educational barriers include nursing faculty with a weak understanding of foundational genetics and a lack of practicing nurses' knowledge (Jenkins & Calzone, 2014; Read & Ward, 2016). Research has indicated some progress in the acquisition of genetic-genomic knowledge by nurses, but much work still needs to occur. The Genomic Nursing Concept Inventory (GNCI©) was developed to evaluate nurses' and nursing students' understanding of foundational genetic-genomic concepts, or genetic-genomic literacy (Ward, Haberman, & Barbosa-Leiker, 2014). The purpose of this descriptive research was to identify the current genetic-genomic knowledge and misconceptions of RN to BSN students as measured by the Genomic Nursing Concept Inventory (GNCI©) (Ward, Haberman, & Barbos-Leiker, 2014). The participants were registered nurses enrolled in or recently graduated from an online RN to BSN completion program in a large, urban university in the Mid-Atlantic region of the United States. A cross-sectional design was used and provided access to students at varied levels of progression within the program, in various stages of development (Houser, 2015). This design allowed the researcher to analyze differences among participants across the continuum of their program, compare these differences against the GNCI© score, and provide more generalizable results. The differences evaluated included age, sex, educational program at attainment of licensure, and past genetic education.

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## PST1 - Poster Session 1

### Augmented Reality: Using the Microsoft HoloLens® to Promote Student Success

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#### Abstract

**Background:** Simulation is a widely accepted educational strategy used to create realistic patient care opportunities for nursing students in a safe learning environment (National League for Nursing, 2015). Further, the National Council of State Boards of Nursing (NCSBN) landmark study exploring the role and outcomes of simulation in pre-licensure nursing education across the United States, concluded that simulation can be used as a substitute for up to fifty percent of traditional clinical experiences when delivered in a way that is evidence based (Hayden, Smiley, Alexander, Kardong-Edgren & Jeffries, 2014). Currently, multiple modes of simulation are being used in various educational contexts to allow nursing students to apply theory into practice including the use of computers, low-to-high fidelity manikins, task trainers, standardized simulated patients, and standardized human patients. Unfortunately, many of the modalities used within simulation are expensive and not quantifiable in terms of return on investment. Newer technologies such as augmented reality (i.e., Microsoft HoloLens®) may be an answer to this dilemma. Augmented reality devices provide a computer-generated reality through the use of specialized ear and eyewear, which allow a student or group of students to experience a variety of visual and auditory stimulation. Overall, augmented reality devices are less expensive than traditional high-fidelity simulators, can be used anywhere and are technologically advanced (INACSL Standards Committee, 2016). However, its use has not been fully explored for reliability and validity within baccalaureate nursing education.

**Purpose:** The focus of this study will be to determine whether the use of a Virtual Standardized Patient delivered with the Microsoft HoloLens® can improve the knowledge, skill, and confidence of nursing students with regards to nursing assessment and intervention in a low-frequency, high-stakes scenario.

**Methods:** This quasi-experimental study will utilize the virtual standardized patient scenario for anaphylaxis, which is a low-frequency, high-stakes scenario developed by Microsoft HoloLens® as its augmented reality education treatment. The study sample will include over 150 pre-licensure medical-surgical students at the sophomore, junior, and senior-level at a large school of nursing on the West Coast. In addition, approximately 20 Registered Nurse-Bachelor of Science students at the university's satellite campus will also participate in the study. After the theory for caring for a patient who is experiencing anaphylaxis has been reviewed in the classroom during the Fall 2017 semester, students will be randomly assigned to one of the following groups: 1). Full Dose-students who individually experience the anaphylaxis scenario utilizing the Microsoft HoloLens® technology, 2). Partial Dose-students watch a video of taped Microsoft HoloLens anaphylaxis experience from the student's perspective, or 3). Control-students work through a written anaphylaxis case study. Following the experience, each student will have their knowledge regarding anaphylaxis, their nursing skill related to caring for a patient experiencing anaphylaxis, and their self efficacy (confidence caring for a patient with anaphylaxis) assessed using validated instruments. Analyses of variance will be conducted to examine differences among and between study groups. In addition, focus groups will be conducted to allow students to provide feedback on their experience with the Microsoft HoloLens®.

**Implications for practice:** According to the National League for Nursing (2015), nursing faculty should become experts in simulation. The NLN further denotes that nurse educators should strategically integrate simulation into curriculum with concrete connections to student learning outcomes. The debate exists regarding what technology is best, how the technology can be fully integrated to produce measurable student learning outcomes, and what is the right combination of simulation versus real-life clinical experience. This study helps bridge the gaps identified by the NLN. Newer technologies such as augmented reality (i.e., Microsoft HoloLens®) have the potential to transform nursing education. The technologies are less expensive than previous modalities, are mobile, and can provide a safe environment for students to improve knowledge, skill, and confidence with nursing assessment and proactive intervention in a low-frequency, high-stakes scenario. This study will provide quantitative and qualitative data not currently found in the literature regarding the reliability and validity of using an augmented reality virtual standardized patient simulation experience in nursing education. This data can be used by policy makers, educators, students, and clinical partners to better provide evidence-based teaching methodologies that prepare student nurses and licensed nurses to have the knowledge, skill and confidence in caring for low-frequency, high-stakes scenarios that can't otherwise be practiced in real life.

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## PST1 - Poster Session 1

### WIL CONNECT: Connected Learning for Nursing and Allied Health Professionals via a Mobile App

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#### Abstract

Mobile technology has been described as 'a way to transform learning. It is a catalyst for creating impactful change in the current system and crucial to student development in the areas of critical-thinking and collaborative learning.....skills that are needed in a globally competitive economy' (West, 2013, p. 14). Whilst understandings of mobile learning and m-learning are still evolving, Crompton (2013) defines m-learning as 'learning across multiple contexts, through social and content interactions, using personal electronic devices' (p. 3). Not surprisingly the popularity of mobile technology and internet usage are making mobile devices an important tool for m-learning and impacting on the ways in which traditional courseware is being delivered in higher education. M-learning allows students to learn independently regardless of time and place facilitated by the arrays of mobile devices and wireless Internet (Tan, Ooi, Sim & Phusavat, 2012).

Perhaps one of the most important educational affordances offered by mobile technology is the opportunity that it provides in terms of enabling connected learning. Connected learning can be described as a pedagogical approach that 'seeks to integrate three spheres of learning that are often disconnected - personal interest, peer relationships, and academic achievement' (Mizuko et al., 2013, p. 63). This enables the learner to uniquely integrate personal connections, in-class and out-of-class experiences, collaborations, and resources of all kinds resulting in a deeper learning experience that better addresses learners' specific needs. Importantly, connected learning requires not just the acquisition of knowledge but also an understanding of how to use connections to ask questions, find answers and develop competencies (Educause, 2013).

These rapidly emerging trends offer exciting possibilities which have the potential to enrich the educational experience of nursing and allied health professional students, particularly within the clinical practice context. Unlike classroom learning, students in the clinical setting frequently have to contend with situations that are unplanned, complex, multidisciplinary in nature and needing to be dealt with quickly on the basis of incomplete information (Yorke, 2011). These and other factors complicate the realisation of integrative educational experiences and, potentially, the quality of learning outcomes achieved by students. Given the potential of mobile technologies to enable connected learning outcomes, our question is whether, and in what way/s, an m-Learning solution designed to facilitate interprofessional student collaboration during clinical practicums might complement the supervisory guidance being received and enhance the overall quality of student learning.

This presentation reports on our work in progress to develop a mobile app designed to provide a real-time means by which students from nursing and allied health disciplines can meaningfully connect with each other during the course of a clinical placement in order to share insights, pose questions, receive feedback and reflect on their learning. The app's conceptual design draws upon four principles of connected learning: accessible learning experiences which allow participation in different ways, are linked to participatory and experiential activities, centred around shared interests which create a 'need to know', and provide a means by which learners can share their work, knowledge and skills with others (Mizuko et al. 2013). It includes a social networking strategy for students to introduce themselves to other members of the peer-based community, conversation triggers to stimulate dialogue amongst the community and opportunities for the real-time sharing of thoughts, questions, ideas, suggestions, insights etc. regarding their experiences in the various clinical settings in which they were placed.

Twenty two undergraduate students from the disciplines of nursing, social work and nutrition and dietetics volunteered to participate in the pilot which was conducted in late 2016/early 2017. A short briefing session about the aims of the project and how to use the app were provided to students prior to the commencement of the pilot. Evaluative feedback was collected using a purpose-built online survey and a face-to-face focus group discussion. Basic statistical procedures were used to analyse the quantitative data, and thematic analysis was used to identify and analyse patterns in the qualitative data yielded from the focus group discussion (Braun & Clark, 2006). Quantitative and qualitative data indicate that students valued the opportunity to connect with their multidisciplinary peers during the course of a clinical practicum in the workplace. However, content analysis of their online dialogue (Miles & Huberman, 1994), and commentary during the focus group discussion, highlight several issues which have important practical and curriculum implications for their engagement with the app and consequent realisation of learning benefits. Outcomes from the pilot are being used to refine the initial prototype app for testing on a wider scale in the latter part of 2017.

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## PST1 - Poster Session 1

### Influencing Factors of NCLEX-RN® Pass Rates Among Nursing Students

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#### Abstract

Nursing education programs have evolved overtime to prepare registered nurses. The National Council Licensure Examination Registered Nurses (NCLEX-RN) pass rate is an important measure of quality in nursing education programs. Previous research has shown that various factors influence pass rates. The purpose of this mixed methods study is to investigate factors influencing NCLEX-RN pass rates at one baccalaureate nursing program. The first phase of this study used the student record of those who graduated between 2013-2016. The data includes preadmission information and Health Education Systems Incorporated (HESI) scores, which were administered during the program. The preadmission data included: main vs. satellite campus location, accepted from the initial applicant pool or wait list, first vs. second baccalaureate degree, native or transfer student, Test of Essential Academic Skills (TEAS) score, prerequisite grade point average (GPA), overall preadmission GPA, and English as a first language. HESI scores on fundamental health, med-surg, pediatric, and the exit exam were included as potential predictors of NCLEX-RN pass rates. Data was analyzed using logistic regression. The initial analysis indicated students with a higher prerequisite GPA ( $\beta = 1.367, p < .05$ ) and English as the first language ( $\beta = .988, p < .05$ ) were successful in passing NCLEX-RN. Students with a higher med-surg, HESI exam ( $\beta = .004, p < .05$ ), and exit HESI exam ( $\beta = .006, p < .05$ ) were also successful at passing the NCLEX-RN. The second phase included a survey with 12 semi-structured questions using the online survey tool, Survey Monkey®. Emails containing the online survey tool were sent between the spring 2015 and fall 2016 semesters to 355 recent nursing baccalaureate program graduates. Of this number, 170 (47.8%) emails were opened and 4.9% bounced because the email address was incorrect. The survey emails were sent to the students at four different points in time, approximately a week apart, using their school and personal email addresses. The response rate is 28.7% based on the first round emails sent. However, when excluding emails that were not opened and bounced, the response rate increased to 60%. The majority of respondents graduated between spring and fall of 2016. Approximately half way through the survey administration, internal funding was secured and \$10.00 gift cards were offered to improve response rates. A total of 26 gift cards were sent to respondents. Survey questions included "How did you prepare for the NCLEX-RN exam", "Did anything happen during the exam that influenced your performance?" and "Why do you think you passed/didn't pass the exam on the first try?" Several common themes emerged from the results as for reasons of passing the NCLEX-RN on the first try: taking a review course, aggressive use of practice questions, and studying. The most common perception for not passing the NCLEX-RN on the first attempt was anxiety. The results from the second phase of study presented a description of what the students' perspectives are prior to and after taking the NCLEX-RN exam. The results of this study can be utilized to develop strategies in nursing programs to support students as they prepare to take the NCLEX-RN exam and to be successful when taking the NCLEX-RN exam. In conclusion, there are many factors influencing NCLEX-RN pass rates and they should be considered as the cornerstone of nursing programs.

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## PST1 - Poster Session 1

### Managing the Panic: High-Fidelity Simulation Prior to the First Clinical Experience of Undergraduate Nurses

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#### Abstract

**Background:** Transitioning from the classroom to the clinical setting can be both exciting and anxiety-provoking for undergraduate nursing students. Nursing educators are tasked with ensuring that students are prepared to integrate and apply newly acquired nursing knowledge into the clinical setting. This preparation often centers on proficiency in nursing skills and didactic course-work, but rarely addresses the anxiety associated with applying nursing knowledge and skills in an authentic clinical setting with “real” patients. Use of multiple clinical simulation experiences that focus on bolstering student confidence in professional communication and fundamental nursing skills may reduce student anxiety prior to their first clinical experience. In a recent study, Ross and Carney (2017) found that undergraduate students who completed one clinical simulation scenario prior to entering the clinical setting significantly reduced student anxiety and increased self-confidence related to clinical decision making. The purpose of this study is to build on the previous study (Ross & Carney, 2017) by examining the effect of multiple clinical simulation experiences on the anxiety associated with clinical-decision making processes among second year baccalaureate nursing students prior to their first clinical experience.

**Method:** This replication study is a descriptive pre-test and post-test design conducted at a large public university in the mid-Atlantic area of the United States. Participants were a convenience sample of second year undergraduate students (N=88) enrolled in a fundamentals clinical course in a four year baccalaureate nursing program. Three 4-hour clinical simulations were designed for small groups of 7-8 participants and included core nursing objectives such as communication, professionalism, physical assessment, nursing process, and skills application. Course faculty designed three new simulations based on these objectives. To assess anxiety and self-confidence, the Spielberger State-Trait Anxiety Inventory and Nursing Anxiety and Self-Confidence with Clinical Decision-Making Scale were administered before and after each of the three clinical simulations. The Institutional Review Board approval was obtained from the site prior to beginning the study.

**Preliminary Results:** This study will be conducted during the 2017-2018 academic year for all BSN students in their fundamentals of nursing course prior to their first clinical experience. Anecdotal evidence from past fundamentals simulations as well as past simulation research studies from the healthcare literature suggest that conducting the outlined simulations prior to entering the clinical setting will decrease student anxiety and improve self-confidence with clinical decision-making for this population of nursing students.

**Conclusions:** Evidence from the literature suggest that the initial transition into the clinical setting can be negatively impacted by increased levels of anxiety experienced by undergraduate nursing students. Data from past fundamental clinical course evaluations at this institution suggest that students experience high levels of anxiety that may impede their application of knowledge and emerging critical thinking skills during their first clinical experience. Bridging didactic and clinical courses with authentic simulation experiences creates opportunities for integration and application of fundamental skills in a safe, low-stakes environment and may decrease student anxiety to enhance the clinical learning experience.

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## PST1 - Poster Session 1

### Educating Critical Care Nurses on Moral Distress: Building a Sustainable Solution Through Online Continuing Education

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#### Abstract

Nurses are the largest group of healthcare providers in the United States (U.S.) and a shortage of 500,000 nurses in the U.S. is predicted to occur by 2025<sup>1</sup>. Unsafe staffing, high turnover rates, and decreased quality of patient care are some of the well documented side effects that occur when there is a shortage of nurses in the workplace. Moral Distress has been reported as a leading factor of nurse resignation and poor patient outcomes<sup>2</sup>. Moral distress is the ethical concern that arises when an individual knows the right thing to do but is inhibited to do so because of an authoritative power or policy. Moral distress affects nurses' physical and psychological health, job satisfaction, and intent to leave their positions<sup>3</sup>.

According to the American Association of Critical Care Nurses (AACN) "moral distress is experienced by one in three nurses and studies show that among 750 nurses, nearly 50% had acted against their consciences in providing care to terminally ill patients"<sup>4</sup>. The effect of moral distress on nurses can be extensive. Nurses report experiencing the effects of moral distress ranging from physical and psychological symptoms such as depression, fear, and anger, to resignation from their positions and from the profession<sup>5,6,3,7</sup>. Patients and their families may experience the impact of nurses' moral distress through decreased quality of care, nursing ambivalence to meet patient care needs, delayed treatments, and prolonged hospitalization<sup>8,3</sup>. Patient care situations that have been found to cause moral distress involve inadequate nurse-physician communications, continued life support even though it is not in the best interest of the patient, and false hope and prolonged treatments given to patients<sup>9,10</sup>. Moral distress also influences the healthcare environment through financial losses as a result of decreased nurse staffing levels and recruitment efforts, poor retention of nurses, and patient safety issues<sup>11</sup>. Work environment issues contributing to moral distress are inadequate staffing and training to provide care, and lack of autonomy in the work environment<sup>9,10</sup>. The effects of moral distress seriously impact health care delivery and nurses, the direct providers of care.

While there is a plethora of research defining moral distress, how it occurs, and how it is measured, there is little evidence to support interventions that are effective in mitigating moral distress in nurses. Creating and implementing programs to identify and reduce moral distress are key actions to promoting a healthy work environment<sup>12,13</sup>. Teaching the American Association of Critical Care Nurse's (AACN) 4 A's To Rise Above Moral Distress program is one approach to reduce moral distress, increase awareness, and manage morally distressing patient care situations in nursing. The purpose of this quality improvement project is two fold: (1) evaluate CCU nurses' acceptability of an online learning program on moral distress, and (2) evaluate a change in moral distress frequency and intensity experienced by direct care critical care nurses at one academic medical center one month after implementing an online continuing education program based on the AACN's 4 A's model. The plan for the project is to adapt the didactic portion of the AACN 4 A's evidence based program into a narrated, online learning module. Modules will be uploaded into the Medical Center's online learning management system (LMS). Modules posted in the LMS will help to ensure the CCU nurses' ease of accessibility to the 4A's educational program. Critical care nurses will be recruited to participate in the first session of the project which includes an online pre-test survey using the Moral Distress Scale-Revised (MDS-R) and viewing the online modules. This initial session of the project will provide data for establishing a baseline frequency and intensity of moral distress of the nurses who participate. One-month post intervention of viewing the 4A's program, the second session of the project will be conducted. Participants will return to complete an online post-test using the MDS-R to re-measure moral distress and an Acceptability Questionnaire to evaluate the nurses' acceptance of the online learning modules. If the results of this project indicate that a proactive intervention can reduce the impact of moral distress on this unit, then the 4A's online continuing education module may be expanded to other hospital units as part of annual competency training, new orientation and nurse residency programs.

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## PST1 - Poster Session 1

### Strategies Teaching Interdisciplinary Collaborative Practice and Education at a Nurse Managed Clinic in Underserved Communities

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#### Abstract

Nursing faculty utilize Interprofessional Collaborative Practice and Education (IPCP/IPE) to integrate multiple competencies into healthcare profession programs providing a platform for faculty development and leadership skills among students. The Institute of Medicine (IOM, 2015) called for Interprofessional Collaborative Practice (IPCP) and Interprofessional Education (IPE) as a model for improving quality healthcare while decreasing costs. Interprofessional education in community settings has been isolated from practice and curricula often lack relevant content and guidelines for implementation. Integrating evidence based practice (EBP) as a problem solving approach within an IPE educational format in community settings has been minimally described. Eight disciplines that included Nursing, Healthcare Administration, Clinical Laboratory Science, Data Analysis, Clinical Affairs, Informatics Specialists, Integrative Health, and Public Health and students from each of these disciplines participated in a grant funded project to develop protocols for a nurse managed clinic in Watts, a medically underserved community in Los Angeles, California. Faculty and RN/BSN students participated in twelve online synchronous IPCP/IPE workshops consisting of three phases. The first Phase or the Didactic component was the organizing framework providing the foundation for all health professions curricula is based on the principles of collaboration, increasing diversity and mutual human-environmental processes. The second phase or the Simulation component supported the collaboration and interprofessional team training utilizing interactive video scenarios. In Phase 3, the Clinical component, students were assigned to the Project to gain hands on experience in meeting the needs of diverse patient populations under the supervision of the Project Manager, Project Coordinator and Advanced Practice Nurses (APNs). The objectives for the RN-BSN students were to 1) develop a patient-centered diabetes disease management tool, 2) create a tool to establish a continuum of self-management assessment, and 3) provide culturally and linguistically sensitive diabetic management interventions to reduce the morbidity and mortality rates. Unique opportunities exist in utilizing IPE/IPCP to integrate multiple competencies into healthcare profession programs that will prepare graduates to navigate successfully the complex, healthcare landscape throughout their careers. This presentation reflects on the development of protocols providing suggestions for future interprofessional collaborative practices.

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## PST1 - Poster Session 1

### Games, Frames, and Decision-Making: A Multimodal Approach to Teaching Delegation to Prelicensure Nursing Students

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#### Abstract

**Background:** Responsible delegation is a critical clinical learning outcome for pre-licensure nursing students in most developed countries. Rationale and methods for professionally responsible delegation skills are taught near the end of formal nursing education, as students begin care of multiple patients and when more complex care is required. Teaching delegation skills includes the five rights of delegation, authority of the RN role, developing clinical reasoning skills, and identifying leadership strategies. Millennial nursing students, born after 1980, are comfortable with the use of high level electronic devices as part of their daily learning style that can aid in development of critical thinking. Electronic gaming with pre-programmed questions on nursing delegation roles and responsibility leverages this inherent level of comfort for classroom teaching with a smartphone “App” (application). Faculty guided review of aggregated App responses engages students in active debriefing for clarification and comprehension of duties that can safely be delegated to an unlicensed assistive personnel.

Small group learning activities augment lecture content to allow safe decision making practice, and to adopt varying team roles in a simulation setting. Students practice prioritization through clinical simulation and role playing scenarios, develop leadership skills, and build insight through small group exercises. Case-based learning and role play encourages critical thinking that allows students to consider appropriate transfer of care, while retaining nursing authority, as the basis for delegation. Delegation of less critical nursing duties to a delegatee, whether unlicensed assistive personnel (UAP) or student peers, by the nursing student improves patient care through better student time management and prioritization of care for multiple patients. Delegating patient care according to accepted standard of care and agency policy, the student nurse must understand the role of unlicensed assistive personnel (UAP) to assure consistently safe patient care. Delegating appropriate tasks and procedures requires clear communication, and follow up with the UAP on assigned work is an expected responsibility of the nursing student as delegator.

Students who learn to use delegation effectively are better able to focus on more complex patient care, medication administration and patient teaching, while self-reflection on role transformation identifies personal readiness for assuming appropriate delegation responsibilities essential to safe patient care.

**Purpose:** The purpose of this educational intervention is to teach pre-licensure nursing students the delegation process through implementation of multi-media, multi-method approaches in the classroom and clinical setting. The nursing process is multifaceted and includes delegation as an essential attribute of the developing professional nurse. Clinical application of nursing delegation among all members of the healthcare team optimizes safety in patient care and positive patient outcomes.

**Objectives:** Classroom and seminar breakout sessions to instruct pre-licensure students the delegation process using multi-method approach strategies to include:

**PPT content presentation:** Audiovisual method with didactic explanation/content to provide a fundamental introduction of delegation concepts.

**Kahoots game:** Information Technology interactive games to apply fundamental delegation concepts to clinical situations. Interactive gaming promotes social learning and deeper pedagogical impact through use of questions

**Case studies:** Break out sessions to provide critical thinking opportunities and peer collaboration exercise.

**Debriefing:** Provide safe environment for debrief and reflection session.

**Instructional Activity Description:** The multimedia delegation learning experience utilized various educational modalities to disseminate fundamental nursing delegation information to pre-licensure students. The 2-hour activity was conducted prior to students entering a capstone clinical experience during their last semester. Learning occurred in both large and small classroom settings. Students were exposed to delegation material thru a presentation, *Kahoot!* questions, case studies, and debriefing. Details regarding content and activities utilized to engage students during the 2-hour period included: PowerPoint Presentation of fundamental information pertaining to delegation delivered in large group setting (20 minutes); *Kahoot!* Interactive Game of multiple choice questions delivered via online game to reinforce delegation information from presentation (15 minutes); Case Studies working within assigned clinical groups and guided by clinical faculty, students examined cases studies and applied newly learned delegation information (45 minutes); and Debriefing in large group summary of activities employing specific debriefing questions to promote meaningful reflection about delegation (30 minutes).

**Outcome Expectation:** Utilization of the four instructional and interactive components will increase student knowledge, skills and attitudes necessary for role transition to active clinical leadership. Following this session, in a three week clinical capstone experience students will create reasonable patient assignments using complex client health situations and will demonstrate appropriate delegation of patient care responsibilities to other senior level pre-licensure nursing students, in the context of potential urgent or rapidly changing client health situations. Peer evaluation of both leader and care giver responsibilities will ensure open and meaningful communication among student leaders and their nursing student team members.

**Implications/Recommendations for Nursing Education:** This instructional methodology increases pre-licensure student learning of the delegation process prior to entry into a robust medical/surgical capstone clinical experience. Educators aim to increase understanding of the student nurse leader's role through authoritative delegation of tasks and maintaining accountability for the success of the delegation process. Components of delegation include the delegator, delegatee, and the task to be accomplished through the four teaching methods: PPT, *Kahoot!* Game play, Case studies, and Debriefing.

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## PST1 - Poster Session 1

### Diabetic Retina Exam at Onsite Work Health Clinic Utilizing Telehealth Technology

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#### Abstract

**PROBLEM:** Diabetes is the primary cause of new cases of blindness in American adults. An October 2016 study by Fisher et al., with 339,646 diabetic patients, found that 57% did not complete recommended annual eye screening with one barrier cited as patient's time constraints.

**PURPOSE:** This project evaluates the change in completion percentage of annual diabetic retina screenings using an inexpensive smartphone retina camera in an urban family practice. 58.7% is the goal defined by HealthyPeople 2020 *Midcourse Review* released in 2016 for annual diabetic retina screening. The study practice had a completion rate of 34% in May 2017.

**EBP QUESTIONS:** Will implementing the nurse practitioner lead smartphone retinal screening protocol increase completion rates of diabetic retina screening? Do patients complete annual eye or retina specialist referrals at a higher rate if a retina scan result is not normal? Can a nurse practitioner providing a convenient retina scan change a patient's self-efficacy and empowerment?

**METHODS:** This project study uses a quasi-experimental design convenience sample with a pretest and posttest survey, *The Diabetes Empowerment Scale*, developed by in 2000 and revised to an 8 question short version in 2003. The telehealth intervention is the D-EYE smartphone ophthalmoscope. Subjects are current diabetic patients, over 18 years old, who had selected the center as their primary care. Recruitment occurs over 3 months with a short explanation of the study, consent, survey and retina scan completion. The nurse practitioner contacts the patient and initiates a referral. Four weeks post referral the patient will be contacted to validate the follow-up and complete the post survey.

**OUTCOMES:** It is anticipated that post study results will demonstrate retina screening percentage increase exceed the HealthyPeople 2020 goal of 58.7%. Poor retina screening results will result in higher numbers of completed eye specialty referrals. Patients who have lower empowerment survey scores will have higher empowerment scores post intervention.

**SIGNIFICANCE:** This project empowers the nurse practitioner with an affordable telehealth tool to bridge the gap in diabetic patients completing their annual retina scan. Utilization of telehealth increases completion of diabetic retina screening. Early identification of conditions that cause blindness in this high-risk population leads to timely referrals to eye specialist and early intervention. Patients identify self-efficacy through early knowledge while reducing the barrier of convenience to screening. Employers, families and patients have reduced financial and emotional stress related to the sequela of blindness if diabetic retinopathy is not caught early enough to treat. Exceeding the goal of 58.7% from HealthyPeople 2020 by screening 100% of the population and incorporating eye screens in to family practice as easily as blood pressure evaluations.

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## PST1 - Poster Session 1

### Investigating the Impact of a Video Response Discussion on Student Engagement in an Online Course

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#### Abstract

**Introduction:** The social learning theorists of the past, such as Vygotsky and Bandura identified the importance of social influence on the learning process. The majority of today's learners are considered part of the Millennials (Net Generation) and utilize technology on a daily basis (Sherman & Lynn, 2009). As we continue to strive to improve engagement in the online course room, it is important to identify the most effective ways to enhance learning. The discussion board has been used in online courses as a way for students to interact with their peers. This research proposes that there may be a more effective way to engage the online learner.

**Objective:** Compare student engagement/interactivity in two different types of assignments (Video versus standard Discussion Board).

**Problem Statement:** Faculty are often frustrated because the teaching strategies of the past are no longer effective with the Net Generation. Emerging technologies need to be investigated for effectiveness in promoting student engagement and interactivity in the online course. The traditional discussion board provides a flat, one dimensional format for students to interact with their peers. Richey and Klein (2007) discussed the ongoing interest in research related to technology-enhanced learning environments. Could research support the idea that technology enhanced learning may increase student engagement? Could an assignment using video responses rather than the flat, one sided discussion boards improve student engagement? According to Richey and Klein, it is important to clarify the process by which people learn, typically through interactions with instructional technologies and other learners (2007).

**Theoretical Framework:** Social learning theory discusses the importance of learning naturally in conversations with others rather than in regimented, pre-packaged segments (Batson, 2009). Bandura (1977) described social learning theory as how people learn from one another, Brunner (1964) believed that learning cannot occur in isolation. Vygotsky (1978) held the belief that learning cannot be understood outside the social concept of learning. In 2003, Bender concurred stating that working together in the course room enhanced learning by allowing students to question and share meaning with other learners. The common theme among these theorists is the belief that students do not learn in isolation, therefore instructional strategies that allow for social engagement may enhance the learning environment. Sims and Koszalka, stated that social engagement/interactivity is critical to the overall effectiveness of the online learning experience. Students need to be able to communicate with their peers, both in writing and verbally. It is essential that that faculty participate in the learning process, but gradually decrease the amount of support given to students (Candela, 2016). It takes creativity in an online environment to ensure that students are given ample opportunities to collaborate with one another and reflect on their work. To overcome barriers, teachers must view the integration of new technologies as a vehicle to improve learner outcomes (Lawrence & Lentle-Keenan, 2013). While faculty believe video response will provide a more engaging learning environment, there has been little research on the topic.

**Purpose Statement:** The purpose of this quasi-experimental study is to determine the effect on student engagement when a video discussion is utilized instead of the traditional discussion board.

**Research Question:** Could an assignment using video responses rather than the flat, one sided Discussion boards improve student engagement?

**Hypothesis:** For the purpose of this research study, the hypothesis was; The use of a video response assignment compared to a standard discussion board forum will increase students' perception of engagement/interactivity in the online course.

**Methodology:** A convenience sample was used of those students already enrolled in an online course. The students were adult nursing students enrolled in the master's program. There were 160 students enrolled in the course (multiple sections). The duration of the subject's participation in the study was 10 weeks. The study completed in winter quarter 2017.

All students enrolled in the course completed discussions in two different formats, with two imbedded video response exercises and two standard Discussion Boards. A survey measuring student perception was sent to all students who consented to be part of the study during the last week of the course using Qualtrics. The survey also contained some descriptive data of experience with online learning, ESL student, and age. The data was collected by using the COLLES survey. The COLLES survey is designed to measure students' preferred or ideal experience with online learning. The questions are grouped into six categories. The first four questions focus on relevance, Questions five through eight focus on reflection, Questions nine through 12 on interactivity, Questions 13 through 16 on instructor support, Questions 17 through 20 on peer support, and Questions 21 through 24 on interpretation. For the purpose of this study, the focus was on data collected from questions 9-12 on interactivity and questions 17 through 20 on peer support. The data were analyzed using paired sample t tests to determine statistical differences.

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## PST1 - Poster Session 1

### Incorporation of Community Health Virtual Simulation Into a Capstone Population Focused Project: A Pilot Study

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#### Abstract

The integration and use of simulation in online nursing education is continually growing and evolving. Nurses who usually select an online education do so for its flexibility as well as the ability to continue to work while in school (Breen & Jones, 2015). A new online RN to BSN nursing program was developed to support the continuation of local Associate degree (ADN) prepared nurses in their professional education. A learner-centered approach requires nursing faculty to carefully identify appropriate teaching strategies to meet the learning needs of the Associate degree (ADN) prepared nurse. Associate degree prepared Registered Nurses bring basic nursing knowledge as well as a variety of clinical skills however, community health is not addressed (Thomas, 2016). The use of simulation and student outcomes are related (Tate, 2009) yet, research regarding the use of a virtual simulation environment has not been fully substantiated (Aebersold & Tschannen, 2014). Nursing students enrolled in an RN to BSN online nursing program have shopped around for the online nursing program that best fits their personal needs. The RN to BSN nursing student can be local and close by or as in many online nursing programs the students are scattered throughout the state as well as the nation which poses a challenge for nursing faculty to come up with creative learning opportunities. With the ever growing shortage of clinical sites, the search for alternative means and realistic learning opportunities are needed. One such option is the use of Virtual or 3 D simulation. Virtual simulation offers experiential learning and the opportunity to learn in a realistic environment. RN to BSN nursing students and faculty can access the simulated 3D environment at any time and from anywhere. Online nursing students and nursing faculty alike can interact, communicate and collaborate and at the same time, nursing faculty can review and keep track of the online nursing students' progress as well as their leadership skills (Breen, 2014).

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## PST1 - Poster Session 1

### Cultivating a Culture of Resilience: A Nursing Leadership Initiative

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#### Abstract

Nurse leaders and managers can use resilience as a theoretical framework in creating and planning staff development programs as the profession addresses nurses' satisfaction, engagement, adverse workplace environments, and recruitment and retention challenges.

The goals of this presentation are to: Describe resilience and its relationship to empowering nurses personally and professionally. Identify nurses' resilience and analyze ways to build resilience through targeted interventions and tools. Share research findings that have contributed to the development of a resilience building mobile application.

Resilience is a concept that has been applied to research and practice in nearly every possible area of life and academia from science to sociology, psychology, nursing and medicine. Nursing has been a focus for studies and interventions that foster resilience in the workplace. Once characteristics that exemplify resilience have been identified resilience can be learned or developed. Nursing literature has noted the impact of resilience in clinical settings correlating the level of professional competence (Gillespie, et al 2007) work engagement (Othman, et al, 2013; Jackson et al., 2007) and the benefit of resilience training programs to reduce PTSD in the workplace (Mealer, Jones, & Moss, 2012).

Responses from a recently conducted survey of professional nursing participants determined resilience score using the 14-item Resilience Scale, which has a reliability ranging from 0.84 to 0.94 alpha coefficients. Initial factor analysis indicates that "acceptance of self and life" and "personal competence" reflects the theoretical definition of resilience (Wagnild and Young, 1993). The scale's construct validity positively correlates with optimism, morale, self-efficacy, self-reported health, health promoting behaviors, forgiveness, self-esteem, sense of coherence, effective coping, and life-satisfaction. Inversely, the construct is related with depression, stress and anxiety, hopelessness, loneliness somatization, and healthcare visits.

Nursing management, leadership and educators can facilitate resilience in the workplace through strategies that create work-life balance assist in critical reflection to problem solve and build resolutions to help guide in future situations and use a shared or professional governance model. Active participation of nurses through mentorship workshops for critical thinking, mobile applications, debriefing, journaling, empowering staff and leaders that foster professional and caring environments contribute to building hardiness and aids in the development and strengthening of personal resilience.

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## PST1 - Poster Session 1

### Script Concordance Model and Think Aloud Approach to Facilitate Clinical Reasoning in Baccalaureate Nursing Students

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#### Abstract

**Summary:** Nurses are required to assess and interpret patient information to implement interventions that optimize patient outcomes (Institute of Medicine, 2003). This process of assessment, interpretation, intervention, and ultimately evaluation is guided by nurses' ability to identify salience. Salience has been described as the ability to recognize important areas of focus and change in a clinical situation (Benner, Sutphen, Leonard, & Day, 2010). The ability to interpret these assessments and plan interventions in the context of salience constitutes clinical reasoning (Levett-Jones, et al., 2010; Simmons, 2010). Effective clinical reasoning has been associated with improved patient outcomes (Liou, et al., 2015).

Healthcare professionals agree clinical reasoning is a complex process which requires specific knowledge and the ability to understand the clinical situation in order to act (Fournier, Demeester, & Charlin, 2008; Furze, Gale, Black, Cochran, & Jensen, 2015). Clinical situations often do not unfold in a clear cut linear fashion for which standard recipes for interventions can be applied. Human beings are complex and health and illness is influenced by intrinsic and extrinsic variables (Deschenes, Charlin, Gagnon, & Goudreau, 2011). Nurses must assess and consider these variables in a clinical situation, draw on evidence-based knowledge, identify salience, and then act. Clinical situations are dynamic hence, ongoing evaluation to alter interventions accordingly is also required (Charlin, Roy, Brailovsky, & Goulet, 2000).

In nursing education, opportunities for faculty to facilitate students' clinical reasoning exist in simulated and actual clinical settings and in the classroom. Acquisition of clinical reasoning is an ongoing process refined at each academic level (freshman, sophomore, junior, senior) and continues to develop over a lifetime of professional practice (Charlin, Roy, Brailovsky, & Goulet, 2000; Tanner, 2006). Faculty provide varied learning experiences that foster clinical reasoning in each of these settings (simulation, actual clinical, and classroom) and rigor increases as nursing students progress to each academic level.

Simulation is an active teaching strategy that immerses students in life-like clinical experiences with manikins or standardized patients (Jeffries, 2012). It has been reported that clinical reasoning is enhanced with simulation because it provides students with the opportunity to integrate theory and practice in a safe simulated clinical environment (National League for Nursing, 2015). Time spent by students in actual clinical settings such as hospitals and long-term care facilities also provide opportunities to foster clinical reasoning (Harmon & Thompson, 2015).

In the actual clinical setting, the Outcome Present State Test Model (OPT) has been used as a teaching tool to guide students through the clinical reasoning process. Students utilize the OPT to identify key issues related to the patient's health and illness state and formulate desired outcomes. Interventions are developed to achieve these desired outcomes. Over time with repeated patient encounters students utilizing OPT have been reported to improve their clinical reasoning skills (Bartlett, et al., 2008; Bland, et al., 2009; Kuiper, 2013).

It is in the classroom however, where students are often introduced to evidence-based knowledge and practices foundational to clinical reasoning later applied in simulated and actual clinical settings. Teaching strategies to facilitate clinical reasoning in the classroom include collaborative learning activities, focused reflection, concept mapping, case studies, and role playing. However, assessment of students' actual acquisition of clinical reasoning as a result of these teaching strategies is difficult to determine as reliable and valid tools are lacking (Dawson, Comer, Kossick, & Neubrandner, 2014; Deschenes, Charlin, Gagnon, & Goudreau, 2011).

Script Concordance Test (SCT) is an evaluation method to assess clinical reasoning under conditions of uncertainty (Charlin, Brailovsky, Leduc, & Blouin, 1998). It has been predominantly used in medical education but has demonstrated success in physical therapy, pharmacy, optometry, dentistry, and veterinary medicine (Dufour, et al., 2012; Faucher, Dufour-Guindon, Lapointe, Gagnon, & Charlin, 2016). There are only two reports of use of SCT in nursing (Dawson, Comer, Kossick, & Neubrandner, 2014; Deschenes, Charlin, Gagnon, & Goudreau, 2011).

SCT is based on script theory developed by two cognitive psychologists, Roger Shank and Robert Abelson (1977). Script theory posits higher level thinking skills originate from cognitive scripts, knowledge, and previous experiences (Shank & Abelson, 1977). According to script theory, individuals create mental scripts from pre-established knowledge and repeated past experiences which guide their actions (Dawson, Comer, Kosick, & Neubrandner, 2014; Deschenes, Charlin, Gagnon, & Goudreau, 2011; Shank & Abelson, 1977).

A SCT is a case-based written examination (Charlin, Roy, Brailovsky, & Goulet, 2000). A short clinical scenario is presented. For each scenario, there are three columns; (a) the **first** column is a possible plausible hypothesis based on the scenario, (b) the **second** column contains new information, and (c) the **third** column requires the student to select an option about the significance of the information presented in the second column in relation to the hypothesis. These options are presented on a five-point Likert scale (Wilson, Pike, & Humbert, 2014).

Script **Concordance** Test uses a "panel-based aggregate scoring method" (Gagnon, Lubarsky, Lambert, & Charlin, 2011, p. 601). Scores for each question on the SCT are based on the responses by a panel of experts. For each question, the answer most frequently selected by a panel of experts is designated as the modal answer and is assigned the highest score. Partial credit is assigned proportionally for other options selected by some of the expert panel (Lubarsky, Dory, Duggan, Gagnon, & Charlin, 2013). How closely students' answers match with those of the expert panel reflects **concordance** (Deschenes, Charlin, Gagnon, & Goudreau, 2011).

Although there are references in the literature that SCT has potential to be an effective teaching/learning tool, it has been predominately used for testing (Faucher, Dufour-Guindon, Lapointe, Gagnon, & Charlin, 2016). It has been suggested by adding the Think Aloud approach a richer understand of students' clinical reasoning may be ascertained (Power, Lemay, & Cook, 2017). In the Think Aloud approach students verbalize the thought process that led to their conclusion (Banning, 2010; Lee & Ryan-Wenger, 1997). Power, Lemay, & Cook (2017) applied the concept of the Think Aloud approach by having students write the rationale for answers selected for each SCT test item.

The purpose of this study is to determine the effectiveness of the Script Concordance Test method coupled with the Think Aloud approach as a teaching/learning strategy to facilitate clinical reasoning in first semester senior-level baccalaureate nursing students.

**Research Question:** Does use of the Script Concordance Test model in conjunction with the Think Aloud approach as a teaching/learning strategy facilitate clinical reasoning in first semester senior-level baccalaureate nursing students enrolled in a pediatric course?

What are first semester senior-level baccalaureate nursing students' perceptions of the Script Concordance Test model in conjunction with the Think Aloud approach as a teaching/learning strategy to facilitate clinical reasoning?

**Hypotheses:** Use of the Script Concordance Test model in conjunction with the Think Aloud approach as a teaching/learning strategy in first semester senior-level baccalaureate nursing students improves clinical reasoning as measured by the Script Concordance Test model.

**Methods:** This study is a quasi-experimental design which will be executed in the Fall 2017 and Spring 2018 semesters. The class activity for 7 weeks out of a 14-week semester will include use of the Script Concordance Test Model in conjunction with the Think Aloud approach as a teaching/learning strategy.

Students will be asked to complete a paper/pencil Script Concordance Test and provide written rationale for answers selected for each test item consistent with the Think Aloud approach. The test is not included in the course grade as it is being utilized as a teaching/learning strategy. After completing the test, class discussion regarding the content will ensue.

Data regarding students' perceptions of the Script Concordance Test model in conjunction with the Think Aloud approach as a teaching/learning strategy to facilitate clinical reasoning will be administered anonymously at the end of the semester using Qualtrics. Demographics are optional and will be requested anonymously as the last component of the survey using Qualtrics. Demographics will include age and gender.

In accordance with recommended guidelines for development of the Script Concordance Test (Lubarsky, Dory, Duggan, Gagnon, & Charlin, 2013) 10 expert pediatric nurses with > 3 years of experience will anonymously take the test in order for the Principle Investigator to develop scoring for each test question.

Data analysis will be based on aggregate scores over the 7-week period to determine if clinical reasoning has improved. Inductive thematic analysis of written response to each test question will be conducted.

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## PST1 - Poster Session 1

### Active Learning: A Concept Analysis

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#### Abstract

Active learning within nursing education is becoming increasingly important as leaders and accrediting bodies such as the Carnegie Foundation, Robert Wood Johnson Foundation, National League for Nursing, and American Association of Colleges of Nursing call on educators to include innovative pedagogy in their classrooms. The traditional classroom teaching method, also known as lecturing, is not the most effective teaching method with new generation learners (Kroning, 2014). Active learning is an umbrella term with numerous strategies. The most cited active learning strategy within the nursing discipline within the past five years is simulation. Page (1990) examined historical and contemporary perspectives of active learning and noted that while the names and labels of active learning have changed and evolved, the basic concept has remained the same throughout the twentieth century. However, there is no universal definition of the concept *active learning* as it applies to pedagogy. Therefore, the author conducted a concept analysis of the term *active learning* using the criteria delineated by Walker and Avant (2011).

The words *active* and *learning* in this two-word concept analysis were examined separately and in tandem. All uses of each term were considered for inclusion in the operational definition. However, active learning was explored in terms of teaching and learning in a formalized institutional setting to reach an operational definition for use in nursing education.

Following the method delineated by Walker and Avant (2011), the author identified defining attributes of the concept. Defining attributes of active learning include: student centered learning; teaching without the predominant use of lecture; and communicative dialogue to reveal active (psychological and or physical) thinking by the learner. The author also developed model, borderline, and contrary cases for the concept following criteria from Walker and Avant (2011).

Antecedents and consequences of the concept were identified separately pertaining to the teacher and the learner. Antecedents for the teacher include: preparation of active student-centered learning activity and understand role as facilitator of learning. Consequences for the teacher include: loss of control over the learning environment and satisfaction with student engagement in the learning process. Antecedents for the learner include: willingness to be an active participant in the learning process and direct his or her own learning. The learner must also understand their role as director of learning. Consequences for the learner include: stimulates critical thinking and improves knowledge retention.

The author identified empirical referents as a means of measuring the defining characteristics or attributes (Walker & Avant, 2011). Within the discipline of nursing education, there is a lack of rigorous, well-designed research on the use and effectiveness of active learning methods (Waltz, Jenkins, & Han, 2014). The author expanded the search for empirical referents outside the nursing discipline for a more comprehensive analysis of the concept. The existence of active learning can be demonstrated in multiple ways as evidenced by the various strategies such as simulation, gaming, case studies, and problem-based learning. However, it is imperative the student be an active participant in the learning process and direct his or her own learning. Active participation can be recognized by student engagement via communicative dialogue within any active learning *strategy*. Active learning can be further facilitated by the teacher through pre-class activities or in-class activities that encourage active thinking by the learner (Keegan et al., 2016; Prince, 2004).

Active learning can be recognized when teachers encourage and witness students engage in communicative dialogue, think out loud, or even physically work through psychomotor learning activities. Learning that is student-centered may be recognized through focus on the students' gaps in knowledge identified through Socratic questioning. Socratic questioning involves probing questions from the teacher with the goal of analyzing and recognizing an individual's thinking (Rowles & Russo, 2009). This in turn promotes active thinking.

The need for a shift in pedagogical practices from traditional lecture to active learning is not new to education. However, the nursing discipline has only recently begun to recognize and promote strategies for its use (Waltz et al., 2014). While general education literature has used the concept term as early as the 1700s, disparate evidence of concept utilization within nursing education still remains. Likewise, a universal definition for active learning has yet to be published for use across disciplines and in educational settings.

Active learning as an umbrella term includes multiple strategies. With the proliferation of emerging pedagogies, the concept will continue to evolve. This concept analysis demonstrated that active learning has specific defining attributes. While many active learning strategies may include one or more of these attributes, a true or model case of active learning must include all of the defining attributes.

The author suggests an operational definition for the concept to be used within nursing education as: teacher facilitated, student-centered learning that reveals psychological or physical thinking by the learner; teaching without the predominant use of lecture. Nurse educators and researchers can use this definition of the concept along with the antecedents and consequences to evaluate current practice. This definition may also be useful as educators work towards developing a more robust body of knowledge.

Leaders in nursing education have challenged educators over the past decade to implement active learning strategies into classrooms. It is imperative nurse educators begin to thoughtfully plan learning activities for didactic instruction to enhance student learning and critical thinking (Kroning, 2014). Similarly, Benner, Sutphen, Leonard, and Day (2010) called for a radical transformation of nursing education and noted the current approach (traditional lecture) is not the best approach to nursing education. Boyer (1990) noted that "great teachers . . . stimulate active, not passive learning" (p. 24). However, nursing education must begin to develop definitions of the concept *active learning* with the goal of theory development.

Ultimately, further research is needed to determine the concept's empirical referents within the nursing discipline. Active learning may appear different based on the nursing subject matter. To build upon this concept analysis, the examination of *thinking* in relation to *learning* would be useful based on the author's defining attributes of the concept. With further refinement of the concept, nurse theorists may begin to develop an active learning theory to guide nurse educators in the application of the concept. Further refinement of the concept's essence will aid in the advancement of the discipline of nursing education.

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## PST1 - Poster Session 1

### Developing Critical Thinkers Through the Use of A.V.I.D. Discussions

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#### Abstract

For schools of nursing a common essential outcome for their programs is the ability to develop critical thinkers. The need for critical thinkers in the current healthcare environment cannot be overstated (Kramer, 1993), with some identifying, the need being essential to decreasing errors of judgment that can lead to patient death (IOM, 2004). In 2015, the National League for Nursing (NLN) identified the technique of debriefing as a strategy that has the potential to foster critical reflection further asserting that critical reflection is central to being critical. In the 2015 call to action the NLN declared the need to integrate debriefing across nursing curriculum for its potential to transform nursing education. Prior to NLN's call to action the act of debriefing or engaging in critical reflection was predominantly used in simulation though clinical nurse educators would employ a type of debriefing strategy in their post-clinical discussions. Within the context of clinical learning, traditionally students and faculty engaged in face to face discussions with the intended outcome being that students engaged in critical reflection. The purpose of these post-clinical discussions was to permit students to reflect upon their day engaging in an exchange of ideas between themselves and faculty (Gaberson & Oermann, 2010). The concern for nurse educators however are issues of student fatigue, time constraints at end of day, lack of available clinical space to conduct face to face debriefings, and student's own need for more time to process their clinical experience as barriers to full student participation in the reflection process (Neumeier & Small, 2014). The purpose of this study was to explore the use of active, varied, interesting, and open-ended discussion (A.V.I.D) questions (Pollack, 2017) as a debriefing method in an online environment in order to improve the critical reflection process and develop the skills and habits of the mind of critical thinking as defined by Scheffer and Rubenfeld (2000). By implementing post-clinical discussions online (Mahoney, Marfurt, daCunha, & Engebretson, 2005; Moran, 2005), it was anticipated that the identified concerns of a more traditional post-clinical format would disappear leaving room for improved student engagement in the debriefing process thus leading to increased critical reflection and critical thinking. Findings indicated that while students were satisfied with an online format, their ability to demonstrate increased skills or habits of the mind related to critical thinking remained essentially unchanged. Further research needs to be implemented using the A.V.I.D method with increased attention to integrating the skills and habits of the mind of critical thinking when developing discussion questions in order to more fully evaluate the method's ability to provide a meaningful learning experience for the student.

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## PST1 - Poster Session 1

### An Integrative Approach to the Implementation of a Veteran to BSN Pathway

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#### Abstract

The Veteran to BSN Pathway targets barriers that prevent veterans from transitioning into the nursing profession and accessing education. This includes: developing programs that target the unique needs of veterans; exploring innovative educational models to award academic credit for prior military health career experiences and training; improving employment opportunities for veterans through high demand careers; and addressing the growing national demand for BSN prepared registered nurses.

It has been estimated that over the next five years, approximately 1.5 million service members will separate from the military and will be returning to college and looking for employment (Snyder, Wick, Skillman, & Frogner, 2016). Moreover, it has been suggested that one of the top degrees sought out by veterans is a nursing degree. This is due to interest in the healthcare field and the overall demand for nurses within the job market (<http://www.bestcollegesonline.org/top-degrees-for-veterans/>). After notification of award, the necessary approvals needed to be obtained, as well as the complete development of the VBSN infrastructure that included: approval by the State Board of Nursing, the admission process, the awarding of credits, the development of curriculum to support the VBSN pathway, and the development of collaborations and partnerships with internal and external constituents to ensure sustainability.

The VBSN pathway developed processes that allows qualified veterans the opportunity to test out of designated courses based on demonstration of course competencies. These courses include: fundamentals of nursing didactic, pharmacology, and health assessment. An additional component of this grant was to provide faculty and staff with workshops that addressed the physical, emotional, and environmental issues affecting veterans in order to minimize barriers to their transition into the nursing profession. The goal of these workshops were to facilitate the development of a culture of respect for veterans returning to the University setting. Overall, the VBSN pathway has been successful in reducing barriers and providing needed supports to ensure the success of the veterans when returning for their Bachelor of Science nursing degree.

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## PST1 - Poster Session 1

### Procedure for Cannulating a Dialysis Access: Using the ASSURE Model and Gagne's Events of Instructions

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#### Abstract

Little evidence exists to guide dialysis nurse educators in the selection of the most appropriate type of instructional technologies to use when teaching hemodialysis staff cannulation skills, yet there is a need for staff to demonstrate safe performance of skills prior to performing them in hemodialysis settings. The cannulation of a dialysis access is a required mastery skill in the hemodialysis setting, because dialysis accesses is the mean by which hemodialysis treatments are accomplished. Dialysis accesses allows hemodialysis staff the ability to access the patient's blood. Injuries and infections of dialysis accesses are extremely common therefore, it is vital that dialysis nurse educators identify effective and efficient teaching methods to be used in teaching cannulation skills. The learning activities are designed to facilitate discussion, demonstration, problem solving, role playing, and critical thinking among the learners.

In order for learners to move from a lower level order of thinking to a higher-level order of thinking successfully, learners must follow an orderly systematic approach. The ASSURE model is a six-step instructional model that incorporates Roberts Gagne's 9 Events of instruction when presenting or delivering any form of educational content to novice or expert learners. The ASSURE model and Robert Gagne's 9 Events of Instruction design provides a systematic way to present content. The ASSURE model was utilized to effectively integrate the use of technology and media to enhance students learning. The ASSURE model is an effective teaching model that could be applied within the core curriculum for nursing staff. The ASSURE model will allow nurse educators to conduct detailed assessments staffs' ability to perform cannulation techniques safely and correctly, and organized their thinking processes. In this article, I will discuss the basic principles of the ASSURE model and Gagne's 9 Events of Instruction and its value when teaching the procedure for cannulating a vascular access using the ASSURE model and Robert Gagne's 9 events of instruction.

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## PST1 - Poster Session 1

### The Effect of Virtual Clinical Simulation Debriefing on Clinical Decision Making

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#### Abstract

**Background/Significance:** New graduate nurses providing competent and safe patient care, yet recent evidence supports that such graduates with even up to three years of clinical experience are unprepared to think like nurses. In general, simulation-based education has emerged as an innovative method of providing nursing students with opportunities to acquire essential knowledge, skills, and attitudes which are necessary for the development of clinical judgment competence. There is an increasing amount of evidence that demonstrates the relationship between simulation debriefing and improved nursing student clinical (Sabei & Lasater, 2016).

Specifically, virtual simulation clinical education has emerged as an innovative strategy that has the potential to improve clinical reasoning by providing experiential learning in a virtual. However, such studies of virtual simulation often do not mention or include a debriefing session as a part of its intervention. The literature finds that there is a widespread lack of consistent methodological approaches for debriefing practice and unclear descriptions of debriefing in simulation-based education studies completed particularly on virtual clinical simulation, discussions of debriefing are entirely absent (National League of Nursing, 2015).

**Scope:** This study will expound on previous research of the use of debriefing during simulation. It will add to the literature by explaining the effect of debriefing on virtual simulation learning outcomes, specifically clinical decision making.

**Research Question and Hypothesis:** The research question this study will seek to answer is: How does the presence or absence of debriefing a virtual simulation influence the clinical decision making scores of undergraduate nursing students?

It is hypothesized that undergraduate nursing students who attend a debriefing session following virtual simulation will have higher clinical decision making scores than those who do not. The Health Sciences Reasoning Test (HRST) will be used to operationalize the dependent variable of clinical decision making.

**Purpose:** The objective of this study is to test David Kolb's (1984) theory of experiential learning that learner reflection through debriefing is related to improved clinical decision making in undergraduate nursing students who utilize virtual clinical simulation as a learning strategy.

**Method/Outcome Measures:** The researcher has selected a true experimental design. Subjects will be undergraduate nursing students who are enrolled in a medical surgical course with a required virtual clinical simulation assignment component. Once subjects are recruited, half of a single semester's medical-surgical courses that include participants of equivalent numbers will be deemed either the experimental group (with an assigned debriefing session) or control group (without an assigned debriefing session) by using a random number generator. Both groups will be administered the HRST before being assigned virtual clinical simulation assignments. However, only the experimental group will receive the treatment of a debriefing session.

The HSRT overall reasoning skills score focuses on the strengths or weaknesses of the student's ability to make reflective, reasoned judgments about what to believe or what to do. The overall internal consistency of the tool is reported to be 0.81. The overall reliability coefficient is reportedly 0.81 (Insight Assessment, 2015).

**Findings:** This research study is currently in progress and is anticipated to be completed by June of 2018.

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## PST1 - Poster Session 1

### The Use of Collaborative Testing to Promote Nursing Students Team Decision Making and Success

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#### Abstract

**Introduction:** Today's learner is one that expects active learning activities that have a meaningful purpose and contribute to their educational goals. The previous educational experience for many of today's learners focused on small group work with active teambuilding activities (Duane & Satre, 2014). Active learning is a strategy that is student-centered and student driven with faculty facilitation. Active learning strategies are shown to increase the learner's comprehension and retention of complex concepts (Rivaz, Momennasab & Shokrollati, 2015; Duane & Satre, 2014; Eastridge, 2014).

The nursing profession requires a high degree of collaboration between nurses and amongst other healthcare discipline members (Duan & Satre, 2014). Active learning strategies within a nursing curriculum are an essential strategy to promote the nursing student's future ability to successfully assimilate into the profession, to develop critical thinking skills, and to learn effective communication skills with the healthcare team. Collaborative testing is an active learning strategy supported in the literature with promoting learning, critical thinking skills, and conflict resolution skills (Cortright, Collins, Rodenbauh, & DiCarlo, 2013; Centrella-Nigro, 2012).

Collaborative testing is an active learning strategy which requires the student to actively share perspectives and negotiate towards a shared decision. Collaborative testing is defined as a small group of students who work together in completing a course test (Eastridge, 2014). Students who participate in collaborative testing have reported increased confidence with group decision making (Rivaz et al, 2015; Eastridge, 2014; Duane & Satre, 2014; Parsons & Teel, 2013). Student course satisfaction was also found to be significantly increased when collaborative testing is used as a learning strategy (Centralla-Nigro, 2012).

**Body:** One concern expressed by nursing faculty is collaborative testing resulting in grade inflation which may negatively impact outcomes for a nursing program (Duane & Satre, 2014). While the literature review supports the value collaborative testing offers to learning, the impact on student program retention in a nursing educational program and nursing program outcomes for pass rate on the National Counsel Licensure Exam for Registered Nurses (NCLEX-RN) is limited. The purpose of this retrospective study is to identify the impact collaborative testing has on retaining a nursing student in an educational program. A secondary aim is to determine if those nursing students retained due to collaborative testing points are successful on the NCLEX-RN on the first attempt. The following research questions guided this two-year retrospective study:

1. Do students who pass an individual nursing course due to collaborative testing points have the same or similar graduation rate as nursing students who passed an individual nursing course without collaborative testing points?
2. Do students who pass an individual nursing course due to collaborative testing points have the same or similar first time NCLEX- RN pass rate as nursing students who passed all courses without collaborative testing points?

This retrospective study reviewed final course grades books that offered collaborative testing for the calendar years of 2010 and 2011. The graduation status and NCLEX-RN data is known for all nursing students during the study frame with a total of 266 nursing student educational records reviewed. During the retrospective analysis, 16 nursing students passed a nursing course due to the addition of collaborative testing points to their individual test grades. The impact of collaborative testing resulted in one nursing student passing two nursing courses due to the addition of collaborative testing points. A total of 14 nursing students of the 16 nursing students who passed a nursing course due to collaborative testing successfully graduated from the nursing program.

The nursing program on-time graduation rate is determined if the nursing student admitted to the nursing program completes the program within 3 years (150% time frame). The overall nursing program on-time graduation rate for 2010 and 2011 was 81% and 85% respectively. Nursing students who were retained due to collaborative testing have a similar on-time graduation rate of 81% with 13 of the 16 students graduating within the 150% time frame. One nursing student retained due to collaborative testing did graduate from the nursing program but exceeded the 150% timeframe.

The overall NCLEX-RN first time pass rate for the nursing program for 2010 and 2011 was 97% for both years. The first time NCLEX-RN pass rate for the 14 nursing students who were retained in the nursing program due to collaborative testing is 93% with 13 nursing students passing the NCLEX-RN exam on the first attempt. The nursing student who was not successful on the first attempt delayed taking the NCLEX-RN exam more than six months from the time of graduation. The delay in taking the NCLEX-RN exam for the first time is a confounding factor to consider for the nursing student who was not successful.

**Conclusion:** While this study found that 16 nursing students passed a course due to the points received from collaborative testing, the terminal nursing program outcomes for graduation rate and first time NCLEX-RN pass rates for those retained due to collaborative testing points are comparable to the overall nursing program outcomes. Thus, the collaborative testing points did not adversely impact nursing program outcomes for graduation rate and NCLEX-RN pass rates. Additionally, the study findings support that nursing students were able to make better collaborative team decisions versus independent decisions based upon the mean tests scores for the collaborative tests were statistically increased with all 76 tests reviewed in comparison to the individual test mean scores.

Collaborative testing can be applied differently within a nursing curriculum. Nursing faculty should consider how to apply collaborative testing as a learning strategy that nursing students and nursing faculty find meaningful and purposeful. Ongoing data collection regarding the impact collaborative testing has on nursing student outcomes should continue as a part of the nursing program regular review for curriculum currency and curriculum rigor. Overall, this study found collaborative testing to be an effective learning strategy to promote nursing student learning needs and nursing program outcomes.

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## PST1 - Poster Session 1

### Low Literacy Breast Cancer Educational Module: A Collaborative Project

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#### Abstract

**Background:** The purpose of the study was to create low literacy educational materials for breast cancer patients on the topic of cancer staging. Low health literacy is an epidemic within the United States with only 12% of American's considered proficient in health literacy. After reviewing current literature concerning health literacy, a low literacy script was written and an educational video was created with the help of three senior Associate Degree Nursing students from a local community college. Healthcare providers were asked to review the video and take a short qualtrics survey supplying their opinion on the video's quality.

**Methods:** This project used data from the qualtrics survey to determine the usefulness of the educational video on cancer staging. The survey included a variety of questions and explored the relevance of the video. Participants were healthcare providers and invited via email with links to the video and the qualtrics survey provided. All data was collected anonymously. Dorothea Orem's Self Care Deficit Theory was used as the Theoretical framework for this study. The educational video was created with the concept of self care and the patient in mind. The video script was based on the American Cancer Society's information but written at a fourth grade reading level to accommodate patients with low health literacy. Literacy tools including the Flesch Reading Ease score, the Gunning Fog, the SMOG index, and the Flesch-Kincaid Grade level were used to determine reading level of the script. Senior Associate Degree of Nursing students assisted in the making of the video. A role play exercise was used in the video to enhance learning. Filming took place in the Nursing Simulation Lab.

**Results:** The creation of an educational video with a low literacy script for teaching breast cancer patients about the staging process was the result of this study. Limited feedback was received, however the video was scored as high in quality and of appropriate length. Even though the information was seen as relevant, results suggested it was unlikely the video would be shared with colleagues. Further feedback is needed and should be acquired with a larger population pool. Collaboration, a Quality and Safety Education for Nurses competency was demonstrated through professional modeling and mentoring of students.

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## PST1 - Poster Session 1

### Reflection of Professional Nursing Growth Through E-Portfolio

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#### Abstract

With a current curriculum update, the faculty at a Midwestern Bachelor's of Nursing Program requested a professional development assessment to provide students the opportunity to reflect upon their nursing program growth and development. The purpose of the e-portfolio is to provide a vehicle for compilation of the students' best work and reflection throughout their nursing education.

Portfolios in higher education have been around for decades. Portfolios are an efficient way for students to collect their highest quality work for display and presentation. With technology advancement, moving the portfolio to an electronic means has provided ease and accessibility. E-portfolios in nursing provides a framework for students' reflection and self-assessment (Andrews & Cole, 2015). An e-portfolio is a transferable product students can use during their nursing program and further in their nursing careers. Due to the ease of internet accessibility, students can use their finalized e-portfolio for future professional nursing applications and professional advancement. Use of the e-portfolio in the BSN nursing program adds to the students' development of technology skills and creativity, while creating a useful product for future use.

The student's e-portfolio is developed throughout the semester in the Professional Development 2 course at the third semester of the BSN program. Students are shown several types of e-portfolio systems and are able to choose the software that fits best with their technology abilities. Within the e-portfolio, students create a professional nursing resume and choose several items from their previous nursing program semesters to display. Students write self-assessment reflections about each of the artifacts, including an introduction and a pledge to nursing summary. As the students write reflections of their experiences, they are encouraged to contemplate nursing program outcomes, concepts, and QSEN competencies. As a building assignment, students submit their individual item reflections to the course management system for peer review. Self-assessment, student reflection, and peer evaluation are effective means of feedback with technology (Bonnell & Smith, 2010). Students present their final product in an oral presentation in front of the class at the end of the course. The oral presentation allows the students to share their stories of significant events in their program to date. Students are able to reflect upon and share their successes through the nursing program. Observation of others' presentations builds development of their own oral presentation ability (DeGrez, Valcke, & Roozen, 2014). Building self-confidence through presentations allows the student to think optimistically and persevere through difficulties (Lundberg, 2008).

This poster presentation provides nurse educators worldwide an alternative assessment of students' growth throughout their program. E-portfolio use provides educators a route for program outcome assessment. The e-portfolio documents the students' journey through the curriculum and whether program outcomes were met (Ryan, 2011). In the coming academic year, students' reactions to the e-portfolio assignment will be collected through an IRB approved survey. Adjustments to the e-portfolio process will be made based on survey analysis. The e-portfolio assignment serves as a tool to collect self-reflection and future goals. The value of the e-portfolio lies in the nature of the process rather than the product (Webb et al., 2003). E-portfolio development contributes to students' personal and professional growth through critical analysis of the contents.

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## PST1 - Poster Session 1

### Emotional Strain: A Concept Analysis for Nursing

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#### Abstract

The term emotional strain is frequently referenced in the literature as experienced by employees in the context of job demands, caregivers when providing for loved ones with physical illness, and individuals undergoing trauma such as infertility and natural disasters. Although used in healthcare literature, the concept of emotional strain is seldom defined as a distinct concept and often embedded in the context of stress and strain. This concept has not been clearly articulated, is ill-defined, and remains unclear. The Cumulative Index of Nursing and Allied Health Literature (CINAHL) Complete, ProQuest Central, PubMed, Business Source Elite, and PsycINFO were accessed, and articles from the English-language literature published from 1980 through 2016 were obtained. No concept analyses of emotional strain in nursing were found. Key words included emotional strain, strain, nursing, concept analysis, and stress. Inclusion of articles in the review was based on relevancy of content regarding background, definition, use, defining attributes, and consequences of emotional strain. For this concept analysis, a total of 48 articles were included.

Emotional strain is defined and used within the context of numerous disciplines, with business, psychology, education, and nursing as the major areas researched. Nursing is a stressful profession with emotional strain an increasing problem among professional nurses. In nursing education, Arieli (2013) identified emotional challenges such as patient suffering and death, and a lack of preparation for shocking patient situations, when studying nursing student experiences in clinical placements. Arieli (2013) highlighted difficulty in balancing home and college demands, time pressure, financial concerns, feelings of distance from faculty and staff, and feelings of unpreparedness and incompetence as nursing student stress factors. Additionally, Arieli (2013) affirmed that students are at risk for developing emotional strains such as anger, ambivalence, tension, disgust, frustration, fear, and discomfort. The lack of emotional coping skills in students was found to exacerbate emotional strain.

In nursing practice, continuous time pressure, work overload, mental and emotional load, stressors related to death of patients, staffing, sub-optimal relationships with peers, conflicts with supervisory and medical staff, difficulties with patients and families, and bullying were reported to be frequent sources of emotional strain (Gevers, Van Erven, de Jonge, Maas, & de Jong, 2010; Potash, Ho, Chan, Wang, & Cheng, 2014). Continuous stress at work, lack of autonomy, and high expectations of oneself are causing nurses emotional strain (Rauschenbach & Hertel, 2011).

An emotionally demanding situation may cause a nurse to have a low stress tolerance to subsequent stressful situations. Emotional reactions such as irritation, tension, anger, fear, anxiety, and apathy were measures of acute emotional strain in nursing (Potter et al., 2010; Rauschenbach & Hertel, 2011). In nursing professionals, emotional strain mediates maladaptive consequences to health and well-being, potentially causing detachment, disengagement, absenteeism, somatic illness, coronary artery disease, alcoholism, burnout, abandonment of the profession, and suicide attempts (Gevers et al., 2010; Potter et al., 2010; Rauschenbach & Hertel, 2011).

For the most part, nurses represent a workforce with high motivation and dedication. However, such fine attributes cannot be expected to offset the erosive effects of enduring, indefinite work stress. Exposure to acute critical incidents is anticipated as a core requirement of the nursing profession; however, experiencing the chronically draining nature of emotional demands and other organizational factors is not (Tuckey & Hayward, 2011). It is crucial, in these days of increasing patient acuity, nursing shortages, declining enrollments in schools of nursing, and an aging nurse population, to recognize the impact of emotional strain on nurses. Few nursing degree programs include stress management courses, which have the potential to affect long-term career retention. The provision of effective stress management training for undergraduate nursing students in managing the stresses they are likely to encounter could be an important requirement for avoiding long-term maladaptive effects of emotional strain in nursing (Holstad, Korek, Rigotti, & Mohr, 2014; van den Tooren, de Jonge, & Dormann, 2012). Furthermore, clinical instructors need to be educated about the importance of preparing students for stressful and shocking patient experiences (Arieli, 2013).

The author reports an examination of the concept of emotional strain using Walker and Avant's (2011) eight step method of analysis. Defining attributes, antecedents, and consequences of emotional strain are proposed based on a comprehensive review of multi-disciplinary perspectives. This analysis adopts a dynamic definition of emotional strain that may serve to encourage communication, promote reflection, and enhance concept understanding. Emotional strain in nursing needs to be recognized as a key factor in the delivery of safe patient care. The definition contributes significantly to the development of nursing knowledge and provides direction for future nursing research, as well as enhances efforts to serve nurses and students affected by emotional strain.

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## PST1 - Poster Session 1

### A Pilot Study of Student Nurses' Self-Efficacy in Performing Venipuncture

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#### Abstract

Phlebotomy training is currently not included in undergraduate nursing programs in Long Island, New York. After graduating, nurses are often expected to perform venipuncture on patients in the field. Without adequate clinical practice, there is potential for phlebotomy-related complications such as inappropriate sample collection, self-inflicted injuries, and undue harm to patients. The level of self-efficacy correlates with a student's perception of how capable he or she is in accomplishing a task. Individuals with increased self-efficacy are more likely to succeed in the field. In this study, undergraduate nursing students from a local Long Island college were separated into two groups using random stratified sampling. This sampling method ensured an equal number of sophomore, junior, and senior students in each group. The activity was developed to determine if a hands-on phlebotomy training seminar would improve phlebotomy self-efficacy. The intervention group received a 3-hour seminar that included a lecture and hands-on learning component, prior to practicing venipuncture on an artificial arm. The comparison group were only able to view a brief demonstration of venipuncture on an artificial arm. Both groups were given the opportunity to perform phlebotomy on the artificial arm. After the activity, the students completed a Phlebotomy Self-Efficacy Scale (PSES). The scores of the PSES from the two groups of students were compared. There was a significant difference in PSES scores between the comparison group and the intervention group. The intervention group, who attended the full 3-hour hands-on seminar, had higher self-efficacy scores than those in the comparison group, who did not have the full training. These findings support the inclusion of a hands-on phlebotomy training to improve levels of self-efficacy in nursing students. Academic grade level, prior employment in the medical field, and clinical hours were also compared to the PSES scores. There were no significant findings in comparing these factors to the scores in either group separately, or combined. This was likely due to the fact that regardless of academic year, prior employment, or number of clinical hours, the students were still not being exposed to phlebotomy. Therefore, the level of self-efficacy was not affected by any one of these factors. This study highlights a gap in the undergraduate nursing curricula. Any hands-on clinical experiences that will improve self-efficacy, and is practiced in the field of nursing, should be incorporated into nursing curricula for the benefit of all patients.

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## PST1 - Poster Session 1

### Using Simulation Technology to Validate Competency

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#### Abstract

**Background:** The Institute of Medicine, 2010 report recommends that nurses continue their education with ongoing competency assessment and validation in order to ensure safe quality care in a rapidly changing and diverse healthcare environment. Historically nursing competency has been measured by annual skills fair focused on evaluating clinical skills, not abilities or understanding of the science behind the skills. Competency is defined as not only capabilities, but also the achievement of desired outcomes, with measurements reflecting nursing abilities beyond technical skills. Simulation is embraced as a component of continuing education and an effective means of systematically validating competencies in a controlled environment.

**State of the Science:** Human Patient Simulation provides the opportunity for participants to react to high risk situations without any risk to patient safety. The use of a validated rubric with established inter-rater reliability and simulation is increasing being used by healthcare organizations for validating nurses competency in the collection and interpretation of data, clinical judgement, clinical reasoning, and communication which are essential to patient safety.

**Statement of Purpose:** Conduct competency assessment within a high fidelity human simulated environment for the nurses at a 25 bed critical access medical center, using a validated and reliable measurement tool. **Informatics**

**Solution:** **Human Patient Simulation is widely used in nursing academia, and provides an effective means of systematically validating competencies in a controlled environment.**

Methods and Procedure:

**Step 1:** A needs assessment tool will be used to identify competency needs.

**Step 2:** Development of simulation scenario(s) by educators with expertise in simulation scenario development and adult medical surgical nursing. The scenarios will include identified skills while allowing for assessment of patient, interpreting of patient data and managing the patient. The scenario will include multiple mini-scenarios which will allow for the staff to progress in meeting the complexity of the competencies being measured. The simulation scenario content will be assessed for clarity and validity by a panel of experts who are knowledgeable in adult medical surgical nursing for more than two years.

**Step 3:** pilot testing of scenario will be performed with a medical surgical nurses who are not participating in the study, in order to ascertain construct validity. Efficiency measure will be established by determining the amount of time required to complete simulation scenario; which will be used to determine the time that will be required by each participant to complete the simulated activity.

**Step 4:** The Creighton Competency Evaluation Instrument (C-CEI<sup>®</sup>) will be used to assess participants' response. C-CEI is a validated quantitative evaluation tool used to evaluate participants' performance in a clinical simulated environment; and focuses on 23 general nursing behaviors divided into four categories: assessment, communication, clinical judgement, and patient safety. A panel of nurse educators will use the C-CEI to determine what is expected as performance criteria for each of the 23 general behaviors based on the simulation scenario, using the C-CEI discussion worksheet provided by the creators of the tool. A consensus will be reached on the required passing score used to determine competency.

**Step 5:** The clinical educators who will serve as validators will receive online training for using the C-CEI tool from the Creighton College of Nursing website on how to use the tool. Inter-reliability will be achieved by having the validators watch two simulation exercise videos: one with no error in performance and the other with performance errors. Inter-rater reliability will be assessed using the Kappa statistic and percentage agreement among raters with an acceptable level of agreement set at 80%.

**Step 6:** Approximately one month prior to the competency assessment scheduled events, participants will be notified of the schedule (Jones, Carson, and Mancini, 2002). On the day of the event, participants will be given an orientation to the simulation room, the equipment, and the high fidelity patient simulator. Trained instructors will conduct the simulation by following strict guidelines for sequence of events and responses. Each participant will be given the same time frame to accomplish as many steps as possible. The participants will be informed that they will have the defined time and instructed to complete as much of the care of the patient as possible. The validator will independently score each participant. Debriefing will be conducted as an opportunity for participants to reflect on actions and take corrective on any key element missed during the simulation exercise.

**Step 7:** Statistical analysis will be conducted on the data to evaluate the effectiveness of using simulation to measure the nurses level of competency. The participants' feedback of their satisfaction and perception of the method will also be evaluated using a survey questionnaire. This survey questionnaire is administered annually to assess staff's satisfaction with the competency assessment process and methods. The survey questionnaire has no established validity and reliability scores, thus results from the survey questionnaire will not form a part of the publication, but as a pilot testing for the tool to establish content and validity.

SWOT Analysis of Use of Simulation Technology for Competency Assessment.

As simulation becomes a viable and desirable option in the evaluation of dimensions of competencies such as critical thinking, interpersonal skills and technical skills, the purpose of this paper is to critically analyze the strengths, weaknesses, opportunities and treats to using simulation technology for evaluation of clinical competency.

Strengths

1. The literature is robust in reporting positive faculty and student perspectives related to implementation of simulation and its impact on outcomes in nursing education.

2. There are published simulation scenario and evaluation tools developed and designed to require the nurse to demonstrate critical and reflective skills.
3. Simulated experience for continued competency assessment which resembles an actual event that requires the practitioner to make critical decisions while demonstrating discipline specific competencies without jeopardizing patient safety.
4. Another benefit of using simulation is that the exercise can be videotaped, allowing multiple evaluators the opportunity to analyze the practitioner's proficiency
5. Debriefing as part of simulation exercises may offer the opportunity for valuable reflective learning and clarification of content and concepts provided during the simulation scenario.

#### Weaknesses

1. Lack of research to support strong simulation evaluation rubric measurements to ensure reliability and validity of simulation evaluation tools. Simulation evaluation tools have been studied in a controlled simulation environment, however no published study of a larger random control study to test for validity and inter-rater reliability.
2. Simulation is also not standard across nursing programs and tools developed cannot capture completely the effectiveness of simulation when it is measuring differing variations of implementation of simulation.
3. The cost and time commitments in the development of scoring methods, the selection and design of simulation experiences.
4. Simulation does not completely capture reality; thus the need to validate if proficiencies demonstrated in the simulated environment are, in fact, present in the patient care setting.

#### Opportunity

1. If simulation scenarios were standardized in nursing programs, it would be a platform for more standardized studies and measurement tools for evaluation
2. The use of standardize simulation scenarios for evaluation research exploits the strength of having a consistent subject for observers to evaluate, which will provide control over source of variability between what is evaluated by each observer
3. **3.** Research is needed to identify characteristics of health professionals who are at higher risk for failing to demonstrate ongoing clinical competency

#### Threats to Implementation

1. **1.** Cost and time commitment of the endeavor of the development and testing of simulation scenarios; training and establishing inter-rater reliability of evaluation tool
2. **2.** Identifying and recruiting educators with experience in developing simulation scenarios as the design of the scenario will require participant to demonstrate critical and reflective thinking through evaluation, communication, interdisciplinary collaboration, and skill performance.

#### Ethical Consideration:

Participants will be informed of purpose of project.

- Fidelity maintained by using validators not assigned to facility.
- Remediation will be provided, and outcome not tied to work performance

**Conclusion:** Effective competency validation method requires a dynamic process dependent of the skills or behavior to be assessed, or the practice setting, and the expertise of the staff member. High fidelity human simulators and assessment rubrics have demonstrated efficacy in assessing nurses' ability to conduct patient assessment, clinical judgment, clinical reasoning, communication and patient safety.

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## PST1 - Poster Session 1

### Exploring the Writing Perceptions of Former Baccalaureate Nursing Students

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#### Abstract

A student's ability to learn how to communicate through writing is crucial in nursing, and, furthermore, it is important that students understand how to write effectively in the discipline of nursing in order to properly document patient care, create or revise policies, design educational materials, and/or publish guidelines or research. Nursing faculty often find students ill-prepared to write clearly and effectively. While the writings on students' academic performance in a nursing program are considerable, the literature on their perceptions of writing in the program is limited. Perception relates to the students' opinions on the topic based on their experiences or prior knowledge. This study explored former students' perceptions of writing in the discipline of nursing and their experiences writing in nursing practice upon graduation.

The purpose of this phenomenological study was to explore baccalaureate students' perceptions of writing in the discipline of nursing. The study also explored baccalaureate nursing graduates' experiences with writing as practicing nurses. Furthermore, the study examined the influence of nursing curriculum and nursing instruction on students' perceptions of writing. The phenomenon being studied was the writing experiences of nursing graduates of a university on the Eastern Shore of Maryland who are currently in nursing practice. After data were collected by way of questionnaires, focus groups, and open-ended questions, and transcribed and analyzed, five themes emerged from the findings: preparedness, prioritization, support, expectations, and functionality. These themes were supported and, at times, contradicted by the literature applicable to this topic. Additionally, these themes were guided and supported by the conceptual framework of the study, which contained the three theories: adult learning theory, transformational learning theory, and self-perception theory. The findings of this study hold implications for both nursing education and nursing practice. Lastly, future studies related to this topic should be generated based upon the limitations of this study and areas for further research.

In conclusion, the findings of this study may offer support to instructors in nursing by offering them some insight into the students' perceptions of writing in order to address them properly. Certain perceptions may alter students' academic performance in practicing nursing and affect the ways in which instructors need to teach. As this study and the literature suggests, written communication skills are important for nursing practice, and, through researching the lived writing experiences of these participants, more light has been shed on the role writing plays in the discipline of nursing as well as the perceptions of those holding the pen.

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## PST1 - Poster Session 1

### The Relationship Between Nursing Student Test-Taking Motivation and the Exit Examination Score

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#### Abstract

A primary objective of nursing programs includes nursing student first-time success on the NCLEX-RN®. As the nursing shortage continues, it is essential to have qualified nursing graduates pass the NCLEX-RN®. One approach nursing programs have chosen to assist with identifying nursing students' probability of success on the NCLEX-RN® includes the administration of an exit examination. This exit examination which is part of a standardized comprehensive assessment and review program, is an examination that mimics the NCLEX-RN® blueprint. Although this examination is predictive of NCLEX-RN® probability of success, it does not identify whether nursing students were motivated to do well on this test. Furthermore, no studies have been conducted to examine if nursing students were motivated while taking this examination. Studies reveal that test-taking motivation has a role in test performance. When higher levels of test-taking motivation were identified, higher scores on standardized examinations were more likely to occur (Cole & Bergin, 2005; Liu, Bridgeman, & Adler, 2012; Tella, 2007; Wise & De Mars, 2005). Thus, this correlational study investigated if a relationship between nursing students' test-taking motivation and exit examination score exists.

A quantitative, descriptive correlational design was used in four nursing programs to assess nursing students' test-taking motivation when taking the exit examination. This study used a 10-item questionnaire to examine the motivational concepts of effort and importance on the exit examination. Data were collected from four cohorts of nursing students required to take an exit examination at the end of their nursing programs (n=150). The numerical data were analyzed using descriptive statistical analysis.

Using a Likert scale ranging from strongly disagree (1) and strongly agree (5), the study revealed that a moderate correlation existed between nursing students' Total Motivation Score and exit examination score ( $r=.311$ ,  $n=150$ ,  $p<.001$ ). Further statistical analysis revealed that nursing students' perceived effort on the exit examination moderately correlated with higher exit examination scores ( $r=.350$ ,  $n=150$ ,  $p<.001$ ). A small correlation was revealed between nursing students' perception of the importance of the exit examination and their exit examination score ( $r=.198$ ,  $n=150$ ,  $p=.015$ ).

The study's findings emphasize the role that test-taking motivation plays in identifying preparedness for the NCLEX-RN®. The implications of this study may be used by nurse educators when determining whether a student should be encouraged to complete remediation before taking the NCLEX-RN®. Future studies should examine specific motivational factors that influence test-taking motivation in nursing students.

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## PST1 - Poster Session 1

### AEDs in Faith-Based Communities

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#### Abstract

Early defibrillation by using an automated external defibrillator (AED) improves patient outcomes for persons experiencing a sudden cardiac event in the community setting. The purpose of this project was to work with the faith community's safety committee to plan, implement, and evaluate education on the use and maintenance of the AED in the faith community setting. The long-term goal of this project was to promote safety for individuals attending church functions who might experience a sudden cardiac event. Kotter's eight steps to lead change along with the American Heart Association's (AHA) AED Implementing an AED Program booklet provided the framework to plan and implement a maintainable AED program in a faith-based community. The faith community's safety committee agreed to oversee the AED education and maintenance project. Ongoing meetings with the safety committee chair and other faith community members provided a way to get input about how to implement change in the current faith community practice regarding the AED. The safety committee agreed to support this project by participating in education and making policy updates to the AED maintenance plan to require monthly checks of the equipment using a checklist recommended by the AHA. The safety committee communicated with church leaders to gain support for obtaining medical control as required by state laws. It was found that all safety committee members are trained in basic life support (BLS) including the use of an AED. The plan included extending an opportunity for faith community members to participate in AED education. Over 30 participants were provided a 3 minute AED education video to view on their personal device, and then the participants participated in a 15 minute hands-on skills opportunity followed by a question and answer session. Participants were asked to complete an evaluation of the AED education and the results showed the education improved confidence and the participants reported being more likely to use the AED in case of a sudden cardiac event due to their increased confidence the education provided. As a result of this project, the safety committee members will maintain current BLS certification, have a written policy for monthly AED equipment maintenance using a checklist, view an AED demonstration video every 6 months, and help increase awareness by supporting an annual AED awareness campaign in February during American Heart month. The safety committee was instrumental in obtaining a local physician to oversee the AED education and maintenance program as required by state laws.

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## PST1 - Poster Session 1

### Exploring the Experiences of DNP-Prepared Nurses Enrolled in a DNP-to-PhD Pathway Program

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#### Abstract

The Institute of Medicine (IOM) reports that less than one percent of nurses in the United States hold a doctoral degree in nursing (2010). Increasing complexities of the healthcare system prompted a recommendation from the IOM to double the number of nurses with a doctoral degree by 2020 (2010). Currently two terminal degrees in nursing have been identified by the American Association of Colleges of Nursing. The Doctor of Nursing Practice (DNP) is a clinically focused practice doctorate whereas the Doctor of Philosophy (PhD) is a research oriented doctorate. Deciding which degree to pursue can be difficult for many nurses, particularly for nurse educators. Both the AACN and the National League for Nurses (NLN) have published position statements supporting doctoral preparation for nurse educators (AACN, 2010; AACN, 2015b; Dreifuerst et al., 2016; NLN, 2013). Advancement of nursing science and research requires collaboration amongst DNP and PhD-prepared nurses. A small subset of nurse educators have earned both a DNP and PhD, uniquely prepared as expert clinicians and scientists, and are poised to lead innovations in collaborative practice. The AACN recognizes the importance of the dual-role and has identified DNP/PhD combination programs and DNP to PhD pathway programs (AACN, 2015a). Nursing schools nationwide have responded appropriately offering DNP/PhD combination programs and DNP to PhD programs (AACN, 2015a). Despite this growing trend, there is a dearth of literature examining DNP to PhD programs. DNP-prepared nurses are prepared at the highest level of nursing practice and are equipped with the requisite skills to bridge the gap between research and practice. Yet, within the nursing profession, research and practice are inherently disconnected. There is an immediate need for DNP and PhD-prepared nurses to collaborate to educate futures nurses, conduct original research, and disseminate findings to improve outcomes across the continuum. Nurses with both DNP and PhD degrees are uniquely prepared and are invaluable members of the healthcare community. Recognizing the IOM's mandate to double the number of doctorally prepared nurses by 2020, this phenomenon must be studied now. There is a dearth of literature examining DNP/PhD combination and DNP to PhD programs. As these programs continue to expand, nurse educators are in need of both qualitative and quantitative evidence to guide curricular decisions and to facilitate innovative collaborative practice. The results of this descriptive phenomenological study will offer several benefits to the nursing profession. Understanding the lived experience of DNP to PhD students will identify potential barriers that can be minimized by employers and schools of nursing to facilitate enrollment in pathway programs. Additionally, recognizing the inherent differences between DNP and PhD programs from the student perspective will strengthen current DNP to PhD programs by identifying course content that overlaps as well as areas where additional coursework is necessary. Future career goals of DNP to PhD students will also enhance DNP to PhD curricula and will highlight the necessity of pathway programs nationwide. Finally, this study will support future research related to the AACN pathways to PhD education, particularly DNP to PhD pathway programs and DNP/PhD combination programs.

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## PST1 - Poster Session 1

### Will Bi-Monthly Telephone Contact Help Compliance to Improve Exercise Regimen in Obese Type 2 Diabetes?

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#### Abstract

Diabetes is a compelling and complex disease with a high morbidity and mortality rate. The cost associated with this disease, financially and physically, is substantial. Diabetes affects 25.8 million people (8.3%) of the population in the United States, and data from the National Health and Nutrition Examination Survey showed that more than one-third (34.9%) of adults were obese (Centers for Disease Control [CDC], 2013). The Center for Disease Control and Prevention (CDC) reported that 8.3 percent or 25.8 million people in the U.S. are obese and 9.3 percent or 29.1 million have diabetes. Type 2 diabetes is a chronic health condition that has also been called adult-onset or non-insulin dependent diabetes. Although an individual living with type 2 diabetes is most likely a life-long condition, it can be controlled by losing weight, adhering to a healthy diet and exercise regimen. Studies have shown that participating in physical activity 20 to 30 minutes at least every 48 hours can play a role in the control of a diabetic individual's hemoglobin A1C by increasing the efficiency of insulin in the body which allows more insulin to enter the cells and decrease blood glucose levels. Physical activity/exercise is a fundamental component of self-management in diabetes care. The purpose of this project is to identify if bi-monthly telephone contact will help motivate obese individuals who have type 2 diabetes to be more compliant with an exercise regimen. The pilot study consisted of bi-monthly (twice monthly) telephone contact with type 2 diabetics who are obese. The sample size of participants included 20 individuals ranging 19 to 78 years of age. The study included two males and 18 females. The findings of this study suggest that type 2 obese diabetics are more physically active and compliant in an exercise regimen when contacted twice a month by telephone calls. Study participants reported being motivated to be more physically active through telephone contact and a having an overall sense of well-being after exercising.

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## PST1 - Poster Session 1

### Competition-Based Learning (CBL) in Nursing Education

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#### Abstract

**Background:** Competition-Based Learning (CBL) is a new innovative and promising method of learning. Researchers with an information technology background defined CBL, based on project-based learning, as “a constructivist approach to learning in which competition is used as stimulus for the maximization of the Indented Learning Outcomes (ILOs) specified in a given course or curriculum, while team members participate in a project under a controlled environment” (Issa, Hussain, & Al-Bahadili, 2015, p.5). Similarly, researchers with an engineering background described CBL as project-based learning that involves teams of students in an open-ended assignment who are accounted for the performance of the resulting case during final project testing (Carroll, 2013). The two definitions are based on project-based learning, which is a method of learning that allow learners to acquire knowledge through the application of projects that are real and pertinent to the topic being studied (Dehdashti, Mehralizadeh, & Kashani, 2013). CBL has not been defined in nursing or medical education. However, the competition concept has been tested in multiple medical education studies, and the results were promising. Lei et al. (2016) found that the addition of a competition component in a problem/case-based learning (PCBL) was an effective learning approach in teaching about the course of severe infection to medical students. They reported that students in the team-based competition group compared to a control group were more active in the case discussion, in referring to case-related articles, attending clinical group-consultation, and performing better in the case analysis final examination (Lei et al., 2016). Another study indicated that introducing collaboration and structured competition in a hematology/oncology fellowship program resulted in improvement in attendance, participation, and engagement in learning (Makhoul et al., 2016). Also, a randomized controlled trial indicated that team-based competition had increased resident physicians level of engagement and participation in an online educational course (Scales et al., 2016). Therefore, adding a competition component in the medical education learning process was a successful strategy in promoting learning outcomes through enhancing students’ motivation and active learning.

Problem-based learning in the nursing education, parallel to project-based learning in information technology and engineering education, is shown to be an effective method of learning. It enhances collaborative, active, and self-directed learning (Mayner, Gillham, & Sansoni, 2013; Spiers et al., 2014). Some researchers consider it as a synonym to project-based learning (Pilcher, 2014). Problem-based learning is a student-centered learning approach where students define the problem and establish learning objectives required to develop their understanding of the problem (Bassir, Sadr-Eshkevari, Amirikhorheh, & Karimbux, 2014). Therefore, CBL definition in the nursing education could potentially be based on problem-based learning.

It is important to consider only symbolic and non-significant rewards to winning a classroom competition. Meaningful rewards to winning a competition such as grades or monetary prizes would result in negative consequences such as shifting the outcome value from learning to winning and failing the learning process (Shindler, 2008; Sternberg & Baalsrud-Hauge, 2015).

**Significance:** Competition-based learning that involves a group of teams would promote collaborative learning and enhance students’ motivation and active learning (Lei et al., 2016; Makhoul et al., 2016). In collaborative learning, teams of students work together in a self-directed manner to achieve a common goal and create a sense of responsibility toward the team (Makhoul et al., 2016). The collaborative learning combined with enhanced motivation to learn enforce team-work spirit among students, promote engagement and self-directed leaning, emphasize share of knowledge among the group members, and stimulate students’ creativity and innovation to achieve better learning outcomes. These outcomes ultimately result in an effective learning process and potentially sustained learning outcomes.

**Applying Competition-Based Learning in the Nursing Education:** Application of CBL in the nursing education is unclear. The following is a suggested approach of applying the CBL in the nursing courses.

**Context.** Since grades should not be involved in a winning outcome, CBL may be applied in tutorials, where students are prepared for real course exams. Students may earn grades for participation or attendance in the tutorials but not for winning.

**Group formation.** The instructor asks the students to divide themselves into groups. The instructor may determine the size of the group according to what he or she thinks is better serving the competition success. The number of students in each group should be even. Giving the students the autonomy to form their teams promotes satisfaction, self-confidence, decision-making skills, and harmony among the team members, which eventually maximize the collaborative and innovative learning. If lower achieving students remain to form a group and discrepancies in the academic level were noted among the teams, there should be no worries as CBL aims to promote learning motivation and desire to improve the academic level.

**Competition.** The competition is done during the course tutorials classes. Multiple competitions will be conducted according to the determined course tutorials classes. The competition should cover the course contents taught in the preceding period. During the contest, all teams are asked to analyze a specific problem or case and answer some related questions. Alternatively, simulation cases could be asked, and the whole group participates in solving the case through simulation.

**Evaluation.** At the end of each competition, points are accumulated toward the team according to the questions answered right and instructor’s evaluation. There is no elimination of any members or groups. Final points are announced at the end of all course tutorials, and the winning team is the one that accumulates the larger number of points. No grades should be involved.

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## PST1 - Poster Session 1

### Guidelines for Development and Implementation of the DNP Scholarly Project

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#### Abstract

**Problem:** The culmination of academic programs of study that lead to the doctor of nursing practice (DNP) degree is the scholarly project. Doctoral curricula in schools of nursing typically include a series of courses designed to facilitate development, implementation, and dissemination of the project. DNP projects focus on clinical practice changes that impact health outcomes. Planning, implementation, and evaluation are three components that must be addressed (AACN, 2015). The project is an evidence-based practice (EBP) approach to problem solving. While the DNP project is not a research endeavor, attention to available research is essential. The goal is the translation of current research into practice for the purpose of improving quality of care (Shirey et al., 2011). It is also important that projects reflect DNP graduates' achievement of required skills for advanced practice. The structural basis for demonstration of the advanced knowledge and skills consistent with a practice-focused doctorate is provided with the *Essentials of Doctoral Education for Advanced Nursing Practice (DNP Essentials)* (AACN, 2006)

**Background:** The DNP faculty at a school of nursing at a small, private, liberal arts university admitted its first cohort of students with a bachelor of science in nursing (BSN). Faculty recognized that the BSN to DNP student may have minimal experience with leadership and organizational processes and may be considered a novice with regard to the expected leadership role of a doctoral scholar. Novice behaviors are likely rule-governed and may be limited to only one aspect of a situation (Benner, 2001). Focused direction is needed to assist the baccalaureate prepared nurse to alter thinking processes in a manner that facilitates effective use of available knowledge to impact patient health outcomes. Multiple ways of thinking encourage students to take ownership and to seek opportunities to influence practice situations (Benner, Sutphen, Leonard, & Day, 2010). Expansion of a novice's way of thinking can be accomplished by providing guidelines and expert assistance (Dreyfus, 2004) in situations that are unfamiliar or beyond one's level of experience. Benner (2001) discussed the importance of coaching and providing assistance as an important aspect of teaching students and patients.

Schools of nursing that offer the BSN to DNP have reported that assistance on how to develop guidelines for the scholarly project is needed (Auerbach et al., 2014). In addition, the concern that current doctoral faculty may be unfamiliar with the EBP process as opposed to the research process has also been reported (Zelenikova, Beach, Ren, Wolff, & Sherwood, 2014). Therefore, concise guidelines to assist students and faculty in the process of project development are critical.

**Purpose:** The purpose of this presentation is to discuss our school's revision of the guidelines for the DNP project. Revisions reflect current recommendations from the American Association of Colleges of Nursing (AACN, 2015). Updated terminology and clarification of the scope of the project are included in the revised guidelines. Attention to achievement of the *DNP Essentials* (AACN, 2006) is also evident as a required outcome.

**Methodology:** After students complete the core doctoral curriculum and specialty courses, two courses comprise the proposal and implementation phases of the DNP project. Faculty developed a separate rubric for each phase to guide students through the process. The first course is the project proposal; and the revised guidelines detail development of the topic, identification of project framework, review of literature, and description of the plan for intervention. The rubric for the second course provides structure for project implementation, evaluation, and dissemination. The revised *SQUIRE* guidelines provide the foundation for project proposal writing and for the implementation and dissemination phases. The conciseness and clarity of the items in *SQUIRE 2.0* (Ogrinc et al., 2015) are consistent with the aims of our revised DNP project guidelines. Consistent with *SQUIRE 2.0*, each rubric provides detailed, step-by-step directions for each component of the project.

**Results:** The revised guidelines are currently in use for the first time. DNP projects will be implemented and evaluated during spring semester of 2018, and comments in relation to usability and appropriateness of the revised guidelines will be solicited. Faculty and student comments will be reviewed for needed adjustments before any subsequent use of the guidelines.

**Significance to nursing:** Translation of evidence into practice is dependent upon the clinician's ability to effectively demonstrate multiple ways of thinking in relation to clinical practice. Clear guidelines during the DNP project process support the development of robust projects that impact nursing practice and health outcomes.

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## PST1 - Poster Session 1

### Interprofessional Educational Collaboration Between Graduate Outpatient Pharmacy and BSN Community Health Nursing Students

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#### Abstract

Interprofessional educational opportunities for undergraduate nursing students as well as graduate pharmacy students are an essential focus of curriculum development work at the university. As described by Frank, Chen, and Bhutta (2010), professional education is in need of further interprofessional reform and the authors encourage educators to look at transformative learning and interdependency between healthcare disciplines to help engage students in the healthcare problems of the twenty first century. A primary issue in interprofessional care involves medication practices and collaboration for medication safety in the outpatient care setting. The National Academies of Science, Medicine and Engineering as outlined in the report, Preventing Medication Errors (2007) as well as the medication safety work on community pharmacy medication safety completed by Institute of Safe Medication Practices (2017) continue to stress the importance of medication safety in all practice settings, including community based practices and patient homes. In academic settings, the Quality and Safety Education for Nurses (QSEN, 2007) competencies highlight the importance of teamwork and collaboration for patient safety in nursing education as does the Accreditation Council for Pharmacy Education (ACPE) standards for accreditation and competencies in pharmacy schools. The interprofessional education work developed by Wilbur, Hasnani-Samnani, and Kelly (2015) demonstrated success in interprofessional education between pharmacy and undergraduate nursing students in medication case study simulations related to management of diabetic ketoacidosis across the continuum of care. With the learning goals to increase student exposure to interprofessional education and to enhance patient medication and medication safety knowledge and skills of students, faculty from the School of Nursing and School of Pharmacy partnered to develop a semester long experiential learning project using simulation, case studies, and focused discussion to enhance patient medication safety through collaboration and teamwork within the ambulatory care pharmacy (RX511 and RX512) and community health nursing (NU412) courses.

The semester long pilot project was undertaken to engage students in collaborative interprofessional learning using small group work. The teamwork and communication framework developed through the TeamSteps program (AHRQ, 2017) assisted students to practice addressing issues of medication safety in community based settings. Teams had access to online drug handbooks and pharmacy resources during the activities. After the presentation of a complex case and completion of the medication safety activities, teams worked together to build community focused plans for implementation of medication safety and medication practices unique to community based practice. The three (3) hour sessions were held on campus with community based pharmacy rotations for the pharmacy students to enhance the student experience as well as community health home care or other community site rotation experiences for nursing students. Through careful selection of real-world cases susceptible to medication error as well as cases which demand collaboration between nursing and pharmacy students in community settings, students were engaged in guided discussion and problem solving with the final group assessment focused on performance based evaluation of the creation of plans to address the patient medication safety needs. Overall, student learning outcomes were assessed using a classroom assessment to check understanding in the areas of medication safety, teamwork, communication, and collaboration. Further summative assessment was developed in each individual course to assess the learning outcomes linked back to the context of the interprofessional experience.

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## PST1 - Poster Session 1

### Refusing to Let the Dust Settle: Creative Evaluation of a Concept-Based Curriculum

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#### Abstract

Concept-based curricula are being implemented in nursing education as a means to shift the emphasis from content to an emphasis on concepts and conceptual learning (Giddens & Brady, 2007). This paradigm shift requires concomitant changes in how faculty teaches and how students learn. In concept-based curricula, teachers use student-centered learning activities, such as cases, questions, or problems to engage students in active learning (Giddens, Caputi, & Rodgers, 2015). In the summer of 2016, a College of Nursing in an academic health science institution in the northeast region of the United States began the implementation of an undergraduate concept-based curriculum. A workgroup was formed and charged by the faculty at large with developing and executing an evaluation plan of the concept-based curriculum. The purpose of this poster is to describe the development of a concept-based curriculum evaluation plan and the results of preliminary data from the evaluation. The National League for Nursing's (2016) Hallmarks of Excellence served as guiding principles and existing literature regarding curriculum evaluation served as a framework to approach this work (Giddens & Morton, 2010; Oermann, 2017). The workgroup specified a threefold purpose: identify gaps in content, identify and reduce redundancies in concepts, and ensure that concepts and exemplars are arranged from simple to complex. Next, each member of the workgroup was tasked with submission of summative and formative assessment questions. The mutually agreed upon questions that guided this inquiry were (a) do faculty and students systematically evaluate the impact of innovative teaching and curriculum approaches on student learning, student satisfaction, and other student-centered outcomes (summative and formative); (b) to what extent does each clinical experience help students develop their ability to provide evidence-based care to patients, families, and communities experiencing a wide range of health problems (summative and formative); (c) are teacher-made tests aligned with the NCLEX-RN blueprint (formative); (d) are curricular concepts and exemplars following the principle of simple to complex (formative); (e) do correlations between numeric course grades and nationally-recognized standardized assessment raw scores support that such assessments are placed appropriately throughout plan of study (formative); (f) how are students adapting to, within one course, different faculty, different learning strategies, and different class preparation (summative and formative); (g) how is faculty integrating active learning strategies utilized across the curriculum (summative and formative); and (h) is there any change in traditional program indicators of success when comparing the concept-based curriculum in terms of graduation rate, NCLEX-RN performance, and employer satisfaction (summative). For each question, specific outcome metrics were identified, time frames for assessment were established, and workgroup champions were identified. Data collection methods included (a) student course evaluations, (b) faculty summative evaluation, (c) stakeholder surveys, (d) concept assessment, (e) student and faculty focus groups, (f) standardized test scores, (g) graduation rate, and (h) NCLEX-RN pass rate. The concept-based curriculum was implemented in the prelicensure program that includes a traditional, upper division track and an accelerated, second-degree track. Each track admits students once a year, with the accelerated track starting in May and the traditional track starting in August. The accelerated students complete four quarters of nursing course work over a 12 month period; whereas, the traditional students complete four semesters of course work over a two year period. The data collection included all four quarters of nursing coursework for the accelerated students and the first two semesters of the traditional students. A variety of methods, such as descriptive statistics, correlational analysis, and qualitative content analysis, were used. At the end of one academic year, the workgroup has generated several deliverables, thus far, including (a) a curriculum assessment and evaluation plan for three years, (b) a revised concept/exemplar map, (c) an initial analysis of standardized test scores as compared with final numeric course grades earned by students, (d) a revision of pharmacology course content, (e) clinical and didactic scheduling recommendations, and (f) faculty feedback regarding active learning strategies and textbook resources. Next steps for ongoing evaluation include collection of data regarding student satisfaction with concept-based learning, active learning strategies, and varying faculty approaches to teaching. Additionally, clinical preparation for employment should be evaluated, including graduate and employer feedback. Finally, ongoing evaluation of questions that have already been addressed is important given that the traditional students have not yet completed a full-cycle of the concept-based curriculum. The development of this concept-based curriculum evaluation plan and its preliminary results are significant to this College of Nursing, as well as other nurse educators. In addition to developing a three-year curriculum assessment and evaluation plan, this work provided data that contributed to evidence-based revisions of this curriculum. This curriculum evaluation plan will be a useful guide to nurse educators who are implementing concept-based curricula and beginning the process of curriculum evaluation.

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## PST1 - Poster Session 1

### Assessing Acuity Adaptable Staff About Their Perceptions of Current Fall Prevention Practices

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#### Abstract

**Purpose:** The purpose of this quality improvement project was to assess the perceptions of Acuity Adaptable staff nurses' and care technicians fall prevention practices. The ultimate goal of the project was to understand barriers and suggestions about current fall prevention practices.

**Significance:** The average cost of an inpatient fall with injury at the facility is \$44,000. Falls with injury increase cost and length of hospital stay and may produce serious harm to patients. Preventing inpatient falls is a critical aspect of patient safety. The number of falls on the Acuity Adaptable Units was not significantly reduced in the past year, and further reduction in falls was needed. In 2016, the average raw numbers of falls per month were 10.58, and 2017 year to date average raw number of falls per month is 9.8. One potential solution to identifying ways to further reduce falls was to survey staff for their perceptions about current fall prevention practices. Understanding staff perceptions and involving staff in the quality improvement process may lead to prevention solutions and actionable items to reduce falls.

**Methods:** An 8-item voluntary survey developed by the authors was administered to Acuity Adaptable Staff to assess their perceptions of fall prevention practices. Survey items addressed barriers, suggestions, concerns, and having the necessary fall prevention tools available.

**Findings:** Out of 233 eligible nursing staff, 60 registered nurses (RNs) completed the survey. Day shift staff RNs (n=22/37%) and Night Shift staff RNs (n=38/63%) participated with registered nurses representing 98% (n=59), and 12 eligible care techs 2% (n=1). Eighty-five percent were full time (n=51), ten percent part time (n=6), and five percent from the nursing float pool(n=3). Identified barriers to fall prevention were primarily related to patient non-compliance, lack of patient perception that they are a fall risk, confusion/medical condition, and the nursing staff not getting to the patient in time to prevent the fall. Concerns from surveyed staff included that bed alarms or other interventions were not consistently utilized, especially by non-nursing departments, fall risk assessment tool not accurately scored, and lack of staff communication that the patient is a high fall risk. Comments were made that staff felt the "Call Don't Fall" sign and the chair alarm were effective interventions. Staff suggestions included additional interventions: implementing a gait belt, therapy activities, lap belts, pre-made packets of safety precautions (fall sign, yellow non-slip footwear and armband), shower mats, and additional staff and patient fall prevention education.

**Conclusions:** By surveying the staff, valuable information was gained about staff perception of fall prevention practices on the Acuity Adaptable Units. Other healthcare organizations could survey staff about their perceptions of effective fall prevention practices.

**Implications:** Staff should be involved in evaluating the fall prevention interventions and processes. Future plans to decrease falls on this unit includes implementing identified prevention solutions and actionable items to reduce falls based on the staff survey results.

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## PST1 - Poster Session 1

### Nurse-Leader Rounds

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#### Abstract

Nurse leaders are faced with various challenges, one of which is to assure an excellent experience for hospitalized patients and their loved ones. Even though health care leaders recognize the patient's experience as the highest priority, many are struggling to balance the factors that impact this experience while providing exceptional care. A high priority of healthcare administrators is ensuring positive patient experiences during their hospital stay. Nursing leaders are in a position to foster changes necessary to impact patient experience proactively. To assure consistency and quality in the delivery of care, nurse leader rounding (NLR) was created. It is a systematic process recommended as a best practice according to Baker and McGowan (2010). Seeing patients daily, during morning rounds by a doctor or nurse, has been part of traditional medical practice since its existence as a profession. During rounding, healthcare providers gather information while speaking to the patient directly. They assess the patient in real time, develop a trusting relationship, listen to what patients have to say about the care being provided, and are immediately available to address any concerns raised by the patient by conveying all the necessary orders to anyone responsible to follow up with patient needs. Nurse leader rounds work in a similar manner. It is a process that allows nurse leaders to connect to patients, reinforce care, verify nursing behaviors, gain real-time response, achieve instantaneous service recovery, recognize staff, follow up to assure all patients needs are met, and develop a trusting relationship. NLR is a proactive approach to the delivery of care (Baker & McGowan, 2010).

The Affordable Care Act (ACA) is a healthcare reform that was passed by Congress in 2010 with the primary goal to provide quality care based on best practices and proven outcomes (CMS, 2014). The Center for Medicare and Medicaid Services (CMS) is responsible for establishing and maintaining guidelines for hospitals to receive governmental healthcare reimbursement (CMS, 2014). The new reimbursement system links healthcare compensation directly to quality care, and pay for performance, also called a Value Based Purchasing initiative. A standardized questionnaire named Hospital Consumer Assessment Health Care Providers and Systems (HCAHPS) was created by CMS to measure outcomes and patients' perception of care delivered the measurement of which is reflected in patient satisfaction. This survey was implemented in 2006 and designed by the Agency for Healthcare Research and Quality (AHRQ) to query recently discharged hospital inpatients with 27 essential questions divided into specific domains of care (communication and care from nurses, response of hospital staff, medication management, pain management, discharge information, transitions of care) (CMS, 2014). This tool is believed to accurately assess the primary drivers of adult inpatient satisfaction scores and is designed to provide a standard and objective comparison of a hospital performance relative to other hospitals (Merlino, 2014). The CMS program rewards acute care hospitals with incentive payments based on the quality of care provided, how closely best clinical practices are followed, and how well hospitals enhance inpatients experience (Merlino, 2014). Therefore, any effort to improve scores would be welcomed by hospital administrators.

A key challenge for hospitals is how to improve patient satisfaction by using HCAHPS questions as a source of patient feedback and to use as a guide for nurse leaders to translate it into actionable items in order to change the care delivered. NLR permits more personalized patient care plan and provides a thorough understanding of potential patient concerns. One to one patient feedback during NLR allows for individual interaction and visual assessment of the patients' perception of care, which can only increase the benefits of the purpose for HCAHPS surveying. Accounting for patient preferences involves matching the questions to the individual; which requires asking the right questions as part of a whole plan of care and the discharge planning process. The nurse leader's ability to bridge patient feedback into tactical action using NLR as an organizational strategy provides the capability to move an organization forward from reactivity to proactivity (Studer, Robinson, & Cook, 2010).

Regardless of the organization, all nurse leaders promote and practice open, two-way communication between patients and providers to clarify treatment goals and actions to accomplish them. Additionally, the nurse leader/manager "is responsible for ensuring not only patient care is given but also it is given in the most effective and efficient manner possible" (Tappen, R., et al., 2004, p. 6).

The purpose of the study was to explore if there was an impact of NLR on patient satisfaction. According to Tappen, Weiss & Whitehead manager or nurse leader is defined as a person capable to stimulate from employee "creativity, consistent excellent productivity, and maximum potential contribution toward continuous improvement of process, product, and service" (1992, p. 276). Nurse leaders may include unit nurse managers, supervisors, department directors, nurse education managers, or clinical nurse managers of a unit or division within a health care organization.

Definitions:

**Nurse Leader (NL):** is defined as a person capable to stimulate from employee "creativity, consistent excellent productivity, and maximum potential contribution toward continuous improvement of process, product, and service" (Tappen, Weiss & Whitehead 1992, p. 276).

**Effective nursing rounds (ENR):** ENR is defined as the ability of a leader to move staff in accordance with the mission and goals to proactively ensure the delivery of safe, high quality care and identify improvement opportunities (Studer et al., 2010).

**Nurse leaders (NL):** NL include unit nurse managers, supervisors, department directors, nurse education managers, or clinical nurse managers of a unit or division within a health care organization (Studer et al., 2010).

**Nurse leader rounds (NLR):** NLR is a process that allows nurse leaders to connect to patients, reinforce care, verify nursing behaviors, gain real-time response, achieve instantaneous service recovery, recognize staff, follow up to assure all patients needs are met, and develop a trusting relationship. (Baker & McGowan, 2010).

**Patient Satisfaction (PS):** is patient's perception of care reflected by patient satisfaction scores collected using HCAHPS and is directly related to the quality of nursing care patients receive (Studer et al., 2010)

**Rounds** involve direct observation, assessment and evaluation of patient, staff, unit functioning, clinical environment and global view of patient status (Studer et al., 2010).

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## PST1 - Poster Session 1

### The Medical Student Collaborative: An Innovative Model to Improve Interprofessional Collaboration, Communication, and Patient Care

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#### Abstract

**Introduction:** The World Health Organization (WHO) supports interprofessional collaboration and education (ICE) to strengthen efficiency and performance of healthcare teams resulting in improved outcomes for patients, team members, and organizations (2010). This recommendation has been validated by studies demonstrating the benefits of ICE including improved role definition, identification of factors influencing the team environment, improved attitudes of team members, and improved communication (Aase, Hansen, & Aase, 2014; Park, Hawkins, Hamlin, & Hawkins, 2014; Shafran, Richardson, & Bonita, 2015). The Medical Student Collaborative began in 2016 after medical faculty approached the hospital's critical care outreach team with a desire to expose fourth year medical students to high acuity situations. Initial feedback from medical students participating in the Collaborative indicated benefits extending beyond the program's intent. These incidental observations reflected the value of ICE as identified by the WHO and the studies cited. Consequently, the Collaborative has evolved to encompass both the care of high acuity patients and phenomena pertaining to interdisciplinary teamwork.

**Project Description & Goals:** The critical care outreach team is composed of highly skilled, experienced critical care nurses who possess keen operational knowledge and are empowered to practice to the full extent of their license. They provide critical care consultation, emergency response, staff education, and advocacy to 14 acute care units in a 697 bed academic medical center. This dynamic environment requires the critical care outreach nurse to autonomously triage and expedite multiple requests during a given shift. The nurses' breadth and depth of critical care experience, accompanied by their operational expertise and exuberance for teaching, rendered them opportune partners in this Collaborative. Fourth year medical students are scheduled to work with a critical care outreach nurse for a single seven hour shift from 1700 to 0000 when the team receives its highest volume of calls. Collaborative objectives are clearly written and shared among all participants to provide direction and justification for the experience (Woermann, Weltsch, Kunz, Stricker, & Guttormsen, 2016). Revised objectives based on feedback from early participants include: enhance critical thinking and confidence in the recognition and management of decompensating patients; collaborate in interdisciplinary planning and facilitation of patient care; engage in interdisciplinary opportunities for teaching/learning to improve patient and nurse outcomes; gain experience obtaining arterial blood specimens and establishing intravenous access in patients with compromised vasculature utilizing ultrasound guidance as needed.

The vision for this Collaborative is to provide an exemplar framework for healthcare and education systems to work together in actualizing ICE thus addressing the WHO's call to action (WHO, 2010).

**Process:** The medical student performs proactive rounding and surveillance with the critical care outreach nurse and responds to all emergencies and requests for consultation, procedural assistance, and staff education needs. Throughout the shift, the medical student and nurse engage in purposeful debriefing regarding the patients they encounter and discuss interdisciplinary experiences pertaining to communication, flow of patient care, and role clarification. Students have the opportunity to ask numerous questions ranging from patient management during a crisis situation to educational preparation of an acute care bedside nurse. The Collaborative experience further affords medical students the opportunity to establish intravenous access and obtain arterial blood specimens utilizing ultrasound guidance. During periods of downtime, the critical care outreach nurse reviews evidence-based unfolding case studies with the student that address interdisciplinary management of unstable, decompensating patients. Following their experience with the critical care outreach nurse, medical students are asked to complete an electronic, anonymous survey. Questions are answered using a numerical rating scale and with open response. Data collection began in May, 2017 and is ongoing with each monthly cohort of medical students. Since the Medical Student Collaborative began in 2016, critical care outreach nurses and medical students have shared over 500 hours of ICE.

**Outcomes:** Preliminary survey results indicate working with the critical care outreach nurse increases medical students' confidence in the recognition and management of decompensating patients while offering a better understanding of interdisciplinary communication as it pertains to the continuum of care. Medical students report the experience was worth their time and it improved their understanding of how collaborative teaching/learning experiences impact nurse and patient outcomes. They further indicate the experience increased their knowledge in establishing intravenous access and obtaining arterial blood specimens. Individual comments include, "it helped me understand the responsibilities of nurses and the functions of different ancillary staff in the hospital. I think it was a tremendous experience in fostering interdisciplinary understanding;" "...it made me feel less timid to ask RNs about various thoughts/questions I have in the future. Specifically, I found it encouraging that my interest in learning how to gain IV access, perform blood draws, learn how to care for port sites, learn how the monitors work in the room, and learn how to position the bed for a code would be well-received;" and "I wish there were more sessions/opportunities for medical students to be involved with learning about the day-to-day lives/activities of RNs. It would be helpful to see exactly what happens when we place orders in [the computer] and then things are 'magically' completed (e.g. blood draws, accessing a port, initiating tube feeds, initiating IVF, etc.)"

**Conclusion:** The outcomes of the Medical Student Collaborative demonstrate alignment with the core competencies defined by the Interprofessional Education Collaborative (2016). Students speak of experiencing a respectful environment that facilitates interdisciplinary understanding and delivery of patient-centered care. Through increased understanding of the nurse's role, students identify how their

communication and actions directly affect patient care. Although the original intent of the Collaborative involved managing patients in high acuity situations, the findings of this Collaborative thus far suggest that ICE facilitates effective clinical care in high acuity situations by establishing a trusting environment that allows for open communication and interdisciplinary understanding. As the Collaborative continues to evolve it is necessary to identify objective measures pertaining to short and long-term effects of ICE on patient, nurse, and medical student outcomes.

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## PST1 - Poster Session 1

### Utilizing Standardized Patients and High-Fidelity Simulation to Promote Interdisciplinary Communication

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#### Abstract

Changes in health care practices, patient outcomes, and advances in technology have brought about a radical need for restructuring health care education. Individuals entering health careers today have been involved in the digital age since infancy. Traditional teaching methods need to be augmented with today's technology to accommodate the learning styles of this generation. Students need to be taught in a way that will prepare them to perform in the changing health care environment.

Miscommunication has been linked to medical errors and in trauma situations these errors have an increased risk of becoming fatal. It is imperative for patient safety that effective team communication occurs. Paramedic and nursing students alike require the ability to perform during stressful situations from both the medical and psychological aspect of care.

Professors from the areas of Nursing and Emergency Medical Services hosted an interdisciplinary mass causality training exercise. The college partnered with high school students who have identified interest in health professions, a local fire department and a local towing company to create a realistic automobile accident with over 20 patients exhibiting multiple traumatic injuries. The simulation began when a driver, distracted by texting, missed a stop sign and drove into a busy intersection, hitting several pedestrians and other motor vehicles in the process. Over 50 Paramedic and Nursing students participated in the exercise utilizing disaster management skills.

The event created an ongoing collaboration between disciplines at the college, and bridged the gap between practice and education through use of simulation (high fidelity simulators and scripted patients), while offering innovative ways to teach our next generation of health care responders.

The interdisciplinary approach to education will be invaluable to the students and faculty as they gained knowledge of each discipline.

This study utilized standardized patients and high fidelity simulation to promote knowledge, skills, and attitudes of team structure, leadership, situation monitoring, mutual support, and communication in a controlled setting during a disaster.

QSEN was used as a framework for the study which focused on teamwork/collaboration, patient-centered care, and safety. A test retest format was performed utilizing the Agency for Healthcare Research and Quality (AHRQ, 2017) *TeamSTEPS Teamwork Attitudes Questionnaire* along with a post-simulation reflection paper identifying themes of participants' attitudes.

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## PST1 - Poster Session 1

### Pedagogical Strategy for Teaching Innovation and Business Concepts to Graduate Nursing Students

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#### Abstract

Objectives: The purpose of this descriptive study was to obtain student feedback on a newly designed class assignment in a graduate nursing course. The research questions were:

1. How well did ILPA assist graduate nursing students in developing critical thinking and innovation skills?
2. How well did ILPA assist graduate nursing students in ethical decision-making and problem solving?
3. How well did ILPA assist graduate nursing students in developing their “soft” leadership skills?
4. How well did ILPA assist graduate nursing students in learning about innovation and business concepts relevant to their current and future practice?

Methods: This cross-sectional descriptive study used a 14-item online survey administered via Qualtrics after students have completed ILPA. The Institutional Review Board at the researchers’ university approved the study.

Sample: Students from three sections of OSU College of Nursing’s N7403 Innovation Leadership in Advanced Nursing Practice were invited to participate in the Qualtrics survey via class announcements in Canvas and email

Measurement/Instrumentation: The co-investigators developed the short survey displayed in Appendix A to obtain student responses to ILPA. No validity or reliability data was available for this new instrument.

Qualtrics Survey Software was used to design an online survey. Qualtrics Survey is a hosted solution supported centrally at OSU by OCIO giving administrators total control over the survey environment. Only OSU authenticated users can log in to create surveys or view the responses. Additionally, the users can be assigned to roles so users can be authenticated for viewing or modifying survey questions or viewing the responses. The Qualtrics system is secure and HIPAA/FERPA compliant approved.

Data Analysis: Descriptive statistics (e.g., mean and standard deviation for continuous variables and frequency and percentage for categorical variables) were our main analytic strategy to summarize sample characteristics and the distribution of the responses to each of the five point Likert scale survey questions. We used bivariate tests (e.g., correlation coefficient and row mean score difference test) to examine the association between survey responses and subject characteristics. Mean plots and bar charts will be used to visually illustrate the study results. Cronbach’s alpha will be used to test the reliability of the instrument.

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## PST1 - Poster Session 1

### Implementation and Evaluation of a Journal Club for Acuity Adaptable Units

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#### Abstract

**Background:** Creating and sustaining a practice environment based on research and evidence is an essential requirement for achieving Magnet, a designation signifying a highly professional nursing clinical setting awarded by the American Nurses Credentialing Center. One strategy for bringing research to the bedside is Journal Club. Journal clubs have been shown to be an effective, interactive strategy for increasing nurses' knowledge of research and evidence. Journal clubs also provide opportunities for experienced nurses to mentor newer nurses in a comfortable, informal setting. The Journal Club can be individualized to meet unit/setting interests, making it a flexible format for contemporary and cutting-edge evidence for addressing current problems and exploring new initiatives. There has been an ongoing evaluation of the Journal Club to determine its effectiveness over time. The purpose was to implement and evaluate a Journal Club for general medical-surgical units.

**Methods:** Journal Club is held monthly at the same time and location with reminder notices and the feature article disseminated 1- month prior. Facilitated by two Clinical Nurse Specialists, topics are determined by practice priorities and staff recommendations. The Journal Club is implemented by: surveying for best time; maintaining consistent time and location; advertising; and inviting guest speakers. Guest discussants provide provocative and in-depth discussion of a selected article. CNE credits are provided to nurses. The literature-based objectives of the Journal Club were evaluated using a 15 - item survey administered to participants and two open-ended questions.

**Results:** Within the past 24 months, mean attendance per meeting was 7, range was 3 to 10. A total of 6/6 available participants completed the survey. A 4-point Likert Scale was used with: 1= strongly disagree; 4= strongly agree (higher scores equaling higher satisfaction). The mean satisfaction score was 3.7/4. For item 5, "I feel my overall knowledge about EBP/research has increased by attending Journal Clubs" the mean score was 3.7/4. For the open-ended question, "Why do you choose to attend Journal Club?" the responses were: "great educational delivery model"; "I love this way of learning"; it helps me to provide the best care for my patients" "the people and knowledge obtained"; and "to learn and keep updated knowledge". For the open-ended question, "What do you like about the Journal Club?" the response was "the topics are in just the right time for the clinical uses which is very instrumental".

**Conclusions:** Results indicate nurses' satisfaction with Journal Club, and an increased attainment of overall knowledge about EBP/Research. The effectiveness of Journal Clubs on supporting evidence-based clinical decision making is not clearly evident. A different approach is needed to evaluate the impact of a Journal Club on use of EBP/Research in clinical practice.

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## PST1 - Poster Session 1

### Partnering to Increase the BSN Prepared Workforce

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#### Abstract

The Institute of Medicine (IOM) (2010) recommends 80% of the nursing workforce be prepared at the baccalaureate level by 2020. To accomplish this goal, the IOM endorses partnerships between academic nurse leaders and employers. The Tricouncil of Nursing (2010) further supports participation of employers in this initiative and stresses the inclusion of financial and professional incentives. Researchers have identified multiple barriers for nurses returning to complete their baccalaureate degrees. These barriers include (a) lack of time due to family commitments and work, (b) cost of secondary education, (c) fears related to returning to school, and (d) concern about technological changes in academia (Conner & Thielemann, 2013; Duffy et al., 2014; Sportmann & Allen, 2011). Academic leaders and employers must address these barriers in collaboration to move the nursing workforce towards completion of this goal.

In early 2016, nurse administrators from a local healthcare system approached nursing faculty from an established nursing program to begin a collaboration aimed at facilitating BSN completion of their nurses. Since degree status of RNs employed within the healthcare system had not been tracked, their percentage of BSN prepared nurses within the system was unknown. Thus, a needs survey was developed that included demographic information, preferences, and perceived barriers to degree completion. The survey was distributed via the hospital email system to all registered nurses employed by the healthcare system (N=887). Two hundred eighty-six nurses completed the survey for a response rate of 32%. Demographic data revealed that the average nurse was female (91.6%), more than 40 years of age, and white (94.4%) with more than 15 years experience as a nurse. Only 45% of nurses were prepared at the BSN level or higher. The majority of nurses (51.7%) completed their associate degree in nursing more than ten years ago. Additionally, 58.5% of nurses stated they had a moderate to very strong interest in completing a BSN degree. Top barriers identified by nurses included cost, time commitment, family responsibilities, and work schedule. Using these data as a basis, an RN-BSN completion program was designed.

Survey data emphasized that a fair amount of nurses within the system were older and had been out of school for a number of years. Comments from the survey reinforced that many were fearful of going back to school due to limited exposure to computers and online formats. With these factors in mind, support components that included implementing preparatory classes prior to beginning the program, assigning a designated program advisor, providing onsite classes, and using a cohort model where students progress with the support of peers were included. Due to their eligibility for tuition reimbursement benefits, fulltime working nurses were the target audience for the program; therefore, the program design includes a part time plan of study with two classes per term over an 18 month period. A hybrid class format with alternating face to face onsite classes and online coursework was adopted as it offers increased flexibility in scheduling, but also provides students with opportunities for interactions with peers and faculty.

Recruitment of nurses began in spring of 2016 for the fall 2017 cohort. Multiple general information sessions, transcript reviews, an application open house, and participation in the hospital's education fair resulted in attracting over 60 prospective RN-BSN students. Since completion of prerequisite courses prior to beginning the cohort is desirable, early identification of additional prospective students is essential as time may be needed for them to complete prerequisite coursework. This aspect of early identification and planning for cohort entry has proven to be a major challenge as much time and energy must be used to continually track student progress prior to entry into the cohort.

Currently, admission of the first cohort is underway. Creation of a revenue model revealed that a modest group of eight students could be self-sustaining, thus this is the target number of participants for the initial cohort. Continual collaboration between nursing faculty and nurse administrators has been essential in recruiting the initial cohort. Also, the university admissions department and healthcare system's human resources department have provided crucial support.

Evaluation of the program will be accomplished through tracking of student retention and program completion. Participants will also complete exit surveys addressing effectiveness of preparatory classes, program advisor, plan of study, class format, and program cost. Data derived from these sources will be used to revise the program as indicated.

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## PST1 - Poster Session 1

### Differences in Debriefing Practices in Nursing Education: Instructor-Led and Peer-Led

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#### Abstract

Simulation is utilized in many trades to provide a safe learning environment. Healthcare has adopted simulation training as a safe learning tool to allow students to practice skills and prepare for situations in the clinical setting. Simulation has been shown to be effective in eliciting problem-solving skills, critical-thinking skills, and team collaboration. Debriefing is one of the most important learning practices and takes place after the simulation is completed to stimulate further learning and reflection for the participant to gather feedback on their performance. The piece of simulation education that appears to be lacking is the research in debriefing techniques. The clinical significance is that, in nursing and in all of academia, all activities must be geared toward optimizing student learning outcomes (SLOs). Since the incorporation of simulation into nursing education is a relatively new practice, there isn't ample evidence that supports whether one debriefing method is more effective than another. There has been some research that explores instructor-led debriefing but there is inadequate information about peer-led debriefing (Wazonis, 2016, Dufrene, 2013). A small amount of research supports that peer-led reflection engages students in their own learning process and instills a sense of responsibility in knowledge acquisition (Spiller, 2012). **Purpose:** This project will explore the differences in debriefing between instructor-led and peer-led techniques. **Method:** A group of students will participate in a simulation scenario and then debrief with an instructor and then the same group will participate in another scenario and debrief through a peer-led group discussion. There will be a total of 30 students in the course who will be asked to participate and the students will take part in the simulation scenarios one day a week in groups of five to six students. The data collection will take place over five to six weeks. **Results:** Satisfaction with debriefing will be evaluated using the Debriefing Assessment for Simulation in Healthcare (DASH) questionnaire. The results will be calculated using the Mann-Whitney U test. **Conclusions:** to be determined later. Projected completion date of this project is August 2017.

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## PST1 - Poster Session 1

### Enhancing Quality of Life of Cancer Survivors: Incorporating Survivorship Care Plan in Nursing Education

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#### Abstract

**Introduction:** This number of cancer survivors is expected to rise to up to 18 million by 2022. The large number of cancer survivors and the long periods of survivorship pose challenge to the current health system in advancing quality transition care (McCabe et al., 2013). Cancer survivors are at higher risk for morbidity and premature mortality associated directly to the cancer itself, pre-existing morbidities, and to exposure to therapy. During the transition from active treatment to post-treatment care, cancer survivors may be left lacking the knowledge, resources, or skills that are necessary to manage the long-term effects of their disease and treatment (Hauken et al., 2015; Irwin et al., 2011). In order to reduce the challenges of cancer survivorship, the Institute of Medicine (IOM) recommends the use of survivorship care plan (SCP). SCP can help coordinate clinicians to manage long-term survivorship care (Salz et al., 2012). Nurses are on the front line of patient care and promoting health and disease prevention are their top priorities. It is of utmost importance that nurses who provide survivorship care enhance their knowledge and skills and advocate for and identify new ways to meet the needs of survivors as these are crucial in the care, research, and program development (Grant et al., 2012).

**Purpose:** The purpose of this project is to propose an evidence-based educational plan to incorporate the concept and framework of the Survivorship Care Plan in the nursing education curriculum. **Method:** A literature review was conducted that supported the use of survivorship care plans and tailored education along with the creation of a multidisciplinary team that will help ensure maintenance of the plan in the healthcare organization. The concept and framework of Survivorship Care Plan, elements of SCP, and current evidence-based practice of survivorship care plan will be introduced in the nursing courses. We propose these contents are incorporated in the Medical-Surgical Nursing courses for undergraduate nursing students and in the Advanced Pathophysiology courses for graduate nursing students. The educational strategies will include a brief lecture, review of best practices, and discussion with a case study. We aim to implement the educational plan in 2018. **Evaluation:** Evaluation method will include a quiz and a clinical observation journal. **Implication:** Over the past several decades the number of cancer survivors has increased considerably as a result of improved early detection of first malignancies and effective therapies (McCabe et al., 2013). Cancer survivorship care has emerged as a significant component of oncology care. A quality transition care can optimize the quality of life of cancer survivors. It is imperative to incorporate the concept and current evidence of Survivorship Care Plan in the early stage of nursing education so we can prepare the future nursing workforce in cancer care.

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## PST1 - Poster Session 1

### Grounded Theory Study of Family Happiness Among People Who Live in Urban Community in Bangkok

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#### Abstract

The happiness is important aspiration of all human-being. Accordingly, the happiness indicator strikes researchers to investigate how it impacts health or enhance people to maintain their happiness. United Nation reported that Thailand was rank 36 of 156 countries by happiness index. In addition, the Department of Mental Health, Thailand surveyed among people aged 15 and more, found that 25-59 years was more happiness than others group. The previous study found that habitat, age, education predicted the happiness. Also, the spending time together, caring to each other, relationships, and family satisfaction predict the family happiness among the adolescent to old group. Nevertheless, the gap to fill that how family relationship or interaction relating to family happiness are still vague. Therefore, this study aimed at exploring the family happiness process by applying grounded theory based upon family members' perspectives. After granting IRB from Faculty Medicine Ramathibodi Hospital, the researchers asked permission from participants who live in Urban Community near Ramathibodi Hospital to participate in research. This community located at center of Bangkok, Thailand and the dwellers mostly received universal coverage for health expenditure. The participants included 13 family members and were interviewed about 30 minutes-1 hours. The researchers used Strauss and Corbin method for the data analysis and this simultaneously occurred when collecting data until achieving data saturation. The researcher team discussion to gain agreement for categories emerging from the data. Then the categories and sub-categories were bring to participants to gain credibility as member checking.

The results shown the participants described the meaning of family happiness was to live together, care to each other, and not to have money problem. Accordingly, the core category reflecting family happiness named living together without money problem explain how family members be happy. This consists of four stages: 1) being close connection, 2) caring to each other, 3) being steady of finance, and 4) sense of community integration. These occurred along with coping the participants used when faced stress situation. Stage 1, the participants described that the family members were close connection by spending time together and talking friendly to each other. They also expressed that martial relationship is important to maintain good connection among them. They necessarily made a good conversation such as not argument one another for good family atmosphere. This might indicate that the family relationship and atmosphere are significant in family happiness in the first stage. The caring to each other found in the second stage. The participants mostly described that the family members have to share physical and emotional strain, understand other's situation, and replacing other's duty as a family member. The participants expressed that they help one another to take care of sick member, give encouragement if need. Furthermore, they protect dangers for family members especially, teaching their children to protect themselves from drug abuse.

In third stage, being steady of finance: the participants said that the family happiness depended on how they balance between income and expense. The majority of participants were low-middle class of social economic status. Moreover, they prioritized the financial problem that influence the family happiness. They described that it was necessarily to manage money to balance each month by saving money and planning ahead for future expenditure. In the fourth stage, sense of community integration: the participants expressed that they conformed themselves to fit in the community by giving souvenir to neighbors, joining social activities, and giving suggestion to key persons in the community. Consequently, the participants acquainted to each other. Sometimes they asked for help from neighbors. These two stages of family happiness might indicate the social determinant factor influencing family happiness.

In conclusion, the family happiness was dynamic process that can be up and down magnitude of happiness. It was not stable based upon the coping methods the family members used. The participants mostly used adaptive coping to deal with stress when over time. The first-two stage represent the family relationship, atmosphere, and caring among family members that can impact on family happiness. Another two stages reflect social determinant factors that also invade in family happiness. Understanding of the family happiness process can assist to develop intervention to enhance people living with family gaining optimal happiness as possible. Accordingly this can guide nurses to develop nursing practice curriculum for family nurse practitioner.

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## PST1 - Poster Session 1

### A Collaboration Challenge: Improving Processes for Immersion Experiences in BSN Programs

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#### Abstract

The culmination of the BSN nursing student's clinical experience is the immersion experience. In a Midwestern region of the US, the numbers of student placements for immersion experiences has been growing to meet the demand for nurses. Each of these students requires a preceptor. An established cooperative group of nursing school and clinical site representatives determined to collaborate to find more preceptors. The group identified a task force of their peers with equal representation from schools and clinical sites. This Task Force developed ground rules of respect and transparency as they deliberated their purpose and plans.

Preliminary meetings were focused on identifying the barriers experienced by both the schools and the clinical sites in finding preceptors. Three areas were identified within the realm of influence of this group:

1. The scheduling process: coordinating the preceptor and student schedules
2. Faculty involvement
3. The evaluation tool for the immersion experience

The problems identified in these three areas are summarized below:

**SCHEDULING:** Issues with scheduling were separated into three groups: school issues, student issues, and preceptor/clinical site issues

The school determined the numbers of hours required, the timeframe within which the hours must be completed, and the scheduling of conflicting classes/events. Each of these impacted the scheduling process. The student issues included conflicts in their schedule from a variety of activities, anxiety related to communication, and the pressure of scheduling all their shifts. The clinical site and preceptors were required to work around the school's schedule, meeting the clinical hours required by each school. The preceptor was in high demand both for students and new hires. The preceptor work schedules were often created up to eight weeks before being contacted by the student.

**FACULTY:** Faculty involvement varied among the schools represented. There was not a standard of engagement or of numbers of site visits required during the immersion experience. The communication with the students and preceptors both in quality and quantity was also varied. Some schools provided very structured plans for faculty while others did not. The evaluation involvement by the faculty and preceptor was also not standardized among the schools.

**EVALUATION:** Each school provided their objectives and written instructions to the preceptor based upon their approved curriculum. Again, these were not standardized, having between 5 and 14 objectives which the preceptor and student were expected to meet. The instructions given the preceptors came from the faculty, the school, and/or the students.

The Task Force presented their recommendations in phases. Report out was given firstly to the larger collaborative group. Once approved, the recommendations were placed before the executive clinical leader group and the executive educational leader group for approval. Each of the recommendations were approved and were then implemented as a trial at a large academic medical center.

The recommendations included standardization in all three areas:

**SCHEDULING:** Once sites were approved, the student would contact the preceptor with the expectation of following the preceptor's schedule. Conflicts in the student's schedule were first reviewed by the school then if necessary, the school would request an additional preceptor. This eliminated students and faculty soliciting preceptors, and attempting to accommodate the student's schedule rather than the preceptor's schedule. If a conflict arose because of a preceptor absence, the clinical site would locate a substitute preceptor.

**FACULTY:** Faculty attended an orientation to the clinical setting, its policies and procedures related to student immersion experiences, and to the tools/ guidelines developed with associated expectations. Faculty contact information was collected and provided directly to the clinical site and the preceptor. Expectations to engage the preceptor, student, and preceptor-student dyad during rounds a minimum of 1-2 times/40-50 hours of clinical were made clear.

**EVALUATION:** An evaluation tool was created, based upon the BSN Essentials (2008) listing four goals with supporting competency statements. A Likert scale was developed using a DASI scale: Dependent-Assisted-Supervised-Independent.

These processes will be implemented city-wide this fall and evaluations collected from students, faculty and preceptors. Evaluations from the pilot are still being processed and will inform the work going forward, in a continuous improvement process.

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## PST1 - Poster Session 1

### Benefits of Collaborative Practice Partnership: A Capstone Experience in the Perioperative Settings

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#### Abstract

The nursing practice workforce in the United States is changing and projections are predicting little to no growth over the next decade. This creates challenges when trying to recruit nurses to specialized practice setting, but it becomes especially difficult when recruiting specialty areas such as in the operating room. Most baccalaureate nursing education programs have little exposure to the perioperative area. As nursing leaders collaborated, an innovative educational program was developed between a College of Nursing and a Magnet Hospital to serve as an academic-service partnership to provide a potential workforce for this practice setting. The program allows students to work in a complex and technologically advanced area, gain familiarity in the operating room culture, acquire knowledge, critical thinking skills, and gaining confidence to transition into the role of the perioperative nurse.

The internship program provides student growth opportunity to determine if the student is a good-fit for the Perioperative environment yielding institutional cost saving related to orientation. This academic-service partnership, based upon a curriculum and objectives have been replicated over the past two years with 21 students. Each student paired with an expert clinician in the operating room. Goals are clearly set forth and monitored through reflective logs and competencies. Using a rubric, evaluations were completed by the student, preceptor, and faculty member. This triad formatively evaluated the experience and formative feedback was provided throughout the semester.

This unique 200 hour Perioperative internship demonstrated the shared vision and collaborative relationship between academia and practice. A formalize relationship has been developed to meet the students' educational needs and the practice setting needs leading to employment and admittance into an OR fellowship for graduate nurses. This program has yielded successful hiring and retention of new graduate nurses entering the Perioperative fellowship program with an approximate institutional orientation cost saving of greater than 100,000 dollars.

As partners, the college and hospital are committed to developing the potential of each student nurse to benefit the nursing profession and provide nursing excellence. There is a harmonious sharing of knowledge, a culture of trust between partners, working collaboratively to develop and implement the program in order to educate future nurses with a smooth transition in the perioperative area.

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## PST1 - Poster Session 1

### The Future of Nursing Education: Multidisciplinary Community-Engaged Research for Undergraduate Nursing Students

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#### Abstract

**Background:** An aging population, coupled with increased demands for access to care, are taxing the US healthcare system and helping to create shortages of health professionals, including Registered Nurses (RNs) (American Association of Colleges of Nursing [AACN], 2017; Jurascheck, Zhang, Ranganathan, & Lin, 2012). Further exacerbating the problem, the number of nursing faculty anticipated to retire is expected to rapidly increase in the next decade (AACN, 2017).

The Institute of Medicine has found that nursing schools need to double the number of individuals who are doctorally prepared to create an adequate pipeline of RNs (Institute of Medicine [IOM], 2010). In order to meet the growing need for doctorally prepared nursing faculty, nurses must be encouraged and supported to pursue the PhD. Programs aimed at increasing interest, preparation, and experience in nursing research have facilitated increased interest in graduate programs (Burkhart & Hall, 2015) and an increased number of undergraduate nursing students go on to pursue doctoral education (Mentes, Cadogan, Woods, & Phillips, 2015). However, undergraduate nursing students often find the components of research taught in traditional classes difficult and hard to grasp (Niven, Roy, Schaefer, Gasquoin, & Ward, 2013).

Hands-on research experiences can give undergraduate nursing students an opportunity to engage in interdisciplinary learning opportunities (Slattery et al., 2016). For example, an interdisciplinary undergraduate program in health promotion research that included mentors and mentees from both the biological and social sciences demonstrated high levels of student engagement and positive attitudes about interdisciplinary approaches (Misra et al., 2008). To our knowledge, no such multidisciplinary program has been developed with nursing students while also taking a community-engaged approach. Community-engaged research and learning, when combined with nursing education and practice, can provide additional benefits to nursing students. Students are able to encounter important relevant topics they might not have had the opportunity to experience in other clinical settings including: cultural-relevance, social justice issues, and community partnerships (Francis-Baldesari & Williamson, 2008). By exposing undergraduate nursing students to social science and historical methodologies, we hope to encourage undergraduate nursing students to approach communities in new ways with increased sensitivity for historical and cultural barriers that may shape disparate health outcomes.

**Purpose:** The purpose of this study is to describe the student experience and educational impacts of a year-long multidisciplinary mentored community-engaged research experience on undergraduate nursing students' learning, professional development, cultural sensitivity, and career goals.

Specific Aims:

- 1) To explore students' overall experiences with the community-engaged research process.
- 2) To assess ways in which their involvement in community-engaged research and the community affected the ways in which they think about individual health and the broader social context in which it is shaped.
- 3) To assess how exposure to multidisciplinary, community-engaged research at the bachelor's level may have encouraged the students to pursue graduate study in nursing.
- 4) To explore whether diversifying the research experience to include community engagement and multidisciplinary mentoring increases, among BSN graduates, cultural sensitivity and/or a desire to work in underserved communities.

**Design:** This is a qualitative, exploratory study design, based on semi-structured interviews conducted with undergraduate nursing students. Student participants were involved in a year-long multidisciplinary mentored research experience based in a local African-American community.

**Mentored research experience:** The sample includes seven third-year, undergraduate BSN students, former students of the first author, who expressed interest in involvement in maternal-child health research projects. The students participated in a mentored research experience with two community-engaged research projects focused on maternal-child health over the course of one year. The students were trained in social science research methods including semi-structured interviewing and survey data collection. The students were then involved in every stage of the project including: initiating the informed consent process with participants, conducting qualitative interviews, collecting survey data, analyzing data, and dissemination of results through presentation of research findings in poster format at two conferences. Therefore, the students were introduced to a community-engaged multidisciplinary project. In addition to being involved in the research process, they also spent time in the local community and were able to see firsthand how health and health inequities are manifested, providing them with an opportunity to see the social determinants of health at work.

**Methods:** Data collection will include a brief interviewer-administered questionnaire to assess sociodemographic information. Individual interviews using a semi-structured interview guide will be used to explore student's experiences, attitudes, and future career goals. A trained graduate student will collect and de-identify data for the investigators. The interviews will be digitally recorded. Verbatim transcription of audio recordings will be conducted by members of the research team.

**Planned Analyses:** Participant's responses to the brief questionnaire will be entered into a spreadsheet and summarized. A constant comparative method (Strauss & Corbin, 1990) will be used to identify emergent themes relevant to students' overall experiences and their conceptions regarding social determinants of health (Aims One and Two). Qualitative content analysis (Elo & Kynga, 2008) will be used to assess students' responses regarding future educational goals and desired practice settings (Aims Three and Four). This work is in progress. Data collection and analyses are anticipated to be completed by October, 2017.

**Implications for Education:** Results may help future efforts to foster student engagement in research and increase nursing student interest in pursuing doctoral degrees. Participation in multidisciplinary community-engaged research experiences may have the potential to stimulate interest

in graduate nursing program enrollment. Encouraging students to approach communities in new ways with increased sensitivity for historical and cultural barriers that may shape divergent health outcomes is critical. This approach may be an important and effective strategy for improved patient care, reduction of health disparities via culturally sensitive care, and increase numbers of nursing faculty to keep up with demand.

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## PST1 - Poster Session 1

### Doctoral Nursing Graduates Lived Experience of a Virtual Mentoring Program and Building Upon the Mentoring

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#### Abstract

Faculty mentoring of doctoral nursing students is at a critical juncture, as a lack of mentors and experienced researchers exist to assist the next generation of doctorally prepared nurse educators (Lach et al., 2013; Lasater et al., 2014; Maritz & Roets, 2013; Rand & Pajarillo, 2015; Welch, 2017). This lack of mentors and experienced researchers is due to the increased number of experienced nurse educators retiring and a decreased number of nurses pursuing graduate and doctoral degrees in nursing education (Lach et al., 2013; Lasater et al., 2014; Maritz & Roets, 2013; Rand & Pajarillo, 2015; Welch, 2017). This shortfall of researchers to prepare the next generation of nurse education, nationally as well as at “home institutions,” is happening simultaneously with the growth of doctoral programs in nursing, resulting in an increased demand on a limited number of nurse researchers and mentors (Lach et al., 2013; Maritz & Roets, 2013; Welch, 2017).

The future research of doctorally prepared nurse educators is one of the most important factors that will affect the production of nursing education knowledge (Maritz & Roets, 2013; Welch, 2017). Therefore, a renewed and robust focus on mentoring within doctoral nursing education is needed to support not only doctorally prepared nurse educators but also the quality of future research in nursing education. This renewed and robust approach to mentoring in doctoral nursing education may include virtual mentoring. Virtual mentoring is a structured relationship between an experienced and novice individual in which the mentoring takes place through the utilization of technology as a means to add value to the lives of those involved (Clement, 2014; Maritz & Roets, 2013; Welch, 2017).

Research regarding virtual mentoring has primarily been done in disciplines outside of nursing while a dearth of virtual mentoring research findings exists in nursing education (Maritz & Roets, 2013; Nowell, White, Mrklas, & Norris, 2015; Rand & Pajarillo, 2015; Welch, 2017). Especially, in relation to the virtual mentoring support offered to doctoral nursing students (Lasater, 2014; Maritz & Roets, 2013; Welch, 2017), and how graduates build upon the mentoring experience. Therefore, there is a need for future research on the lived experiences of doctoral nursing graduates who participated within a virtual mentoring program and how the graduates build upon the mentoring experience. The purpose of this study is to explore the lived experiences of doctoral nursing graduates who participated within a virtual mentoring program.

The doctoral graduate’s lived experience of participating in a virtual mentoring program is one way to explore the virtual mentoring environment. Mentoring doctoral nursing students is an important aspect to assist in their development as future scholars (Lach et al., 2013; Maritz & Roets, 2013). With the lack of mentors and researchers at home institutions to assist the next generation of doctorally prepared nurse educators (Lach, et al. 2013; Maritz & Roets, 2013; Rand & Pajarillo, 2015), virtual mentoring may assist in the creation of a more robust mentoring environment. Therefore, to investigate the doctoral graduate experience may assist in providing insight regarding their experiences within a formal virtual mentoring program.

A descriptive phenomenological plan using Husserl’s (1970) approach will guide this research as this approach is an appropriate methodology to illustrate virtual mentoring as a lived experience in a subjective manner. The study will be conducted utilizing a doctoral nursing education program in nursing education at a university in the southeastern portion of the United States. Graduates who have participated within a virtual mentoring program will be invited to participate in this study. Methodological rigor will be obtained by following established guidelines of Lincoln and Guba (1985) and data analysis for the study will follow Colaizzi’s (1978) phenomenological framework to establish the essential meaning of each participants’ experiences.

The goal of this study is to gain insight from doctoral graduates of a nursing education program and their lived experiences within a virtual mentoring program as well as how mentoring has assisted their professional lives and the mentoring of others. Previous research has addressed only the lived experience as a current doctoral student of a virtual mentoring program. Furthermore, a regional Virtual Mentoring Consortium for Doctoral Nursing Education (VMC-DNE) could be established with a group of doctoral programs based upon the findings of this research to influence the development of further virtual mentoring programs in doctoral nursing education. The VMC-DNE could serve as a national model for other stakeholders with similar research and mentoring goals for their doctoral nursing students.

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## PST1 - Poster Session 1

### Readiness to Integrate Evidence-Based Practice: What Is the Nurse Educators' Role?

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#### Abstract

**Introduction:** Evidenced-based practice (EBP), identified by the ANA (2010) as a standard of professional nursing practice and by the IOM as a core competency for all healthcare providers (Greiner & Knebel, 2003), remains an integral component of clinical nursing practice involving the utilization of the best available evidence in problem-solving and clinical decision-making concerning patient care (Melnyk & Fineout-Overholt, 2015). A recent multifaceted single-site study explored parents' perceptions of care, infant outcomes, and nurses' perceptions of the organizational culture and readiness to integrate EBP in a 56-bed level III NICU. This poster focuses on the nurses' perceptions of the organizational culture and readiness to integrate EBP over time. Aims of this portion of study included gaining a deeper understanding of nurses' perspectives and ways to improve clinical nursing practices in the NICU.

**Review of Literature:** Before an evidenced-based clinical practice change can be implemented, it is important to identify strengths and barriers within the system (Melnyk, Fineout-Overholt, & Mays, 2008). In a correlational study, Gale and Schaffer (2009) examined the nurses' perceptions of influencing factors and barriers of EBP integration. The barriers identified most frequently by this sample of nurses and managers ( $n = 92$ ) were insufficient time, lack of staff, and not having the required equipment or supplies whereas the top three reasons to adopt evidenced-based changes in clinical practice included personal interest in the practice change, personal valuing of the evidence, and avoiding risk of negative patient consequences (Gale & Shaffer, 2009). Additionally, unlike the managers, a greater percentage of the staff nurses identified limitations within the practice setting and inability to access information regarding EBP as barriers to the integration of EBP. Analysis of the open-ended responses revealed both the staff and the managers agreed on several issues: too many changes at the same time, the Joint Commission or state mandated requirements viewed as negative motivators, and the absence of resources all perceived as major barriers to successful implementation of practice changes (Gale & Shaffer, 2009).

In a correlational study involving a small group of healthcare professionals ( $n = 58$ ), Melnyk, Fineout-Overholt, Giggleman, and Cruz (2010) utilized the OCSIEP scale (Cronbach's  $\alpha = .92$ ) in an effort to examine relationships between cognitive beliefs, EBP, its implementation, organizational culture, cohesion, and job satisfaction. Statistically significant relationships were found between the perceived organizational culture and readiness to integrate EBP ( $M = 79.76$ ,  $SD 14.93$ ; range 42-116) and EBP beliefs as well as EBP implementation. These healthcare professionals implemented EBP into their nursing care to a greater extent and had stronger positive beliefs about the value of EBP (Melnyk et al., 2010).

Hauck, Winsett, & Kuric (2012) assessed nurses' belief of the importance of EBP, how frequently EBP was incorporated in their daily nursing practice, and the nurses' perception of organizational readiness to integrate EBP after the implementation of an EBP strategic plan. Organizational culture and readiness were measured on the Organizational Culture & Unit Readiness for Integration of Evidence-based Practice Survey (OCSIEP) adapted to meet their needs. Hauck et al. scored items as 3 scales: items 1-14 and 16 (referred to as OCS-C, Cronbach  $\alpha 0.81-0.92$ ) measured culture of the organization. Items 15 and 17 addressed providers as EBP champions and decision makers; item 18 measured the organizations readiness to integrate EBP, and item 19 measured the organization's movement towards EBP. Although there were no statistically significant differences noted in the nurses' characteristics over time, there were significant gains made over time in the nurses' perceptions of the importance of EBP, their perceptions of the organizational readiness, the frequency of EBP integrated into clinical practice as well as movement towards EBP (Hauck et al., 2012).

In a scoping review of the literature focused predominantly in nursing and addressing organizational barriers to the implementation of EBP (49 articles), Williams, Perillo, and Brown (2015) identified five broad major organizational barriers. Most frequently reported was workload which included issues of staffing, patient acuity levels, increases in patient-based tasks, and staff identifying 'no time' to participate in EBP activities cited in 38 of the 49 articles. The absence of management support of EBP activities (cited in 37 of the 49 articles) was reported nearly as often as workload. A lack of resources particularly in terms of easy accessibility from the patient care areas was cited in 28 of the 49 articles; this also included issues of how to access and interpret the empirical evidence. The fourth barrier identified was lack of authority to change practices (in 22 articles). Staff often did not feel their voice was valued nor did they have power to make changes which may positively impact patient outcomes. Lastly, workplace culture resistant to change was identified in 14 articles where rigid, inflexible workplaces discouraged innovation and thinking outside the box. A disconnect between staff professional goals and the organizational goals were also cited here. All of these barriers impact staff's ability to use EBP or explore ways to implement EBP.

Saunders and Vehviläinen-Julkunen (2016) reviewed 37 articles to determine factors supporting nurses' readiness to implement EBP and competencies. The authors reported that overall the nurses were familiar with EBP concepts although inconsistencies were noted in their interpretation; education was also associated with familiarity. The majority of nurses had favorable attitudes and beliefs towards EBP, yet rarely took part in EBP activities citing the nurses wanted additional education and skills to successfully incorporate EBP in their clinical practice (Saunders & Vehviläinen-Julkunen, 2016).

Studies highlight the importance for an organizational culture supportive of EBP with adequate resources including staff support, adequate staffing, time, easy accessibility to resources and information regarding EBP, an understanding of nursing research and working knowledge of EBP to successfully retrieving, understand the research, critique and synthesize empirical evidence. A strong relationship between perceived organizational culture and readiness to integrate EBP was clearly identified (Melnyk et al., 2010). "System-wide implementation of EBP occurs when the evidence is strong, the context is receptive to change, and the change process is facilitated through a supportive infrastructure" (Fineout-Overholt & Melnyk, 2005, p.28).

**Method:** The OCSIEP-UNIT is intended to measure nurses' perceptions of organizational culture within the NICU and their readiness to integrate EBP. Approximately 100 NICU nurses were invited to participate in the online study. The survey remained available to staff for approximately 5 weeks during each collection period (at the onset, at 6 months, and 12 months.) Staff were provided a hyperlink to access the study from their personal or work computers. No identifying information was collected. The OCSIEP-UNIT consists of 25 different scored items within 19 substantive items. Three rating scales are used including a 5-point rating scale ranging from "not at all" to "very much" or "not ready" to "past

ready and onto action" while questions related to frequencies ranged from "none" to "100%." The OCSIEP-UNIT generates a total score ranging from 25 to 125; scores closer to 125 reflect greater organizational readiness for or movement towards a culture of EBP (Melnyk et al. 2010). A mid-mark score of 75 indicates the need for an intervention to further develop the culture to embrace EBP. Higher individual item scores indicate greater degrees of perceived readiness to integrate EBP into their clinical nursing practice.

**Results:** Responses rates varied between collection periods of baseline, 6 months, and 12 months (36, 51, 24 respectively). Although overall scores increased steadily over time, there were wide variations in the nurses' perception scores ( $M=78.54$  at onset, range 36-122;  $M=81.37$  at 6 months, range 54-118;  $M= 85.42$  at 12 months, range 54-111). Similarly, individual mean scores increased over time for both rating the NICU's readiness to implement EBP (3, 3.35, 3.46 respectively) and movement in NICU towards an EBP culture (3.05, 3.28, 3.46 respectively).

**Conclusion:** The wide range of nurses' perceptions of the organizational culture and their readiness to integrate EBP at each collection period requires further investigation as to possible barriers and perhaps need for further education. So what is the nurse educators' role? The significance to the future of nursing cannot be underscored. It is essential that nurse educators recognize the implications of this study and incorporate various strategies in the clinical practicum as well as classroom activities to facilitate a deeper understanding of how to integrate EBP into clinical practice. Strategies such as teaching how to evaluate the level of the evidence and formulate a PICO question (Levin & Chang, 2014), journal clubs (Gardner, Kanaskie, Knehans, Salisbury, Doheny, & Schirm, 2016), participation in research activities (Ayoola, Adams, Kamp, Zandee, Feenstra, & Doornbos, 2017), and redesigning courses to effectively increase students' knowledge, skills, and attitudes towards EBP (Ruzafa-Martínez, López-Iborra, Barranco, & Ramos-Morcillo, 2016) may enhance the learner's ability to successfully implement EBP and ultimately improve patient outcomes.

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## PST1 - Poster Session 1

### Social Isolation and Emotional Loneliness in Older Adults With Congestive Heart Failure

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#### Abstract

Social isolation as described in the epidemiological literature focuses on demographic and personal data such as: marital status, employment, religion and education. The psychological work is focused to a much greater extent on Maslow and Erickson's constructs and the human need to feel connected or belong. Peplau's research on the antecedents of emotional loneliness has added to this content and includes: termination (end of a close relationship), separation (apart from loved ones), status change (role change), developmental (quality of relationships), demographics (work/home environment and personality).

The impact of social interaction or relationships becomes more important than numbers or mere superficial ties. Someone can be living with a partner and yet still feel isolated due to internal conflict or change in self image. Over extended periods, loneliness develops as well as persistent alterations in immune system function and stress response. A discrepancy often occurs between an individual's perceived versus actual supportive relationships. It is also important to make the distinction between maladaptive isolation and healing time alone. Adjustment periods to environmental change, role identification or life phase/situation may require concentrated thinking and limited social contact in so that negative thinking is not perpetuated.

Studies from the literature show a definitive link between social isolation, disease progression and increased morbidity. This is particularly the case with the older adults population diagnosed with heart failure. Depression frequently accompanies comorbidities such as CHF, but is not readily identified in many situations since disease trajectories are similar in both. Health care providers/teams should assess symptoms which may be seen in **both** diagnoses and treat based on evidence based protocol. Common symptoms associated with CHF include: fatigue, low energy levels, appetite change, peripheral edema, cognitive impairment and decreased motivation. Symptoms of depression include: sad affect, loss of interest/appetite, low energy, fatigue, sleep disturbance and cognitive impairment. Overlapping signs and symptoms can make differentiation between clinical problems difficult to determine.

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## PST1 - Poster Session 1

### The Evidence-Based Practice Fulcrum: Balancing Leadership and Emotional Intelligence in Nursing and Interprofessional Education

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#### Abstract

To date, literature is emerging regarding leadership and emotional intelligence (EI) within interprofessional education (IPE). Likewise, a strategic revolution has awakened throughout healthcare organizations as evidenced based, patient-centered care has received new prominence that requires effective leadership concomitant with the essential attribute of emotional intelligence (EI) (Edbor & Singh, 2016; Paren, 2015; & Tyler, 2015). Nursing education and other IPE programs are beginning to work collaboratively to address this revolution by preparing emotionally competent leaders who are capable of developing a professional reflective practice. Factors found to facilitate and influence leadership development include attitude, motivation, failures, intentions, individual self-reflection, and emotional intelligence (Resnick, 2016; Galuska, 2014; & Gallagher-Ford, 2014). And, the sense of self-confidence will be on the rise as EI-infused leaders will seek to; identify their own skills, strengths, weaknesses, and clarify their own values and priorities in setting high standards (Cox 2017). Grande (2017) concurs that leadership and EI characteristics accurately garner emotions in self and others; promotes the use of emotions to facilitate reasoning; provides an understanding of emotions in self and others; and serves to manage emotions in self and others. Also, there is a growing recognition that EI-infused leadership is a vital quality that must be cultivated in organizational support across organizational levels. Combining EI-infused leadership development with organizational strategies within this evolving healthcare climate contributes to the implementation of an evidence-based practice (EBP). The support of advance practice roles is essential in minimizing barriers, and maintaining a level of engagement throughout the EBP implementation process (Aarons et al 2017; & Patterson, Mason, & Duncan, 2017). Moreover, EI positively impacts clinical nurses and other interprofessional practitioners both personally and professionally. The EI-infused leadership roles enhance patient safety, outcomes, and efficient work processes (Grande, 2017). Notably, the critical impact at the point of service by clinical leaders who demonstrate emotional intelligence challenge ineffective work processes, and inspire others to act (Gatson Grindel, (2016). Recently, Mayer, Oosthuizen, & Surtee (2017) found that deeper insights into the EI of South African women leaders was associated with effective leadership qualities, creativity, and innovation. And, that emotional intelligence serves as an important source for women leaders to increase leadership qualities, as well as empathetic communication within the challenges of Higher Education workplaces. In addition, Rivero & von Feigenblatt, (2016) set forth a high priority challenge for universities/colleges to expand their curricula to better prepare future corporate leaders with the inclusion of EI initiatives for both undergraduate and graduate curricula. Responding to the challenge, nursing and other IPE educators are readily integrating curriculum to consider EI-related competencies to build self-awareness and professionalism among students (Haight et al, 2017). The overarching academic and clinical practice goal is to generate or improve EI-infused leadership among nursing and other inter-professional practitioners for the future of evidenced-based, patient-centered care throughout global healthcare systems (Prufeta, 2017; & Wang, 2016).

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## PST1 - Poster Session 1

### Using Photo Journaling to Develop Affective Outcomes in Nursing Education

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#### Abstract

**Background:** Ways of knowing may be approached from various epistemological paradigms. Where the realist may define knowing as a cognitive function, the non-realist will expand ways of knowing to include the affective components of feelings and socially constructed meanings (Garrett & Cutting, 2014). Developing and utilizing strategies and methods that give awareness to feelings and meaning to experiences of nursing students which enhance affective learning has been difficult in curriculums necessitating large amounts of cognitive knowledge (Ondrejka, 2014). Based on the well documented qualitative technique of Photo Voice that (Woodgate et al, 2017). Photo journaling provides faculty and students an opportunity to bridge cognitive aspects of clinical experiences with the affective.

**Method:** Eighteen nursing students were given a photo journal assignment as part of a service learning study abroad experience in Nicaragua. Each day of the ten-day trip, students were provided a prompt that required them to take a photograph and journal about their chosen picture. (Gilliland et al, 2016) These prompts were verbally announced at the beginning of the day and were chosen to enhance self-awareness. Examples include; Submit a picture that reflects how you are feeling and title it. Write and reflect on your expectations and hopes for this trip. A second example is: Submit a picture that reminds you of your family and your own community and title it. Write and reflect on what is at stake for these patients, their families, and their community. Two weeks following the return from the trip students submitted their photo journals in electronic form. Focus groups were utilized to explore the students experience and the effect of the photo journal on their affective learning.

**Findings:** Our experience and student's feedback confirm that photo journaling provided a learning activity that actively engaged the students in self-reflected affective learning. One student summed it up noting, you had to go deeper and see what was really going on and that the picture could communicate until you could find the words.

**Conclusion:** Student produced meaningful photographs during clinical experiences that are combined with journaling exercises develop personal awareness of caring as student come to know more about themselves through self-exploration and communication.

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## PST1 - Poster Session 1

### Assessing the Need for a Multidisciplinary Patient and Family Education Pediatrics Inpatient Rehabilitation Setting

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#### Abstract

Patient and family education is a critical component of successfully managing the complex pediatric patient. The literature reveals that a comprehensive patient/parent education program, beginning upon admission, enhances staff engagement and can transform care at the bedside. Further, providing early access to multi-modal education and emotional support decreases the anxiety of parents at the time of discharge when they find themselves thrust into the new role of medical caregiver. Despite the tremendous need for research and best-practice models in this area, there is a gap in the literature describing comprehensive education programs implemented prior to discharge for medically fragile children living with complex disorders.

Due to a number of converging factors (including discharge delays, patient/family satisfaction, standard of care, best practices, and transformative bedside care) our pediatric acute rehab facility began to identify the need for a formal education program. To better identify specific and quantifiable needs, an ad hoc multi-disciplinary committee (nursing, child life, respiratory therapy, social work), with the support of nursing leadership, implemented a qualitative and quantitative assessment of education and support. We surveyed all staff nurses, nursing assistants, parents, and other allied disciplines (child life and respiratory therapy) to determine perceived education and support needs, learning preferences, teaching styles, and other related factors. Review of existing educational materials was also part of the assessment. Results across all stakeholders overwhelmingly favored early access to multi-disciplinary, multi-modal education for patients and parents. As expected, learning and teaching styles varied considerably. Further, review of existing educational materials revealed an area in significant need of revamping and consideration. Findings were presented to nursing management and other members of the leadership team and the committee was given permission to create a pilot program.

The objective of the pilot education and support program (beginning Q2 2017) is to focus on the most common topics of education including NG placement, medication administration and trach/vent care on the inpatient infant and toddler unit. The goals of the pilot program are to 1) decrease length of stay, 2) improve patient/family satisfaction and other measurable outcomes and 3) create a standardized process for parent/patient education that can be applied to other education needs. Upon completion of the 6 month pilot, the program parameters will be expanded to include other educational topics needed for self-management at discharge (including wound care and self-catheterization) and broadened to address the school-age/adolescent population.

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## PST1 - Poster Session 1

### Effectiveness of Using the Peanut Ball to Shorten the First and Second Stage of Labor

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#### Abstract

In 2011, one in three women in the United States gave birth by cesarean delivery (The American Congress of Obstetricians and Gynecologists, 2015). During the laboring process, it is a common occurrence for women to remain immobile (Zwelling, 2010). Obstetrical interventions such as, fetal monitoring, oxytocin inductions, and epidural anesthesia can interfere with a patient's mobility and position changes (Zwelling, 2010). When laboring mothers remain immobile, it decreases the fetus' ability to flex, engage into the pelvis, rotate into position and descend (Zwelling, 2010). Studies have found that women who were positioned in upright positions as compared to women who remained in flat or recumbent positions benefited with a shorter first stage of labor by an average of 66.48 minutes (Zwelling, 2010).

One of the most common reasons for a cesarean section is "arrest of labor" also known as failure to progress or midpelvic arrest. It is estimated that between 2002 and 2008, 10% of first-time mothers had cesarean sections for failure to progress (Boyle, Reddy et al. 2013). Of that 10 %, 40% had cesarean sections before they had even reached 5 cm dilation (Boyle, Reddy et al. 2013). Safely reducing the rate of primary cesarean sections will require different approaches (The American Congress of Obstetricians and Gynecologists, 2015). The American Congress of Obstetricians and Gynecologists (ACOG) suggests increasing a women's access to nonmedical interventions during labor (The American Congress of Obstetricians and Gynecologists, 2015).

Most birthing balls can facilitate a more normal labor progression for ambulatory laboring women. However, when a patient is immobile, due to medical circumstances, initiating the use of a peanut ball might promote positive labor outcomes as well as hopefully reduce the duration of the delivery process. This double birth ball, connected in the middle mimicking a large peanut, is low-risk and a low-cost nursing intervention (Tussey et al., 2015). A randomized, controlled study was conducted to determine whether the use of a "peanut ball" decreased the length of labor and increased the rate of vaginal birth (Tussey et al., 2015). Using the peanut ball promotes spinal flexion, thus increasing the utero-spinal angle (Tussey et al., 2015). This widening of the pelvic diameter subsequently assists in facilitating occiput posterior rotation to a more favorable position for delivery (Tussey et al., 2015). Since there is a lack of evidence-based research on this new intervention the use of the peanut ball affirms the need for further research.

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## PST1 - Poster Session 1

### Associate-to-Bachelor's (ATB) Option: A Collaborative Practice Model

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#### Abstract

The Institute of Medicine (IOM) release a report titled "Future of Nursing: Leading Change, Advancing Health" in 2010 which made a key recommendation related to the educational preparation of nurses. This recommendation called for an increase in the proportion of baccalaureate-prepared nurses to 80% by the year 2020 ("The future of nursing," 2011). As a result of this report, much work has been done within the nursing community to achieve this goal. Current literature presents examples of initiatives that identify barriers to academic progression (Goode et al., 2016; Jones & Close, 2015; Masters, 2015) and provide clear examples of models that promote seamless academic progression (Peltzer, Teel, Cline, & Cromwell, 2016; Perfetto, 2015; Sarver, Cichra, & Kline, 2015; Zittel, Moss, O'Sullivan, & Siek, 2016). Current progress from the IOM's latest report "Assessing Progress on the Institute of Medicine Report: The Future of Nursing" indicates that the proportion of nurses with a baccalaureate degree increased from 49% to 51% between 2010 and 2014 ("Assessing progress," 2016). Continued creative efforts are needed. A University has partnered with two Community Colleges within the North East region of Maryland to initiate a collaborative practice model which supports the academic progression of Associate degree nurses. The Associate-to-Bachelor's (ATB) Option was established with the common goals of (a) providing multiple pathways to a Bachelor of Science in nursing (BSN) degree, (b) providing guided mentorship and support at the University and Community College, and (c) decreasing existing barriers to academic progression.

A degree completion curriculum with three available entry points is the foundation for the ATB Option. The curriculum strategically provides multiple pathways for nursing students to complete a BSN. Students are awarded 60 credits for completed Associate degree nursing (ADN) courses and 30 credits for current RN licensure. These combined 90 credits are applied to the total 120 credits required for the BSN degree. Therefore, the majority of credits for the degree are taken at the Community College. The remaining 30 credits of BSN courses are completed at the University. Additional prerequisite courses are minimal, and include a General Chemistry with a lab and Nutrition. These two courses, if not already taken, usually amount to a total of 7 additional credits outside of the requirements for the ADN program. University courses are taught in a convenient location and format to increase accessibility. The University utilizes a satellite campus which is situated directly across the street and within 20 minutes driving distance from each Community College, respectively. In addition, course delivery throughout the ATB Option is a mixture of traditional face-to-face, hybrid, and online. Students are also eligible to apply for financial aid due to established consortium agreements. Lastly, the curriculum is configured to be the same for all degree completion options that are offered to students (ATB and RN to BS) which allows greater flexibility.

Students may join the degree completion options through multiple entry points. The first is "ATB 1.0" which is characterized by concurrent BSN coursework that is started in the first semester of the ADN program. The second is "ATB 2.0" which utilizes the same concurrent BSN coursework, with the exception that it is started in the summer after the first or second semester of the ADN program. "ATB 2.0" also gives an opportunity to LPN to RN transition students to apply. The third opportunity students have is to start BSN coursework after they graduate from the ADN program with the "RN to BS" program. Students interested in this can apply for contingent acceptance prior to passing the NCLEX-RN examination during their last semester of the pre-licensure program.

An overriding principle of this collaborative practice model is to provide guided mentorship and support for students at both the University and Community Colleges. Each academic institution has a designated mentor. The "Degree Completion Coordinator" serves as a resource at the University and the "Academic Progression Coordinator" serves at the Community Colleges. The Academic Progression Coordinator functions in a dual role with time shared at both Community Colleges. Each representative is a liaison for students, faculty, and staff. Collaboration between the institutions is crucial as it results in shared resources, enhanced communication, shared data, and mutual support.

Data is continuously being collected and analyzed throughout this ongoing initiative. It is expected that the results will support a decrease in the existing barriers to academic progression. The measured data that is expected to support this goal includes enrollment, retention rates, attrition rates, and projections for all of the degree completion options. Current preliminary data shows increasing enrollment, high retention rates, very low attrition rates, and significant projections for completion of advanced degrees. Qualitative data is also being collected to determine if this initiative supports an increase in the knowledge, support, and options available to Associate degree nursing students looking to progress educationally.

The collaborative practice model presented is supporting progress toward the IOM goal. Collaboration is not only the key to success, it is essential. An effective partnership between Universities and Community Colleges can expand available resources and decrease barriers within the communities served. This continued project and resulting data will show the overall impact within this targeted region of the United States. Initial data is supportive and project completion data could have significant implications for the nursing profession.

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## PST1 - Poster Session 1

### Enhancing Skills in Behavioral Health Management

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#### Abstract

With the Affordable Care Act (ACA), Medicaid has become the largest insurer in the U.S. Annual NYS Medicaid funding is approximately \$50 billion. In NYS in 2013 there were 5.79 million Medicaid recipients. In 2014, the Centers for Medicare and Medicaid Services (CMS) approved New York's \$8.25 billion Medicaid Redesign Team (MRT) waiver amendment. The goal of New York's federal waiver, the **Delivery System Reform Incentive Payment (DSRIP)** program, is to reduce avoidable hospital use by 25% through transforming the healthcare delivery system and also the way that health care is paid for. To receive funding NYS DSRIP required Medicaid providers and community-based organizations to form integrated delivery networks called Performing Provider Systems (PPSs). Behavioral Health (BH) is at the core of health care reform in NYS. In DSRIP, BH encompasses both mental health and substance use disorders. Medicaid members diagnosed with BH conditions account for 21% of Medicaid members but 60% of the total cost of care.

Integrating BH into primary care involves transforming the healthcare delivery system and will also require transforming the healthcare workforce. Yet access to care for patients with behavioral health issues has become more limited due to safety concerns especially for students in Nursing Programs.

One approach that can expose healthcare professionals to management of patients with behavioral health issues is Simulation. The NCSBN National Simulation Study: A Longitudinal, Randomized, Controlled Study Replacing Clinical Hours with Simulation in Pre-licensure Nursing Education (2014) noted that there were no differences between the use of 10%, 25%, and 50% of simulation and clinical experiences. Transforming the healthcare delivery system to address the growing need for behavioral health services requires new approaches to workforce development. One approach that can expose students and healthcare professionals to management of patients with behavioral health issues is Simulation. This project describes one innovative teaching approach utilizing a collaborative effort in Simulation with Nursing and Applied Theater programs to develop an educational strategy to promote development of knowledge, skills and attitudes in management of behavioral health issues.

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## PST1 - Poster Session 1

### Nurse Faculty Enhancing Best Practices in the Clinical Setting

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#### Abstract

Nursing clinical teaching is a valued and essential part of nursing education (Roberts & Glod, 2013) and, the clinical learning environment is central to nursing education (Madhavanpraphakaran, Shukri & Balachandran, 2014). Nurse preceptors play a significant role in the clinical education of nursing students and preceptorship is an effective approach to clinical education, assisting students to develop competence and confidence (Madhavanpraphakaran et al., 2014). Preceptors provide direct clinical instruction to students and nurse faculty support preceptors (Dahlke et al., 2016). But, preceptors may not have the necessary knowledge and skills to provide care based on best evidence (Ciliska et al., 2011). Students have noted differences in what they learned at school and how a procedure is performed in real health care settings (Adelman-Mullally, Mulder, McCarter-Spalding, Hagler, Gaberson et al., 2013). Faculty members working with preceptors act as educational resource (Madhavanpraphakaran et al., 2014). Clinical faculty may observe unequal implementation and administrative support for evidence-based practice (EBP) among units and across settings in a health care organization (Hagler, Mays, Stillwell, Kastenbaum, Brooks et al., 2012). They need to play a significant role in nursing practice by collaborating with staff nurses and nurse preceptors to provide an optimal learning experience for undergraduate students (McClure & Black, 2013) and, to ensure nursing care is based on best practices. Clinical faculty can demonstrate leadership skills through collaboration with the staff. Clinical faculty collaborating with nursing staff will enhance student learning and, satisfaction of both staff and students (Adelman-Mullally, et al., 2013). They have the potential to transform nursing units (Adelman-Mullally et al., 2013) by collaborating with staff nurses to ensure safe and quality nursing care. Clinical faculty can challenge the status quo in the clinical setting by providing information and suggestions about new evidence for change in nursing practice (Adelman-Mullally et al., 2013). Nursing students are expected to learn and provide evidence based care, they need to be guided by clinicians who believe in and implement EBP (Hagler, et al., 2012). It is necessary to expand nurse faculty roles in the clinical setting to address nursing care that are not congruent with current best practices in health care institutions.

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## PST1 - Poster Session 1

### Pathways to Progress: Academic Support for Students in Nursing Education Programs

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#### Abstract

The US Bureau of Labor Statistics (2015) projects needs of the RN workforce over the next decade to increase 16% by 2024. Nursing education programs are working to meet the needs of society and are addressing factors contributing to student success in nursing programs. Academic Support Programs (ASP) not only influence program retention and enrollment but have the potential to address the ongoing nursing shortage. The literature supports the advantages of ASP and identifies a variety of factors and strategies for success which include: counselling, tutoring, mentoring and coaching activities. Freeman & All (2017) identified that students may not comprehend the challenges associated with nursing education programs and as a result are not able to recognize their learning needs in sufficient time to achieve academic success in a course. When nursing educators teach students how to learn, the students acquire new strategies to be successful. Beauvais et al (2014) identifies that classroom techniques empower students and may result in academic success. The intent of this presentation is to demonstrate that teaching/learning practices which reinforce student success have the potential to promote retention in nursing programs.

This poster presents the approach of a comprehensive ASP used at a university and provides preliminary outcome data supporting student role development for success. The presentation describes a strategy offered by a university to students who repeated a nursing course due to a failing course grade. Students register for a 3 credit course: Pathways to Progress and take this course concurrently while they repeat the failed nursing course. The Pathways to Progress course reinforces, guides and supports the student to acquire and apply academic skills, strategies to increase confidence levels, study skills and test takings skills. This poster will present course and program outcomes, retention rates, graduation rates & NCLEX outcomes in the student population who failed one nursing course. Outcomes demonstrate the value of additional academic support programs to impact student success and retention.

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## PST1 - Poster Session 1

### LGBTQ Cultural Competency for Nurses

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#### Abstract

The health of lesbian, gay, bisexual, transgender, and queer (LGBTQ) people has recently become a national health priority. The National Institute of Health (NIH) declared LGBTQ communities a health disparity population in October of 2016 (NIH, 2016). Many advances in policy (same-sex marriage, visitation rights, etc.) and societal shifts have allowed for increased visibility of this community in our society, but has healthcare and nursing kept up? In 2011, then Secretary of State, Hillary Rodham-Clinton discussed how LGBT rights are human rights and that health advocates, researchers, and practitioners engage in a "more proactive role in bridging health disparity among the "invisible minority" (Lim et al, 2013, p. 198)". The National Institutes of Health designated the LGBTQ community as a "health disparity population" for research, citing provider knowledge and attitudes as one of the key areas needing further research.

Within nursing curricula and research, heterosexual bias still exists that diminishes LGBTQ nursing care. From 2005 to 2009, only eight out of 5,000 nursing articles were published that focused on LGBTQ health issues (Strong & Folse, 2015). The Department of Health and Human Services found that the LGBTQ population is at an increased risk of suicide, depression, HIV infection, sexually transmitted diseases, obesity, and alcohol and drug abuse (Traynor, 2016). What further exacerbates these health disparities is that LGBTQ patients also face minority stress – "stress that is experienced by individuals from stigmatized social categories as a result of inferior social status (Strong & Folse, 2015, p. 45)". One of the largest barriers to culturally congruent LGBTQ care is the lack of knowledge on LGBTQ people and possible negative attitudes among nurses and providers (Strong & Folse, 2015).

The purpose of this study is to establish a baseline understanding of the knowledge and attitude of registered nurses about LGBTQ people as well as measure the impact of a newly designed educational intervention on their knowledge and attitudes.

The research questions guiding this project are 1) what are the existing levels of knowledge and attitude that inpatient registered nurses have about the LGBTQ community and 2) what is the impact newly designed LGBTQ focused educational intervention on inpatient registered nurses' knowledge and attitudes?

The design of this study is modeled after the original research of Strong et al. It is a descriptive correlational study with a cross-sectional design with pretest/posttest methodology. The design allows for exploration of various variables of demographics and the pre/post test scores on the knowledge and attitudes of LGBT people and health. Variables examined look at their encounters with LGBT people, previous education on LGBT health, age, education level, and nursing experience.

Participants in the study will be informed that their participation is completely voluntary and that they may withdraw at any time as well as confidentiality of their responses. The only perceived benefits for the participants are to broaden their knowledge about LGBTQ and their care of the LGBTQ patient. There are no associated risks with the study other than the potential for moral conflict with the subject data.

The knowledge and attitudes of the registered nurses will be measured utilizing three validated tools – the modified Attitudes Toward Lesbians and Gay Men (ATLG) scale, the Attitudes Toward Lesbian, Gay, Bisexual and Transgender Patients (ATLGBT) scale, and the Knowledge of Lesbian, Gay, Bisexual, and Transgender People KLGBT questionnaire.

Descriptive statistics will be utilized to analyze the demographics of the study participants (mean, standard deviation, and range).

The mean scores of the pretest/posttest will be analyzed through a t-test for comparison of the dependent variable and independent and through the use of ANOVA for more than three independent variables.

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## PST1 - Poster Session 1

### NICU Nurses and Families Partnering to Provide Family-Centered Care

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#### Abstract

The aim of this evidence based practice (EBP) project was to determine how implementing the seven neuroprotective core measures of family centered developmental care will impact the satisfaction of the NICU nurses through new knowledge, skills and families through partnering with care compared to traditional care. According to the American Academy of Pediatrics (AAP) Committee on Hospital Care and Institute for Family Centered Care policy statement made in 2003 family centered care is a method in which medical care is grounded in the principle that optimal health outcomes are accomplished when patients' family members participate in an active role in contributing emotional, social and developmental support (American Academy of Pediatrics, 2003).

In order to accomplish this, NICU nurses needed a firm understanding of the developmental problems associated with the high risk and the premature infant. It was critical that this group of caregivers understands the fundamentals of neurosensory growth of these infants. It is also vital that they understand how the intrauterine environment protects the infant from being exposed to the fluctuation of an unstable extrauterine environment.

The Phillip's Neonatal Integrative Developmental Care Model was the model that we used for implementation. The seven neuroprotective core measure for family-centered developmental care identified are: the healing environment, partnering with families, positioning and handling, minimizing stress and pain, safeguarding sleep, protecting skin and optimizing nutrition. This model is represented by the lotus flower. In the center, the first core measure is healing environment. Each of the remaining six core measures are depicted as overlapping petals to display the integrative nature of developmental care (Altimier & Phillips, 2013) (Phillips, 2015).

The goal of the unit was to empower families by partnering with them to develop proper skills in caring for their infant (Westrup, 2007) positively impacting their stress level, comfort level and confidence as well as increasing family satisfaction (Cooper, Gooding, Gallagher, Sternesky, Ledsky & Berns, 2007). The goals of the NICU nurses were to gain new knowledge, skills and increased nurse satisfaction by providing developmental care using the seven core measures of neuroprotective family centered care for every infant every time (Cardin, Rens, Stewart, Danner-Bowman, McCarley & Kopsas, 2015).

The NICU staff was educated on the "Seven Core Measures of Family-Centered Developmental Care" by providing educational materials and hands on training with a developmental care specialist. After completion of the training the neuroprotective interventions were implemented on every NICU infant. Parents were give verbal and printed information and educated on the meaning of family centered care.

Conclusion from pre and post surveys that were collected from our NICU nurses showed an increase in knowledge of the appropriate care and potential benefits of these interventions. Pre and post Press-Ganey reports were collected from parents and results showed an increase in satisfaction over most categories. Also the results from parents during discharge phone calls surveys showed NICU families had a strong satisfaction with the partnering of care and the level of family centered care their infant received. With these results it is essential for NICU nurses to provide developmental care using the seven core measures of neuroprotective family centered care as the standard of care for every infant and family that walks through the NICU doors (McGrath, Samra, Kenner, 2011).

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## PST1 - Poster Session 1

### Integrating Palliative Care Services With Heart Failure Management

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#### Abstract

Numerous end stage heart failure patients go without experiencing the full affect and benefits of receiving palliative care. There is unfortunately a lack of palliative care initiative and utilization within the HF provider and patient population (Jorgenson et al., 2016). Currently, there are gaps in the literature evolving palliative care management with HF specific criteria. Healthcare provider knowledge of disease specific palliative care other than oncology is inadequate (Uppal & Rushton, 2014). There is a clear need for guidance regarding best practice care for heart failure patients.

Heart failure is a multifaceted clinical condition originating from an impairment of the function and structure of the ventricular filling or ejection of blood throughout the body (Yancy et al., 2016). Approximately 5.7 million Americans have congestive heart failure (Mozaffarian, et al., 2016). The Heart Failure Fact Sheet (2015) emphasized the annual cost of treating HF is \$32 billion. Symptom burdens of end stage heart failure include shortness of breath, chest pain, claudication, fatigue, skin breakdown due to swelling and impaired perfusion, depression, anxiety, activity intolerance, cachexia, and sleep breathing disorders (Johnson, 2007). Quality of life for patients with heart failure becomes reduced with the progression of the disease (George & Leasure, 2016). Advanced HF is the measurable indication of extensive heart disease with severe limitations of heart failure symptoms (Advanced Heart Failure, 2015). The complexity of heart failure makes trajectory and prognosis very difficult to determine (Uppal & Rushton, 2014). The unknown trajectory for heart failure makes timing for palliative care referrals unpredictable for providers (Ziehm et al., 2016).

The purpose of palliative care is to improve quality of life for patients as well as caregivers and family members who deal with difficulties surrounding chronic illnesses by providing preventative measures and liberation from suffering (WHO, 2012). The goal of palliative care is to assist with improving the quality of life for patients with chronic complex illnesses (Fasoline & Phillips, 2016). Palliative care targets symptom management and easing chronic disease burdens (Hemani & Letizia, 2008). The standards of palliative care symptom management include: (a) the implementation of a holistic assessment; to identify the cause, (b) the utilization of optimizing pharmacologic elements, (c) reversal of what is reversible, and (c) the incorporation of palliative care within any other symptoms (Johnson, 2007). Palliative care services are also available to the patient and family any time of the day (Seow et al., 2014). The rationale for implementing these services with Advanced HF patients is to improve satisfaction and quality of life.

There are many issues inhibiting the initiation of HF specific palliative care services for end stage heart failure patients (Kavalieratos et al., 2014). Healthcare providers lack the proper education and training for understanding and handling palliative care appropriately (Namasivayam & Barnett, 2016). This creates misperception as well as miscommunication between the healthcare provider, the patient, and the family (Ziehm et al., 2016). Palliative care is oftentimes mistakenly associated with a terminal prognosis (Ziehm et al., 2016). Healthcare providers own the responsibility of acknowledging knowledge gaps and overcoming these barriers in order to allow for heart failure therapies to work congruently together with palliative care management for better care (George & Leasure, 2016).

The purpose of this project is to increase heart failure specific palliative care referrals in the outpatient setting. Furthering provider education with heart failure specific palliative care models and palliative care integration methods will also be covered in order to support the delivery of palliative care to advanced HF patients for a more comprehensive patient centered care service. Building trust while boosting the support of healthcare providers is necessary in order to integrate palliative care services with heart failure management (George & Leasure, 2016).

Oftentimes, providers are faced with the difficult decision of introducing palliative care to the patients with reduced ejection fractions who constantly experience worsening shortness of breath, end stage renal functioning, unresponsiveness to diuretic therapy, activity intolerance, increased fatigue, and repeat readmissions to the hospital (Muhandiramge et al., 2015). Support from the palliative team could optimize heart failure care, chronic symptom burdens, communication between provider and patient, readmission rates, cost of care, accessibility to care, and improve overall quality of life and satisfaction for heart failure patients.

Correlational research will be used to discover the relationship between pre- and post-educational intervention and palliative care referral initiation. In order to measure the advanced practice nurses knowledge and awareness with initiating palliative care referrals, the amount of palliative care referrals initiated before and after the educational intervention will be recorded.

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## PST1 - Poster Session 1

### Interprofessional Collaborative Approach for Improving Situation Awareness Using Simulation in a Nursing Residency Program

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#### Abstract

More than 250,000 people die in the United States each year due to medical errors, which constitutes the third leading cause of death, ranking behind only heart disease and cancer (Makary & Daniel, 2016). In a hospital setting, nurses can detect errors early and initiate actions to prevent negative consequences for patients (Aiken, Clarke, Cheung, Sloane, & Silber, 2003). Nurses who are situationally aware understand why a patient's condition may be changing and can anticipate what is likely to happen next, allowing them to react quickly and appropriately when something goes wrong (Cohen, 2013). Therefore, training nurses to improve their situation awareness (SA) could be the most valuable strategy in reducing deaths and other costs associated with medical errors. However, the opportunity to learn and practice SA is noticeably missing from undergraduate nursing curricula (McKenna et al., 2014). O'Meara et al. (2015) and Williams, Quested, and Cooper (2013) noted that high-level SA is crucial for nursing graduates who will be required to make potentially life-saving decisions in complex, unpredictable, and demanding situations.

SA is defined as an individual's cognitive capacity to perceive components in his/her surroundings, comprehend the ensuing information, and utilize the acquired facts to forecast future events (Wright, Teakman, & Endsley, 2004). Maintaining SA is an essential skill in medical settings that can be developed over time to improve patient care and ensure patient safety. Although human factors research pertaining to SA has been dominated by military and industry applications, Farnan (2016) noted that SA would "undoubtedly" improve the quality and safety of patient care by reducing errors. For instance, Schulz et al. (2016) found errors in SA were responsible for 81.5% of the cases from the German Anesthesia critical incident reporting system.

The results of Schulz et al. (2016) show much research is needed in the medical field pertaining to SA in order to improve patient care and safety. The present SA training involves a hands-on, dynamic training process that utilizes a realistic scenario that requires nurses to use their expertise to: 1) recognize key situational elements (e.g., a patient presenting symptoms of a stroke) at a particular time and place, 2) understand/interpret this information to rule out alternative causes of the symptoms, and 3) predict future events based on the acquired patient information, despite distractions. This scenario-based SA training and subsequent practice in situation assessment can serve as an effective weapon for nurses to combat medical errors.

The participants were ten nurses with less than two years of work experience employed at a local hospital. The nurses participated in a single-day educational session that lasted for approximately six hours. During the training session, the nurses completed two simulation scenarios, received a lecture on situation awareness, participated in group discussions, and received mindfulness training. The nurses completed two 12-15 minute scenarios in a simulated hospital setting (one at the beginning of the educational session and one at the end of the session) to measure their SA during patient care.

At the start of the educational session, the nurses entered individually to begin care for the simulated patient in a simulated hospital room. They interacted with a patient, an "intelligent manikin," which was programmed to exhibit vital signs and symptoms of a patient suffering from a femur fracture that transitioned into a stroke (simulation scenario A). At three points during the exercise, the simulation was stopped and the nurse participants were verbally questioned with their responses being recorded about the current situation to assess their current levels of SA. Specifically, without the information visible to them, the participants were asked to recall the latest patient vital signs (e.g., blood pressure, temperature, heart rate), the current state of the patient (e.g., stable, deteriorating), and what will likely happen to the patient if the trend continues (e.g., will become dehydrated, will need pain medications, cardiac arrest). After the nursing simulation session, the nurse participants were debriefed regarding their performance.

After completion of the simulation exercise, the nurses attended a workshop on SA that included various hands-on activities to help demonstrate key concepts and strategies. For example, brief videos were shown depicting a nurse actor demonstrating either good or poor SA while caring for a patient. Following each video, the participants engaged in a group discussion about the actor's performance in the video by answering questions pertaining to SA. The questions were designed to foster discussion among the participants (e.g., "What information does the nurse have about the patient's condition?" and "What should the nurse be doing next?"). Toward the end of the workshop, the nurses were instructed on breathing exercises designed to increase mindfulness and concentration skills.

The program concluded with a second exercise in the nursing simulation lab. The nurses attended to the "intelligent manikin" patient programmed to exhibit vital signs and symptoms of pneumonia that transitioned into sepsis (simulation scenario B). Following the same procedures as Simulation Scenario A, the simulation was paused at three time points and the participants were verbally questioned about the current situation to assess their current levels of SA. The participants were debriefed regarding their performance and dismissed from the training.

In addition to post training participant survey data, the training will be evaluated using a pre-post design comparing SA maintenance skills at the start of the workshop (scenario A) to that at the end of the workshop (scenario B). Data will be analyzed using a non-parametric test of mean differences. It is anticipated that the training will increase the SA of nurses, which will equip them to act optimally when caring for patients in various medical situations.

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## PST1 - Poster Session 1

### Student Perceptions Regarding Collaborative Intraprofessional Nursing Education

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#### Abstract

The purpose of this project is to determine student perceptions regarding collaborative learning activities between undergraduate and graduate nursing students. Teamwork is an important factor in the provision of high-quality health care. Peer-assisted learning (PAL) is an intraprofessional, active-learning approach in which higher-level students act as teachers to lower-level students (Williams & Reddy, 2016). Near-peer teaching is a subset of PAL, in which the peer teachers are at least one year more advanced than the learners (Aba Alkhail, 2015). An important aspect of this project is the lack of existing published research focusing on collaboration between undergraduate and graduate nursing students.

There are positive benefits to near-peer teaching for both levels of students. According to McKenna and Williams (2017), students identified with the near-peer teachers, gained increased understanding of the course requirements, had decreased anxiety about clinical expectations, and learned how to manage difficult situations. Students also gained role models through their involvement with the near-peer teachers (Nelson et al., 2013). The near-peer teachers reported improvements in their teaching skills, knowledge, and clinical skills through this experience, while the lower-level students received helpful feedback on clinical skills in a supportive learning environment. (Khaw & Raw, 2016; deMenezes & Premnath, 2016).

There is a lack of research on collaboration between undergraduate and graduate nursing students, although some studies have been published on near-peer teaching in nursing education. In one study, second-year nursing students were utilized for the health assessment head-to-toe physical examinations by first-semester students, with positive feedback received for both groups of students (Bryant, 2017). In the simulation laboratory, senior level students have been used successfully as facilitators for junior level students (Dumas, Hollerbach, Stuart, & Duffy, 2015). Students also provided positive feedback about a simulation experience using higher-level nursing students as patients for first semester nursing students (Owen & Ward-Smith, 2014).

In our program, the online MSN graduate students in the Patient Education and Advocacy course currently create low-literacy pamphlets for community agencies. Typically, topics focus on chronic disease diagnosis and management, including lifestyle changes and other areas of importance for patient education. Leadership on the choice of topics in this project will be bottom-up drawn from the needs of the targeted populations. Our first-year residential undergraduate BSN students in the Population-Focused Nursing and Healthcare Policy course complete community assessments as part of their required learning activities. In a planned collaboration, the community assessments of the residential undergraduate BSN students will be utilized by the online graduate MSN students to create low-literacy pamphlets. These will meet the needs of the specific populations served by six community health care agencies, including free clinics, community health centers, and a public school district. Students working on this project will be geographically dispersed over five rural southeastern counties in underserved medical areas. These pamphlets will also be utilized during teaching sessions, staffed mainly by undergraduate nursing students, at the community agencies. Both before and after the project, demographic information and survey data will be obtained from both the undergraduate and graduate nursing students to assess their perceptions about intraprofessional collaborative educational activities. The planned survey instrument was adapted from Robben et al. (2012).

This project will help achieve the student learning outcome goals for two different nursing program levels. In addition, the use of the created pamphlets will help meet the educational needs of the community and support health equity in these underserved populations. A unique aspect of this research project is the intraprofessional collaborative nature of the learning activities across both program levels and educational settings.

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## PST1 - Poster Session 1

### Sexual Expression of Nursing Home Residents

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#### Abstract

**Purpose:** Living longer, baby boomers will need specialized care offered by nursing homes to manage chronic conditions. This review explores the knowledge, attitudes, and experiences towards older people's sexuality and sexual expression in nursing homes – an important area of research to meet the needs of this emerging population.

**Design:** A primary search of the CINAHL and Pubmed databases and secondary inclusion of cited references covering the period January 2000 to November 2016 identified 12 relevant studies.

**Methods:** Using the PRISMA flow diagram of the screening process, data were extracted, summarized, compared, and risk of bias was assessed focusing on ethical considerations, sample size and sampling methods, validity and reliability of data collection instruments, participation, cooperation and response rate.

**Findings:** Research on the matter of sexuality and sexual expression in nursing homes is unexpectedly scant. The existing research demonstrates an overall disconnect between what residents want and the existing policies for sexual expression in nursing homes. Overall, sexual expression in older adults is recognized as a basic need that should be supported. Positive attitudes towards sexuality in nursing homes were correlated with a higher level of knowledge about older adults' sexuality. In addition, positive predictors of attitudes towards sexuality in nursing homes were found to be: age, level of education, and years of experience. Barriers to addressing sexuality in the elderly are the lack of privacy and staff discomfort, which together represent common causes for loneliness and lack of intimacy in nursing homes.

**Conclusions:** Nursing research and practice need to shift their focus towards individual needs of nursing home residents to accommodate their values and expectations. Current policies regarding sexual expression in nursing homes need revision to satisfy the needs of baby boomers.

**Clinical Relevance:** Care providers must include a thorough assessment of sexual health of older adults living in nursing homes in the routine practice, and include sexual health in the treatment plan.

**Keywords:** attitudes, gerontology, geriatrics, institutionalized, intimacy, knowledge, long-term care, nursing home, older age, older people, resident, sexual expression, sexual health, sexual rights, sexuality. demonstrated an overall disconnect between what residents want and the existing policies for sexual expression in nursing homes.

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## PST1 - Poster Session 1

### The Lived Experience of Jordanian Nursing Students in Jordan

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#### Abstract

Individuals studying nursing in the United States (U.S.) come from many countries and multiple ethnicities. Nursing faculty in the U.S., being predominantly Caucasian, frequently encounter students that are culturally different from themselves. Faculty may not be cognizant of cultural variances and therefore may be ill-prepared to mentor, encourage and guide these diverse students. The proposed research intends to explore the experience of being a nursing student in the Middle East, specifically nursing students in Jordan. The study is significant because understanding the lived experience of nursing students in Jordan may provide educators an insight into the lives, potential challenges and social influences experienced by Middle Eastern nursing students studying in the U.S.

A clear gap in this area of research is noted. There are only four identified studies related to Middle Eastern nursing students. Of the four studies two included undergraduate students and two assessed graduate students. The authors identified challenges related to loneliness, finances, social customs and values. None of the identified studies were current or described the lived experience of Middle Eastern or Jordanian undergraduate nursing students in the context of Jordan (Abu-Saad & Kayser-Jones, 1982; DeLuca, 2005; McDermott-Levy, 2011).

The participants will be in their final semester/s of an undergraduate baccalaureate nursing program while attending the University of Jordan in Amman, Jordan. Six months have been funded for the researcher to teach in the school of nursing and complete data collection. Two methods will be used to collect data from the participants; semi-structured focus groups and personal narratives. Eight questions will guide both the focus group and personal narrative. The eight questions include:

1. What is it like to be a nursing student?
2. Why do you want to be a nurse?
3. What are your challenges?
4. How is your family involved in your nursing education?
5. How are nurses viewed in your community?
6. What will it be like to be a nurse working in the hospital or clinic?
7. What else do you think is important for me to know about being a nursing student?
8. What do you think it is like to be a nursing student and a nurse in the U.S.?

Demographic information including age, gender, GPA, dependents, employment status, first generation college status and marital status will be collected from each participant. Qualitative data analysis will be conducted using Hycner's Explication Process.

This research will be beneficial to nursing education for several reasons. Nursing educators will have an opportunity to increase their understanding of the needs and challenges of Middle Eastern nursing students. Faculty will have a chance to expand their understanding of Middle Eastern traditions. Educators' may discover a new found appreciation for Middle Eastern nursing students and finally this research may help to allay fears and anxiety related to the Middle Eastern culture.

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## PST1 - Poster Session 1

### Nursing Mentorship: Clinical Coaching and Shared Leadership

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#### Abstract

**Purpose (What):** The Obstetric Nursing Mentorship Program at NYU Langone Medical Center was initiated to assist in the transition of newly hired staff into the professional role. The mentor-mentee relationship fosters an environment that reduces anxiety, promotes staff satisfaction, enhances clinical performance, and improves the quality of patient care.

**Relevance/Significance (Why):** Conversations between the 25 newly hired staff and more senior nurses suggested a need for clinical coaching. Research indicates that teamwork between nurses is essential for best practices in the clinical setting. Novice nurses historically lack confidence, efficiency of time management, and competency in performing with high acuity. In order to facilitate the new hires' transition into the professional RN role, research supports the strategy of mentoring.

**Strategy and Implementation (How):** Staff nurses with four or more years of obstetric experience were encouraged to enlist as mentors. The mentees were given a list of the volunteering mentors, were asked to rank their top three choices, and matched accordingly. The purpose of ranking is to encourage a mentee to choose someone they feel comfortable with, who may or not have been a preceptor. Mentor-Mentee dyad interactions were promoted through professional formal and informal meetings and personal communication. A kick-off event including night and day shift was held to promote communication and a team-building environment. A handbook was developed to assist in the framework of the program and guide the mentorship pairs throughout the process.

**Evaluation/Outcomes (So what):** As per mentee feedback via a pre-survey and Likert scale, the program was agreed to be beneficial in the areas of: work experience, support system, self-confidence, teamwork, knowledge and skills, and intra-professional communication. The pre-survey will be distributed in three month intervals, concluding at one year of participation.

**Implications for Practice (And now):** Goals aim at enhancing team building, staff engagement, shared leadership, healthy work environment and professional development.

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## PST1 - Poster Session 1

### Faculty Perceptions of the Impact of Service Learning on Nursing Students

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#### Abstract

**Background:** Service-learning experiences (SLEs) have become increasingly common in nursing education as schools strive to provide socially relevant curricula that improve students' cultural competence and prepare them to confront and challenge existing health disparities. In an early study (Ivory, 1997), the researcher's expectation that college students would return from an SLE feeling excited and personally satisfied was upended. Instead, most students in that qualitative study reported a variety of social and psychological difficulties that the researcher labeled "re-entry crisis." Problems included difficulty explaining their feelings about the experience, strained interpersonal relationships, feelings of uncertainty, and academic dysfunction. Subsequent studies illustrate the impact of nursing student participation in an SLE, many of which frame the narratives in a more positive light. For example, Adamshick and August-Brady (2012) interviewed participants in an SLE to Honduras about their impressions of the experience. The themes that emerged included appreciation for life and family, the need to simplify one's own life, and a sharper vision of what is truly important. Despite many rich narratives, there is a paucity of aggregate data about the characteristics of SLEs offered in US nursing programs and their impact on students. The purpose of this study was to examine that impact as reported by faculty trip leaders.

**Methods:** The instrument for this exploratory, descriptive study was developed by the researcher and administered online using Qualtrics® after approval by the university's institutional review board. Participants were recruited through a survey link emailed to approximately 1600 deans or directors of accredited US nursing schools, who were asked to forward it to faculty who oversee SLEs. Frequencies were tabulated using SPSS (v.24).

**Results:** The sample consisted of 77 nursing faculty from 32 US states who provided complete data (58% of the 133 who opened the link). Respondents were primarily female (97%), white (86%), and over the age of 50 (72%). Most faculty (75%) were affiliated with BSN programs and accompanied the students to the SLE (47% for the entire time, 31% part of the time). Twenty-three percent of the SLEs were located outside of the US with the majority of those being in the Caribbean, South America, or Central America; 55% were in local communities and 18% were within commuting distance. The table summarizes the results of survey items related to faculty perception of the impact of the SLE on the student participants:

Faculty opinions about how often students report or demonstrate the following after returning home from SLE (n and percent of total 77, ranked in order of frequency)					
Impact	Often	Sometimes	Rarely	Never	No response
Being "changed" by the SLE	53 (69%)	19 (25%)	1 (1%)	0	4 (5%)
A change in assumptions and stereotypes held prior to the SLE	55 (71%)	17 (22%)	1 (1%)	0	4 (5%)
Being more likely to advocate for the vulnerable and underserved in the future	51 (66%)	20 (26%)	2 (3%)	0	4 (5%)
Feeling overwhelmed with lack of resources available to host community	32 (42%)	31 (40%)	8 (10%)	1 (1%)	5 (7%)
Feeling overwhelmed with the needs of the host community	27 (35%)	35 (46%)	10 (13%)	1 (1%)	4 (5%)
Feelings of guilt about abundance of resources at home	22 (29%)	32 (42%)	15 (20%)	4 (5%)	4 (5%)
Feeling that family and friends can't understand the impact of the SLE	8 (10%)	27 (35%)	27 (35%)	11 (14%)	4 (5%)
Feeling difficulty returning to home community/culture	13 (17%)	19 (25%)	30 (39%)	11 (14%)	4 (5%)
Feeling that the SLE impact is difficult to explain	12 (16%)	19 (25%)	34 (44%)	8 (10%)	4 (5%)
Feeling alienated by home community/culture	4 (5%)	22 (29%)	32 (42%)	14 (18%)	5 (7%)

**Conclusion:** Faculty involved with SLEs believe that students are changed by the experience. Assumptions and stereotypes are altered and students are seen as more likely to advocate for the vulnerable and underserved after they return. Other common feelings, although slightly less frequently reported, relate to noting the disparities in resources between home and the host community. Sometimes students feel that it is difficult to explain the impact of the SLE to others. Less often, students feel alienated by their home community or culture when they return home. In general, SLEs have a positive impact because they open students' eyes to new cultural norms and increase the probability that they will practice nursing with more cultural insight. However, whether the impact results in sustained behavior change or whether negative feelings of being overwhelmed, guilty, and misunderstood linger is unknown and worthy of future research.

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## PST1 - Poster Session 1

### Clinical Practice for Novice Nursing Students: Shorter Clinical Day or Longer Clinical Day?

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#### Abstract

**Introduction:** Clinical education is an essential component of nursing curriculum. For the novice nursing students (NSs), length of clinical day may affect their learning ability due to their high anxiety levels (Bayoumi, Elbasuny, Mofereh, Assiri & Al fosal, 2012, Sun, Long, Tseng, Huang, You & Chiang, 2016, Kobayashi, unpublished data 2017) caused by the stressors associated with a new clinical environment and limited knowledge of pathophysiology. At the same time, their enthusiasm to participate in every clinical learning opportunity on real patients is very high and short clinical days may not satisfy their clinical expectations. The quality of nursing students' clinical learning experiences on any clinical shift depends on various factors, such as opportunity of skills acquisition and the relationships with nursing staff at the facility (Danner, 2014; Rossen & Fegan, 2009). Numerous advantages were found in one longer clinical day regarding opportunities for application of skills compared to two shorter clinical days. The longer hours provided students the opportunity to practice an increased number and variety of skills (Reising, Fickenscher, & Satrom, 2017) and students were more organized during a 12-hour shift as they were able to provide patient care throughout the day (Rossen and Fegan, 2009). Also, Tobar, Wall, Parsh, and Sampson (2007) discovered that students were able to enhance their learning experience and participate in shift reports at the end of a longer clinical day. At the same time, students experienced the dread of long hours, fear of making errors, and the overall constant stress of the clinical environment leading to higher level of fatigue in longer clinical hours (Wallace, Bourke, Tormoehlen, & Poe-Greskamp, 2015). Overall, there is limited available evidence in evaluating the effects of two shorter clinical days and one longer clinical day on student learning outcomes. The aim of this study was to identify effects of different length of clinical hours on NSs' learning outcome in acquiring nursing skills and developing professional relationships.

**Methods and Material:** Forty NSs in their first clinical rotation in Bachelor of Science in Nursing (BSN) program at Biola University, La Mirada, California were invited to the study to examine skills learning opportunities and the students' overall experiences of having both shorter and longer clinical days in one rotation. They have completed four semesters of general education required for BSN program and just begun learning basic nursing skills and pathophysiology in their fifth semester of BSN program. The expected learning outcome of the first clinical rotation is for NSs to demonstrate fundamental nursing skills, critical thinking, and clinical reasoning to enhance patients' health outcomes and quality of life, by developing nursing care plans and applying theoretical content in the clinical setting. The novice NSs were divided into four groups. There were ten students with one clinical instructor in each group and four groups were placed on four different units in an urban community hospital. Each group stayed on the same unit throughout the rotation. Students were assigned to the same patients when available on two consecutive shorter clinical days and assigned to different patients on each longer clinical day. The clinical days were composed of two 6-hour clinical days per week for three weeks, then one 8.5-hour clinical day per week for the following five weeks, excluding pre and post conferences. At the end of each clinical day, students were asked to identify skills that they performed during the day. A Student T test was used to compare the mean numbers of skills performed in shorter clinical days to the ones in longer clinical days. On the last clinical day of the first rotation, students were also asked to describe benefits of shorter clinical days and longer clinical days. These qualitative data were analyzed using content analysis.

**Results:** Forty NSs in their first clinical rotation participated throughout the study. The skills performed significantly more in longer clinical days than in shorter days were glucometer use, taking input and output, and performing physical assessments ( $P=0.014, 0.015, 0.043$ , respectively). The skills such as patient teaching /discharge teaching, insulin administration, dressing change, oral medication administration, and subcutaneous or intramuscular injections did not show significant differences but there was a trend of more opportunities to perform these skills in longer clinical days. Bed bath/general hygiene, linen change, passing trays, observing a specific procedure, and receiving a new admission did not show any difference. For benefits of two shorter clinical days per week stated by NSs, there were two major themes related to the two shorter consecutive days of clinical experiences: less anxiety on the second consecutive day, and ability to provide continuity of care when NSs had the same patients on the second day. For the benefits of longer clinical days, students' comments were more variable. Major themes that emerged focused on forming relationships with nursing staff and ability to see the progression of their patients' status. Students stated more opportunity to develop collegial relationships with nursing staff, aiding NSs to experience additional learning opportunities, and better able to observe transitions of patients' conditions over time. In addition, many students stated higher perceptions in their ability to provide more holistic care with enhanced opportunities to form relationship with patients and the family members. Overall, 26 out of 40 students recommended the longer clinical day during the first clinical rotation, three recommended the shorter clinical days, and 11 recommended a hybrid of both. Students reported that the benefit of a hybrid, or equally utilizing both, was providing students with a helpful transition from shorter days to longer days, as the clinical practices for the rest of the nursing program consist of only longer clinical days.

**Discussion:** The study was conducted to investigate the differences in the exposure and application of skills content of clinical experiences comparing a shorter clinical day to a longer day among novice NSs. As hypothesized, the data analyses indicated that more skills were performed on longer clinical days and better relationships were developed with nursing staff, patients and their family members. Students were more concerned about holistic care for their patients during longer clinical days, whereas they were more focused on the skill performance on shorter clinical days. Considering the high anxiety levels of novice NSs in the first rotation, they expressed less fear and anxiety on the consecutive second clinical day. Anecdotal data indicated that the students and clinical faculty members supported a hybrid clinical schedule combining both shorter days at the beginning and longer days thereafter during the first clinical rotation. Clinical scheduling involves the availability of space in facilities that receive NSs. When there is an opportunity where hybrid clinical schedule may be permissible, it is recommended to first introduce novice NSs to two shorter days per week and provide an eventual transition to longer clinical practice as they gain more experience even within the first clinical rotation for better outcome of clinical learning.

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## PST1 - Poster Session 1

### Use of Electronic Clinical Tracking System for Documenting Competency Achievement in a DNP Program

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#### Abstract

**Introduction:** Current practice in graduate professional program matriculation tends to rely on preceptor and faculty perceptions of clinical performance or project completion (Starosta, et al., 2017, Englander et al, 2013), as well as on meeting clinical hour requirements in specific clinical areas (Halles, Biesecker, Brennan, Newland & Haber, 2011). The most recent *Evaluation of Nurse Practitioner Programs* (2016) strongly suggests the addition of competency achievement to student and programmatic evaluations. There has been a good deal of support for monitoring competencies, with the caveat that it adds a dimension of complexity due in part to a dearth of common taxonomy and uniform mechanisms of measurement (Clabo, 2017).

**Premise:** Recently, the American Academy of Colleges of Nursing (AACN) formed an ad hoc work group to address competency-based education for doctoral-prepared advanced practice nurses' (APRN). The work group was formed with representatives from over two dozen advanced practice nursing credentialing and scholarship organizations to explore current practices and issues surrounding competency based clinical education (AACN, 2016). This workgroup recognized the critical foundation laid by APRN leaders initially in 2006 and most recently updated in 2017 (NONPF, 2017). The resulting white paper calls for development of competencies appropriate to all of the four APRN roles. Further, it issued a call for development of a standardized assessment tool invoking formative and summative evaluation using a common taxonomy framework to identify measurable progression of APRN competencies (AACN, 2016).

Goal development in graduate nurses increases self-awareness and encourages improvement of clinical learning experiences across student and later, in professional practice (McMillan, Bell Benson, et al, 2007). This project describes use of an electronic clinical tracking system (ECTS) to help DNP students to determine deficit areas, identify and then to document clinical goals related to competencies. Faculty used this assignment to promote reflection on competency attainment related to clinical experiences with overall goal of progression of independence and responsibility in clinical patient encounters (Price, Tschannen & Caylor, 2013). It was found that use of ECTS also facilitates collection of data salient to clinical encounters in a logical manner using the nursing process (McNelis, Horton-Deutsch, & Friesth, 2012). Students were able to use an ECTS to set specific learning goals to meet competencies and to validate clinical experiences in a demonstrable way for faculty. Faculty use the ECTS search and reporting functions to determine and document frequency and complexity of clinical visits to confirm preceptor reporting to help determine mastery of competencies. Integration of ECTS into documentation of clinical hours and monitoring of competency attainment helps students meet technology competencies (Johnson & Bushey, 2011).

**Conclusion:** As nursing and other practice disciplines continue to move to competency metrics, increased standardization and effectiveness will be needed (AACN, 2016). We need to continue to empower our students at all levels of learning to take responsibility for their academic and professional learning as methods for competency achievement are explored (Babenko-Mould, et al., 2012). Development and monitoring of personal learning goals using NONPF competencies incorporated an ECTS as one tool to scaffold learning across a clinical course to build accountability and confidence in DNP students (Joy, Berner & Tarrant, 2012). Use of ECTS in this small scale project demonstrated utility as a potential measurement tool for competency documentation.

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## PST1 - Poster Session 1

### Study Abroad Program With Dynamics of Collaborative Research: A Case of Two Universities

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#### Abstract

A bilateral agreement for collaborative academic work exists between the two universities making it possible for the Kirkhof College of Nursing (GVSU) and School of Nursing and Midwifery (UCC) to establish a partnership for study abroad activities in public health nursing and collaborative research. The collaborative endeavor began in 2008 when an undergraduate nursing student from GVSU studied for a semester at UCC. While at UCC she skyped with a group of GVSU OBGYN students on public health issues exchanging knowledge. The interest for establishment of a formal program was ignited. This was followed up by faculty exchange visits between the two nursing education institutions in 2008, 2009 and 2010. In 2010 three GVSU faculty members spent two weeks at UCC viewing the physical campus, meeting with UCC nursing faculty, visiting clinical sites, accommodations, and communication and transportation systems, and laying the groundwork for a partnership.

In 2013, the first twelve GVSU undergraduate students from the traditional and second degree BSN programs spent two weeks at UCC over their spring break and the week afterwards. Two UCC faculty members collaborated with two GVSU faculty to organize learning activities which included healthcare delivery and categories of healthcare providers in Ghana and similarities and differences in healthcare delivery and nursing programs (UCC and GVSU). Students explored the role played by the Student Nurses Association and how they might interact and make it possible to work side by side. They eventually conducted health screening across the lifespan working with community leaders who mobilized their community members. UCC and GVSU students and faculty teamed together to conduct home visits to follow up immobile seniors, prenatal mothers and vaccination defaulters. The lead author has strengthened the relationship between the two schools by completing a one year Fulbright Scholarship at UCC in 2013-2014 helping to develop their MSN program and continuing to train host country onsite faculty and clinical preceptors for both UCC and GVSU programs. The lead author has supervised some MSN theses leading to the beginning of collaborative research with one of the UCC coauthors. Since 2015 the lead author returns to UCC each summer to work with graduate students and mentoring some faculty thereby maintaining the relationship with nursing faculty, partners and community workers. This has had a great impact of experience on students and faculty's personal, academic, life skills, and competencies regarding their roles on world perspectives and transcultural nursing.

It has now been five years of ongoing partnership between GVSU and UCC. Along the way, students from the GVSU RN-BSN and DNP programs have also been added to the mix of students going to UCC. Each year the process of GVSU training and organization improves. The next endeavor involves UCC students coming to GVSU.

#### References

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## PST1 - Poster Session 1

### Implementing Clinical Accommodations for Students With Physical Disabilities in Nursing Education

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#### Abstract

Faculty effectiveness is central to the advancement of nursing education and the preparation of nursing program graduates who are prepared for today's fast pace clinical environment (Barksdale et al., 2011; Kring, Ramseur, & Parnell, 2013). The promotion of quality teaching and learning practices from faculty require the use of evidence-based research outcomes that address learner preparation (National League for Nursing, 2016). Regulatory changes in higher education have increased access to nursing education for students with disabilities. However, a long standing tendency of excluding students with disabilities from nursing education has left many nursing faculty without the knowledge and expertise needed to appropriately accommodate students with disabilities (Dupler et al., 2012; May, 2014; Newsham, 2008; Smith, 2012). Therefore, research was conducted to determine how nursing faculty can facilitate the success of students with disabilities once they are admitted into a nursing education program. The study examined best practices for faculty working with students with physical disabilities in a clinical nursing course. Currently, a knowledge deficit exists amongst nursing faculty on how to effectively implement accommodations for students with disabilities (Marks & Ailey, 2012; May, 2014; Newsham, 2008). Furthermore, no evidence-based guidelines for accommodation implementation can be found in the nursing literature. Therefore, the purpose of this study was to uncover the process by which faculty made reasonable academic accommodations for nursing students with physical disabilities within the clinical setting of a pre-licensure nursing education course. The results of this study are significant to nursing education because the number of students with disabilities perusing degrees in higher education is steadily increasing and more students with disabilities are likely to enter nursing education programs in the near future. However, many nursing faculty report a lack of knowledge on how to appropriately and effectively accommodate students with disabilities, especially in the clinical setting (Aaberg, 2012; May, 2014; Meloy & Gambescia, 2014). While a small number of students with disabilities have matriculated through nursing programs, a gap in the literature exists explaining how faculty use reasonable academic accommodations with these students. This knowledge gap prevents the widespread adoption of successful accommodation practices across nursing education programs, thereby limiting the acceptance and matriculation of students with disabilities. The anticipated increase of students with disabilities in nursing education necessitates that nursing faculty identify a consistent and feasible process for inclusion. Understanding the process by which reasonable academic accommodations are made is the first step to creating inclusive learning environments in nursing education.

Constructivist grounded theory method, as explained by Charmaz (2014), was used to answer the research question: What is the process by which faculty make reasonable academic accommodations for pre-licensure nursing students with physical disabilities, specifically orthopedic impairments, in the clinical setting of a nursing education program? Nursing faculty were interviewed about their experiences providing accommodations for students with physical disabilities in a clinical nursing course. Faculty were recruited from schools of nursing across the Midwestern United States and self-selected into the study. Individual interviews were conducted with initial participant using a virtual platform. The interviews were audio recorded and transcribed verbatim. Research transcripts were coded using constant comparative methods and categories and subcategories of results were revealed. Theoretical sampling with additional participants was used to further develop, enhance, and ensure the accuracy of developed categories (Charmaz, 2014). Research results will be discussed using participant narratives as supporting detail as well as future research needs based upon study results.

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## PST2 - Poster Session 2

### Development and Pilot Testing of a Multidimensional Learning Environment Survey for Nursing Students

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#### Abstract

**Background & Significance:** The learning environment has a major role in determining nursing students' academic inspiration, learning, and achievement. Student perception of the learning environment is widely accepted as a significant influence on student outcomes. While there are options for assessing selected components of learning environments for nursing students such as the clinical learning environment. There are existing instruments that assess nursing student perceptions of selected environmental components, such as the clinical learning environment, yet the learning environment encompasses more than physical setting, facilities, or technology. The social, cultural, relational, digital/virtual, and academic aspects of learning environments also provide contexts for processes that shape student learning, success, and professional identity formation. Student experiences also create a personal learning environment. Complex and dynamic interactions among all components create the learning environment for students. While faculty cannot control every aspect of the learning environment, knowledge of student perceptions can guide understanding experiences and facilitate opportunities to address issues.

**Purpose:** The purpose of this study is to describe pilot development and testing of a multidimensional learning environment survey to explore student perceptions of multiple learning environment dimensions. The presentation will report pilot and subsequent psychometric testing as well as mixed-method data analysis results.

**Methods:** Development of the Learning Environment Survey began as an interdisciplinary effort to understand perceptions of, experiences and satisfaction with the shared learning environment of medical students, resident physicians, and nursing students at one academic medical center during the previous year. The learning environment was operationalized as the curriculum, including implementation, faculty, and setting, including classroom, clinical and incorporation of technology. The survey was differentiated from specific course and faculty evaluations. Key areas for evaluation were selected for aligning data points from resident and medical student surveys, and items either developed by the researchers or adapted with permission from similar existing instruments for use with nursing students. Instrument items address such overarching domains as curriculum, professional behaviors and supportiveness of faculty and clinical preceptors, wellness (school/life balance), diversity and inclusion, moral distress, integration of technology, additional development and learning opportunities, handling concerns, and feedback and evaluation. Anonymous survey items include 5 point Likert-type questions and open-ended questions for mixed-method analysis. Participants were asked not to use specific names in narrative descriptions experiences. Basic demographic information is also collected.

**Results:** After institutional review board approval, content validity was established with a panel of 5 faculty experts and 5 students. Expert item-content validity index (I-CVI) for items was 0.60-1.0, scale-content validity was 0.80 to 1.0, and scale-content validity index/average (S-CVI-Ave) was .94. Student I-CVI was 0.20-1.0, S-CVI was 0.77-1.0, and S-CVI-Ave was 0.92. Minor word changes were made to the low scoring items based on expert and student feedback for understanding. The instrument was then piloted with 27 pre-licensure, accelerated, second degree students. Internal consistency of scores from the major conceptual domains of the survey (e.g., Environment, Culture, Work-Life, Diversity) were promising (Cronbach's alpha  $\geq$  0.70).

**Implications:** Survey results can enable faculty reflection and engagement with issues that impact nursing student learning outcomes. Next steps will include further psychometric testing of the instrument with deployment to a larger sample, which includes all nursing students at one institution, across academic programs for more robust psychometric testing. Future directions may include development of a conceptual framework, as well as multi-institutional, and ultimately national distribution of the Learning Environment Survey. While medical education and accreditation require frequent surveys and reviews of benchmark, comparative data across institutions, opportunities for data collection regarding the learning environment across similar academic nursing programs do not currently exist. Such information could assist nursing schools in understanding their unique climate and culture, as well as provide valuable aggregate data for comparing overall climates and cultures of nursing education among types and levels of institutions. National data will provide an opportunity to identify and address issues critical to the future of nursing education and the well being of nursing students.

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## PST2 - Poster Session 2

### Factors Related to Learning-Support Competencies of Junior Faculty at Nursing Universities

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#### Abstract

**Background:** Competency development for university faculty has become a key priority ever since such faculty development became obligatory. A review of documentation (Davis et al., 2005; Guy, et al., 2010 ; Poindexter,2013) on overseas nursing faculty competencies found differences in each nation's nursing education system and in the social roles played by nursing faculty; thus, the application of competency items used for overseas nursing faculty in Japan was thought to be problematic. As a result, the Nursing Faculty Competencies Self-Assessment Scale (NFCSSAS) was created in 2015 with the aim of measuring the competencies of faculty at nursing universities (Doi & Hosoda, 2016). The NFCSSAS is comprised of core learning-support competencies, as well as research performance competencies, social contributions competencies, and organizational operation competencies. The NFCSSAS has adequate internal consistency and stability, as well as construct and criterion-related validity (Doi & Hosoda, 2016).

**Purpose:** This study clarified factors related to the learning-support competencies of junior faculty at nursing universities to obtain suggestions for the effective faculty development of junior faculty.

**Methods:** From July to October 2015, a postal-mail questionnaire survey was conducted with 162 junior faculty members (assistant professors, under the age of 39, with less than three years' experience as nursing university faculty) in Japan. This survey consisted of the NFCSSAS (82 items), the Metacognition Scale for Adults (28 items) (Abe & Ida, 2010), the Mentoring Scale (48 items) (Ono, 2000), the General Self-Efficacy Scale (16 items) (Sakano et al., 1986), and questions regarding personal background. Covariance structure analysis was used to analyze the data. Data analysis was performed using IBM® SPSS® Amos Version 23. This study was performed with the approval of the Osaka Prefecture University Nursing Research Ethics Committee, Japan (application number 25-64). Participants received a request to participate in the study, which included information on the purpose of the study, a summary of the survey, a statement that participation was entirely voluntary, and explanations regarding how the study's results would be published and how the confidentiality of personally identifiable information would be maintained.

**Results:** Valid responses (53.1% response rate) were received from 86 junior faculty participants (18 males, 20.9%; 68 females, 79.1%). Fourteen participants were in their 20s (16.3%), and 72 were in their 30s (83.7%). Mean years of experience as university faculty was  $1.3 \pm 0.8$  years. As for highest education achieved, 2 participants (2.3%) had completed doctoral courses, 73 (84.9%) had completed master's courses, and 11 (12.8%) had completed undergraduate courses. As for the academic degree obtained (multiple responses permitted), 2 participants (2.3%) had doctoral degrees, 75 (87.2%) had master's degrees, and 60 (69.8%) had bachelor's degrees. As for type of affiliated university of the junior faculty, 23 participants (26.7%) were at national universities, 27 (31.4%) attended public universities, and 36 (41.9%) attended private universities. Mentoring, metacognition, age, and years of faculty experience had effects on the learning-support competencies of junior faculty. Further, a covariance structure model for yielding self-efficacy effects was set and used for analysis. The results showed the significance of the path coefficients from mentoring, metacognition, and years of faculty experience to learning-support competencies, and from learning-support competencies to self-efficacy. Nevertheless, as the path coefficient from age to learning-support competencies was not significant, this was deleted, and the data were reanalyzed. As a result, the goodness-of-fit of the model was within tolerance, with GFI = 0.916, AGFI = 0.845, CFI = 0.982, RMSEA = 0.060. The standardized estimate values of the path coefficient from mentoring, metacognition, and years of faculty experience to learning-support competencies were, respectively, 0.307, 0.614, and 0.135, and the standardized estimate value of the path coefficient from learning-support competencies to self-efficacy was 0.682; thus, all were significant. The coefficients of determination were learning-support competencies: 0.589 and self-efficacy: 0.100.

**Conclusion:** The present study made it clear that mentoring, metacognition, and years of faculty experience had effects on the learning-support competencies of junior faculty, and that these also contribute to self-efficacy. Thus, suggestions for the promotion of effective faculty development for junior faculty were obtained.

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## PST2 - Poster Session 2

### Bridge the Diversity Gap by Collaborating, Mentoring, and Coaching

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#### Abstract

**Purpose:** The purpose of this presentation is to share outcomes from the HRSA Nursing Workforce Diversity project awarded to the Colorado Center for Nursing Excellence (Center) in 2015. This project focused on four main areas; 1) Mentoring, 2) Emerging Nursing Faculty Support, 3) Transition to Practice in Critical Care, and 4) Family Support Partnership. Mentoring, coaching and collaboration were key foci that ensured success in all areas of this project. The goals, strategies, and outcomes of this project will be shared along with recommendations for continued work to increase nursing diversity in order to meet the needs of the rapidly growing diversified patient population. There is a huge disparity between the number of diverse patients and the amount of diverse nursing workforce. Lessons learned and pearls gained will be discussed to explore future methods for bridging this gap. This presentation will focus mostly on the mentoring program as it relates most closely to this audience.

**Methods:** After a significant amount of building relationships, networking and forming partnerships, a structured 2-day Mentor Training Institute (MTI) was planned and developed to train ethnically and racially diverse, experienced clinical nurses with varying levels of nursing education and specialty area expertise. Mentors and Mentees were recruited from both health care systems and undergraduate nursing schools, respectively, across Colorado through collaborative measures. Once mentors are trained and paired with nursing student mentees, structured professional coaching is provided monthly for 1 year to enhance and reinforce concepts learned. Mentoring relationship is 1 year in length. A comprehensive list of on-line and local resources was compiled to address social determinants of education to mitigate any potential challenges that may impede student success. Collaborative partners were established and comprehensive assessment plans were completed to determine effectiveness of the program.

**Results:** Analysis is currently in progress and will be complete by the time of this presentation. Based on preliminary data, we can infer that our programs were successful and worth replicating. In 2 years, >60 ethnically/racially diverse mentors were trained. Over 70 undergraduate students have been successfully mentored. Resources utilized by mentees helped them be successful. Mentors rated their training as effective to very effective in helping them learn mentoring skills and increase mentoring confidence levels. Mentors verbalize appreciation of coaching which has helped them stay focused, present and motivated. Mentees validated this by rating mentor support as moderate to extremely supportive. Collaboration was key to success. NCLEX pass rate to date is 100%.

**Implications:** This work has brought nursing education and clinical service industries together to increase nursing diversity in the state. Both groups have come together at our Annual Diversity Summits to explore strategies to increase diversity. Holistic review and admissions into nursing schools has been explored and has been implemented in 2 nursing schools as a result of this work and other Colorado schools are planning to follow suit. Cultural awareness and competency training is also forthcoming. Additionally, many mentees who completed the program are now paying it forward as mentors while others are continuing their higher education as a result of their experiences. These actions will increase diversity in Colorado to bridge the diverse patient and nursing workforce gap.

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## PST2 - Poster Session 2

### Start With What They Know: Student Perceptions of Self-Efficacy in Community Health Nursing

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#### Abstract

Constructivist learning theory states that learners integrate or build upon prior knowledge including formal and informal learning experiences. Related to Constructivist Learning Theory is Bandura (1977) Self-Efficacy Theory which describes learners' confidence in their ability to successfully perform in a role is related to knowledge acquired from prior learning. This pilot study seeks to develop insight into evaluating how students perceive and justify their ability to perform in specific community health nursing roles before a senior level community health nursing course and after the course in a baccalaureate nursing program of study. Prior to beginning the course students complete a pre-course survey instrument. For the pre-course instrument students base responses on prior knowledge. This prior knowledge includes formal education in arts and sciences, nursing courses prior to their senior year, as well as life experiences. The survey instrument was developed by experienced community health nurses using roles a first-year nurse might realistically encounter. The instrument has ten items, five pairings of Likert scale and short answer questions. Pre and post course surveys were collected over a calendar year from students in a baccalaureate community health nursing course. For the post-course survey, responses include all prior knowledge in addition to the course specific learning. Course specific learning and concurrent nursing course learning includes both didactic and experiential learning opportunities. Descriptive statistics and thematic analysis will be conducted on the data which has been archived from the 2016 calendar year in aggregate form. This pilot study seeks to describe how well the instrument measures the change in students' perception of self-efficacy in selected community health nursing roles before and after the course. The study also seeks to identify what prior and new knowledge students reference as the justification for their perceived self-efficacy. Based on conclusions supported by the data analysis, revisions to the instrument as well as the course will be considered.

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## PST2 - Poster Session 2

### Using the Triangulated OSCE to Assess Student Performance in Simulation

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#### Abstract

Simulation is widely used in health education to improve interviewing and clinical skills. The Objective Structured Clinical Examination (OSCE) is a method of assessing clinical competence by rotating students through a variety of standardized patient (SP) scenarios or skills stations. There are at present no widely circulated gold standard evaluation methods for OSCE performance. Variability in psychometric properties, vague instructions for participants, inconsistency in SP responses, poorly defined outcomes and a mismatch between intent of the evaluation and type of data collected are long-standing critiques of OSCEs. Directly observed simulation encounters are labor intensive represent a significant strain on faculty time. Challenges associated with inter-rater reliability and outcomes can be minimized by adopting a standardized checklist. The checklist itself must be closely examined as it can steer the faculty observer to an evaluation of skills performance over clinical synthesis or decision making. The purpose of this presentation is to provide a description of how two programs collaborated to develop an evaluation procedure to provide a more complete perspective of APRN student performance in OSCE. Faculty determined that 3 data points were required: faculty observation, student experience and SP feedback. A standardized checklist rubric, tailored to each case and developmental year, was developed for use by faculty. The student experience captured the essential information gathered by the student during the encounter. The final data point was the Essential Elements of Communication rubric completed by SPs following an encounter. The triangulated approach had high inter-rater reliability and internal consistency. The project demonstrated that tailored rubrics, evaluation of student experience and SP feedback are strongly associated with demonstration (or lack of) clinical skills progression and provided a means of developing tailored goals and remediation plans for students who performed below expectations. At a higher level, students who were struggling clinically were identified much earlier in the program, allowing for more intensive instruction and remediation. The observation form has given uniformity to feedback and been a positive training instrument regarding expectations of student performance. The OSCE evaluation method is flexible enough to meet different stages of learning, formative, summative and high stakes assessment.

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## PST2 - Poster Session 2

### Updating and Refining a Measure for Moral Distress: Introducing the MDS-2017

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#### Abstract

**Background:** Initially identified in nursing, moral distress is now understood to be a serious problem in other healthcare disciplines such as medicine, respiratory therapy, and social work (Allen et al., 2013; Aultman & Wurzel, 2014; Hamric & Blackhall, 2007; Schwenger & Wang, 2006; Whitehead et al., 2015). For clinicians at the bedside, moral distress can have negative implications such as burnout, (Meltzer & Huckabay, 2004; Rushton et al., 2015) and intent to leave a position, (Allen et al., 2013; Hamric & Blackhall, 2007; Hamric et al., 2012; Trautmann, Epstein, Rovnyak, & Snyder, 2015; Whitehead et al., 2015). As active work in this field continues to explore the impact of moral distress on providers and organizations, identify effective interventions to resolve morally distressing clinical situations, and describe the association between moral distress and patient care quality, valid and reliable instruments to measure moral distress are critical. In 2001, Corley introduced the Moral Distress Scale (MDS), a 38-item scale designed for nurses in critical care settings. In 2012, Hamric and colleagues shortened and revised the MDS to be applicable to all health professions and acute care clinical settings (Hamric et al., 2012). While the instrument has demonstrated good reliability, several studies in the past 5 years have indicated that there are additional important root causes not captured by the current MDS-R. Additionally, it has been suggested that the 6 versions of the MDS-R (adult and pediatric versions for physicians, nurses, and other providers) could be condensed to one standard instrument. Thus, the purpose of this project is to update the MDS-R and to psychometrically test the new version, the MDS-2017.

**Method:** We undertook a multi-step process to revise and update the MDS-R. First, we have received 20 MDS-R datasets from principal investigators which, when combined, yielded a dataset of over 4,300 respondents. We are analyzing this large dataset to determine which of the current 21 items are most and least often indicated as significant causes of moral distress. From this analysis, we will identify items that should be deleted. Second, an exploratory factor analysis is currently underway to determine whether the current MDS-R has an underlying factor structure. Concurrent with this statistical analysis, we reviewed the literature and identified 15 recent publications in which additional causes of moral distress were found or proposed. From these articles, we extracted potential new causes and compared them to the items on the current MDS-R. Finally, the current MDS-R provides space for respondents to insert additional causes of moral distress. We have reviewed and evaluated additional causes listed by respondents in eight different studies to determine whether they constitute new items that should be represented in the MDS-2017. Once a final MDS-2017 has been constructed, we will test the instrument, with IRB approval, at 2 academic medical centers.

**Results:** Based upon the review of articles, evaluation of respondent comments, and statistical analyses, the current MDS-R items are being refined and updated for accuracy, clarity, and relevance. Thus far, five items are proposed to be eliminated, twelve items refined, and 11-13 items added. IRB approval is being obtained to test the MDS-2017. The proposed MDS-2017 and preliminary results of the testing phase will be presented at this conference.

**Discussion:** Identifying specific sources of moral distress is imperative to better target interventions to mitigate moral distress within institutions. The significant relationship between moral distress and leaving a position is well documented and supports the importance of minimizing moral distress to improve staff retention. The updated MDS-2017 will include the most contemporary understanding of the root causes of moral distress. If testing yields a psychometrically stable instrument, the MDS-2017 should replace the MDS-R.

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## PST2 - Poster Session 2

### Perceptions of DNP-Prepared Nurse Educators on Their Preparation for the Faculty Role

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#### Abstract

The nursing faculty shortage in the United States is clearly documented (AACN, 2015). This critical shortage is far-reaching, with the lack of qualified nurse educators impacting the number of students that schools of nursing can admit. Doctorally-prepared nurses can help address this shortage, but these educators may need support in the faculty role because their education is not have prepared them for the expectations of academia, depending on the content of the program they attended. The purpose of this research study is to explore doctorally-prepared nurse educators' perception of their confidence in their preparedness for the faculty role. The researchers are seeking to identify challenges in the academic role faced by doctorally-prepared faculty members. The research questions are: Do faculty with a doctoral degree feel prepared to teach in a School of Nursing? What challenges do doctorally-prepared faculty face in the faculty role?

Preparation for the Doctor of Nursing Practice (DNP) role focuses on application and practice. The Doctoral of Philosophy (PhD) degree prepares nurse scientists to conduct research and discover new knowledge in nursing (AACN, 2010; Melnyk, 2013). Both degrees do not necessarily prepare nurses to teach nursing, since nursing education courses are not typically included in nursing degrees unless the program has an emphasis on nursing education (Dreifuerst et al., 2016). In preparing DNP graduates for roles in practice and application of research findings, DNP programs do not focus heavily on developing and conducting research. Instead, the focus is on translating existing research into practice. The result is that DNP-prepared graduates moving into faculty roles may have less experience in conducting original research, which is an expectation in most academic settings (Nicholes & Dyer, 2012; Smeltzer et al, 2015). DNP faculty are necessary to teach DNP students and to guide their future practice; however, the question of scholarship expectations continues to be a barrier to successful assumption of the faculty role. Some schools are divided on whether DNP-prepared faculty are prepared to teach nursing, but most agree that they are not prepared for the research expectations in academia, particularly in universities and Carnegie Level I Research institutions (Agger, Oermann & Lynn, 2014; Oermann, Lynn & Agger, 2016). The literature demonstrates that much is still unknown about the perception of doctorally-prepared faculty members on their confidence in teaching and the challenges they face. The current study builds upon the limited research into this topic by asking doctorally-prepared faculty members to reflect on their career in academia and the impact of their doctoral degree program on their preparation for the faculty role.

A link to a researcher-developed questionnaire will be sent to nursing faculty in CCNE-accredited schools of nursing in seven states in the southern U.S. Data will be analyzed using descriptive and inferential statistics. Findings from the study should be completed by early Spring 2018.

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## PST2 - Poster Session 2

### Does a Community Health Simulation Enhance Student Learning More Than the Traditional Windshield Survey Approach?

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#### Abstract

American Sentinel University has developed a community health simulation entitled Sentinel City. From the comfort and safety of their own homes or offices, students participate in a simulated community health practice experience commonly known as the "Windshield Survey." Students board a virtual city bus and assess the cityscape using a guided community health practice assignment. Students observe and report on key health characteristics while being transported on the bus or walking through diverse neighborhoods, assess ease of access to city amenities, perceived safety, availability of healthcare, access to transportation and various factors that support or detract from the residents' overall health. Potential community health problems are identified and discussed through structured learning experiences. In this study three questions were asked:

**Question #1:** Does a windshield survey using the Sentinel City Bus lead to greater student mastery of the concepts vs. a traditional windshield survey? This question will be answered by comparing sections of students who completed the windshield survey using the Sentinel City Bus (experimental group) or using the traditional method – either driving or walking around a selected community (control group). Both groups of students will complete pre- and post-tests. The questions on the pre- and post-tests are the same, so an analysis of the data will show value added in terms of Windshield Survey knowledge, comfort, and concept mastery, as well as any differences that emerge between the Experimental and Control groups. An added benefit for the Experimental Group is that the researcher can analyze the time spent and locations viewed and correlate those data to grade(s) obtained in the Windshield Survey content – i.e. do students who get better grades perform differently in the Windshield Survey than students who get poorer grades?

**Question #2:** Does a windshield survey using the Sentinel City Bus lead to greater student satisfaction of the experience vs. a traditional windshield survey? This question will be answered by comparing sections of students who complete the windshield survey using the Sentinel City Bus (experimental group) or using the traditional method – either driving or walking around a selected community (control group). Analysis of end of course student surveys will show any student satisfaction differences that emerge between the experimental and control groups.

**Question #3:** Does a windshield survey using the Sentinel City Bus lead to greater faculty control of the concepts to be mastered by students vs. a traditional windshield survey? This question will be answered by faculty completing end of course faculty surveys that include questions addressing course development and/or preparation, assignment grading, discussion question preparation and grading, interacting with students, course content, etc. Analysis of the data will show any differences in perception of control of the windshield survey concepts between the faculty teaching the Experimental and the Control groups.

In the United States, there are over 650 schools of nursing at public and private institutions, with the vast majority having a windshield survey built into their curriculum. It is hypothesized that data from this study will show that students and faculty find the Sentinel City simulation experience to be a very positive one. Assessment analysis will also indicate that the simulation experience also has a very positive effect on student academic experiences. The Sentinel City Bus is a new tool that is being used in higher education to enhance student critical thinking, communication skills, and knowledge acquisition, and shows great promise in the enhancement of student learning.

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## PST2 - Poster Session 2

### Mind Over Matter: Educating Nursing Students on the Art and Skill of Mindfulness

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#### Abstract

#### **Learning Objectives:**

1. Upon completion of the mindfulness learning experience, the learner will be able to identify three methods of mindfulness training.
2. Upon completion of the mindfulness learning experience, the learner will be able to demonstrate and apply three methods of mindfulness training.

#### **Research Question:**

1. Is there a statistically significant difference between self-perceived stress levels in undergraduate junior nursing students before and after participating in mindfulness education?

#### **Theoretical Framework:**

Dorothea Orem's Self-Care Deficit

**Background on Mindfulness in Healthcare:** Mindfulness is increasingly being utilized in healthcare settings to alleviate pain, decrease stress, and enhance quality of life for patients (Hardison & Roll, 2016). Currently, mindfulness training has not been fully integrated in the health and wellness education of health care providers, despite being the recommended coping tool for nurses (Hunter, 2016). Nurses are at a great risk of experiencing high degrees of stress leading to burnout and have difficulty coping (Adriaenssens, De Gucht & Maes, 2015). Approximately 20% of newly graduated nurses leave the profession within the first year as a result of not caring for their own "self-care deficit," which necessitates education in nursing school about how to care for oneself (Blair, 2014).

**Narrative of the Project:** In one undergraduate, junior nursing course, 107 nursing students were trained by a Koru mindfulness expert on the principles of mindfulness. Koru mindfulness is specifically mindfulness geared towards the college-aged population (The Center for Koru Mindfulness, 2017). The purpose of the quality improvement project was to examine whether incorporating mindfulness training within a nursing foundations curriculum to be beneficial or not. The students were provided a questionnaire created by the researchers, including comparing pre and post-intervention stress scores using a Likert scale and areas for student feedback to describe their stress. The nursing students stress were asked to rank their stress levels in a similar fashion to the 0-10 pain scale. Students were informed the questionnaires were anonymous and to answer honestly. The students were taught foundational principles of mindfulness and meditation. In addition, the nursing students practiced three mindfulness techniques: "whole body scan," "labeling," and "leaves in river." The response rate for the survey was 80.3%.

**Limitations:** One nursing class in one university in suburban Chicago utilized mindfulness training, thus limiting generalizability.

**Conclusion:** On average, the 86 students reported their stress decreased by 36.4% after participating in the mindfulness intervention. Statistical power was achieved as the sample size of 86 exceeded the minimum sample size of 54 as determined by G\*Power (Faul, Erdfelder, Lang, & Buchner, 2007). The descriptive data found that the average score pre-participation was 6.02 points (SD=2.21) and the post-participation score was 3.92 points (SD=2.10). No outliers were identified through the use of a box plot. Normality of data was identified using a Normal Q-Q Plot. The mindfulness training decreased nursing students' perceived stress by 2.10 points (95% CI, 1.80 to 2.41). A matched-pairs t-test was utilized and found a statistically significant decrease in self-perceived stress levels after the undergraduate junior nursing students participated in mindfulness training  $t(85)=13.72$ ,  $p=0.000$ ,  $d=0.98$ . Participants appeared to have less stress after completing the mindfulness training exercises. In addition, the most common feedback received from students was: "I feel less stressed," "I like it; it helped me out of a stressful state," "It taught me how to focus on what I can control in my life," and "I will focus on my breathing more in times of stress," "Learned I need to be present in the now."

**Implications:** Stress can negatively impact nursing students' academic performance and risk patient safety (Mills, Carter, Rudd, Claxton & O'Brien, 2016). As such, nursing students need to learn strategies for self-care during times of high stress. Mindfulness training offers the nursing students an easy way to care for their mind, body, and spirit with the goal of preventing negative consequences of stress. Mindfulness has a place in preparation of future nurses. While initial research utilizing the researcher's tool

demonstrates statistical significance, further reliability and validity testing are warranted and will be conducted using a group of junior nursing students at a different institution.

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## PST2 - Poster Session 2

### Translation and Psychometric Evaluation of the Vietnamese Clinical Learning Environment Inventory With Nursing Students

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#### Abstract

**Introduction / background:** Reliable tools that collect the perceptions of nursing students are essential to evaluate new nursing curricula and to inform improvements to learning and teaching strategies. This study was conducted in Vietnam where nursing is undergoing substantial change as the government moves nursing towards a baccalaureate degree educated, independent and self-governing profession (Chapman et al., 2012; Harvey et al., 2013). Change has been facilitated within a national government strategy to improve the health workforce and the health of the Vietnamese population (Nguyen & Chang, 2014). Within these developments, competency-based curriculum for Bachelor of Nursing courses has been implemented in several Vietnamese universities with mentoring by Australian nursing academic staff. As there are no Vietnamese language instruments which evaluate the quality of the Vietnamese clinical education environment, translation, adaptation and testing of an existing English language tool was undertaken. The modified Clinical Learning Environment Inventory (CLEI) (Newton et al., 2010) is an English language instrument for evaluating nursing students' perspectives of clinical education environments. It contains of 42 items in six subscales and is rated using a Likert scale. The CLEI was modified and tested by Newton et al. (2010) from a prior version developed by Chan (2002).

This study aimed to determine the psychometric properties of the Vietnamese language version of the Clinical Learning Environment Inventory (V-CLEI) in a sample of undergraduate Bachelor of Nursing students. The content validity of the revised V-CLEI was also examined with an expert panel of 21 Vietnamese nurse teachers and recent nurse graduates.

**Literature:** The clinical health care environment is where nursing students typically integrate prior theoretical knowledge and skills learned at university with experiences of real people and health care situations to develop competence (Flott & Linden, 2016). Nursing students are usually adults and as such self-regulate much of their learning within these experiences. Thus their perceptions of how the clinical environment supported or was a barrier to their learning is relevant and has been linked with attainment of learning outcomes (Bisholt et al., 2014; Kristofferzon, et al., 2013; Newton et al., 2010).

There are no existing validated Vietnamese language instruments identified with which the Vietnamese nursing clinical education environment could be evaluated therefore the V-CLEI (Truong, 2015; Newton et al., 2010) was selected. This Vietnamese language version had previously been translated and content validity testing undertaken with an expert panel however the psychometric properties of the inventory had not been tested. In instrument translation, the cultural subtleties of language and fine nuances of meaning cannot be assumed to be stable and use of rigorous translation methods is an essential step in validation of a new language version of an instrument (Sousa & Rojjanasirrat, 2011).

**Methods:** A convenience sample of 1023 undergraduate nursing students from five universities and colleges across Vietnam completed demographic questions and the V-CLEI following a clinical practice placement. To perform factor analysis, the sample was randomly split into two subsamples named A (n = 511) and B (n = 512) respectively. The groups which were equivalent in term of age, gender, year of study and V-CLEI score. Exploratory factor analysis (principle axis factoring, varimax rotation, and eigenvalues  $\geq 1$ , item loading was suppressed by 0.4) was performed in group A, then the EFA results were cross-validated in group B using Cronbach alpha and confirmatory factor analysis (CFA). The clarity and relevance of the modified instrument was judged by a group of experienced nurse teachers (n = 21) using a 4-point Likert scale (1 = strongly disagree 4 = strongly agree). Content Validity Indices (CVI) were calculated for the modified scale.

**Results:** The average age of the sample (n=1023) was 21 years and were predominately female (75%). Students were spread across second (52%), third (37%) and fourth (12%) year of their courses. The proportion of respondents in each year was varied as three locations offered a three-year degree and two a four-year degree. The EFA produced a five-factor solution that explained 41.03% of the variance consisting of 25 items. When testing the EFA results in subsample B, the modification indices suggested a good model fit (CMIN/DF = 2.35, CFI = 0.90, RMSEA = 0.05 [90% CI 0.046, 0.057], PCLOSE=0.33). The five new subscales were labelled and Cronbach alpha coefficients computed as: i) Student's Learning ( $\alpha=0.69$ ), ii) Satisfaction with Clinical Experience ( $\alpha=0.74$ ), iii) Student and Teacher Interaction ( $\alpha=0.76$ ), iv) Student Centeredness and Learning ( $\alpha=0.74$ ), and v) Support for Learning ( $\alpha=0.63$ ). Finally, an expert panel (n=21) reviewed the 25 items for content-validly revealing on overall acceptable scale level instrument (average CVI = 0.98).

**Discussion:** This study robustly translated the CLEI although congruency with another culture cannot be assumed. Psychometric testing with a large multi-site sample enabled us to establish which items ought to be retained in the V-CLEI. As the five-factor model only explains 41.03% of the variance, it is likely that there are latent constructs in the Vietnamese clinical environment that are not represented. The health care context in Vietnam is very different to that in western contexts where the CLEI was developed and previously tested, and is characterised by overcrowding, high nursing care workload (25 patients per nurse is the norm) and high clinical teacher workload (40-50 students per nurse teacher). Concepts in the original CLEI and V-CLEI items representing forces that enable individual learning and value innovation and variety in teaching behaviours may not be applicable to Vietnamese nursing students' perceptions of their experiences or to the Vietnamese clinical environment. Further testing and refinement is recommended to enable informed improvements in undergraduate nurse education provision and help equip future Vietnamese nurse graduates to function at levels comparable with other Asian countries such as Thailand or the Philippines.

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## PST2 - Poster Session 2

### Establishing Evidence-Based Faculty Development Strategies to Enhance Implementation of IPE in Nursing

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#### Abstract

**Background:** Over the past 15 years, the literature on interprofessional education (IPE) has exploded in the field of healthcare disciplines. The rise of interest in interprofessional practice and education is shared by health educators in Canada, the United Kingdom, the United States and countries of the European Union (Lewy, 2010). This drive towards interprofessional education cannot be isolated from political and financial factors that affect Western economies (Barr et al., 2011). **Literature Review:** The needs to address health issues arising from globalization, demographic aging, higher prevalence of chronic illnesses, and rising healthcare costs may create the needs for interprofessional education (Barr et al., 2011; Lewy, 2010). In their article Pfaff et al. (2013) underline the intersecting influences of organizational and individual factors in shaping interprofessional education in higher education organizations. Despite inconclusive evidence between the main elements of interprofessional education and its effectiveness (Reeves et al., 2013), IPE is seen increasingly as an effective way to prepare students of health discipline for future practice in collaborative health care settings. For instance, some authors report that IPE can help collaboration and clinical decision making (Lapkin et al., 2013), enhance quality of care (Wilcock et al., 2009), and increased patient safety (Anderson et al., 2009; Kyrkjebø et al., 2006). IPE seems to be desirable in health programs, yet some individual and organizational barriers may impede its implementation. Interprofessional education implies a reorganization of the structures within curricula and courses delivery. In alignment with previous studies describing the benefits of IPE (D'Amour & Oandasan, 2005; Barrett et al., 2007; Lash et al., 2014; Lawlis et al., 2014; Lapkin et al., 2013; Paul et al., 2014; Robben et al., 2012), Pfaff et al. (2013) recommend that facilitators and barriers to IPE be addressed at the individual, and organizational levels as these systems must work in synergy rather than in opposition to one another. **Although IPE is promoted in higher education strategic plans, the translation of these institutional objectives into faculty's active engagement deserves further examination.** **Objectives of the study:** The objectives of the study were to explore and understand faculty members' perceptions of knowledge, beliefs, barriers, and needs related to interprofessional education. **Research Questions:** A cross-sectional survey incorporating closed and a few open-ended qualitative questions was our choice to explore the following research questions: 1) What are the needs of faculty about implementing interprofessional education in their teaching? 2) What are the facilitators and barriers to implementing IPE? 3) What is the level of readiness of faculty members to implement IPE in their teaching? **Methodology:** With ethics approval, an online survey (National Interprofessional Competency Framework of the Canadian Interprofessional Health Collaborative, 2010; McFayden, Maclaren, & Webster, 2007) was administered to a sample of convenience across four geographical sites. The survey was conducted from June to August 2013 with a recall two weeks after sending the online invitation. Issues of anonymity and confidentiality were addressed. Twenty faculty out of 53 participated in the survey for a response rate of 35%. The survey was composed of 68 items derived from validated and reliable instruments such as the National Competency Framework and the Interdisciplinary Education Perception Scale (IEPS). **Data Analysis:** Descriptive statistics, Chi-square, and non-parametric correlation analyses were used to explore correlations between age, years of practice, the level of education, years of teaching, and knowledge and readiness for IPE. **Results:** Results indicates a willingness of implementing IPE within teaching and learning activities. However, the readiness to implement IPE is slowed due to lack of time, lack of knowledge, low self-esteem among faculty members, and teaching workload. Conceptual confusion on IPE, time, and logistics were seen as major barriers. **Implications for nursing education:** Results also suggest that lack of knowledge about the pedagogical underpinnings of IPE and collaborative teaching affect faculty's level of readiness. Results indicate that individual and organizational challenges remain critical issues to address if nursing is to fully implement IPE in nursing and allied health sciences. **Conclusion:** A successful and sustainable implementation of IPE requires addressing the lack of knowledge and skills through evidence-based faculty development educational activities.

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## PST2 - Poster Session 2

### Putting Nursing Students at the Helm of Health Literacy

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#### Abstract

**Abstract:** Effective communication is a foundation of high-quality, patient-centered health care. Understanding health literacy is an essential attribute that health care professionals need to possess in order to promote effective partnerships with patients and their significant others. Nurses, especially, need to be involved in addressing the epidemic problem of low health literacy in the United States because they are responsible for the majority of patient, caregiver and community health education and communication. Nurses play a key role in providing health care information to individuals, families and groups in a variety of settings and therefore should be educated about the essentials of health literacy, its prevalence in society and its relationship to health outcomes. There are currently no standards for including health literacy training in the undergraduate nursing curriculum. A review of the current literature on health literacy shows no formal recommendations for how, where or how to include this topic in pre-licensure education. The research demonstrates that a gap in nursing education exists, but there has been relatively little research on health literacy and recommendation for nursing education. Results of the pilot study and actual study will be presented.

**Purpose:** The purpose of this study is to evaluate the effectiveness of a Health Literacy Module (HeLM) on health literacy knowledge, attitudes and skills of pre-licensure nursing students using a pretest and posttest approach in order to raise awareness, build the skills and improve knowledge of health literacy and the impact on patient outcomes.

**Method:** Pre-licensure baccalaureate nursing students (n=180) were invited to participate in this quasi-experimental study. Students completed the health literacy questionnaire: The Health Literacy Knowledge and Experience Survey (HL-KES) as both a pretest and a post test. The classroom sessions included the researcher designed components of the HeLM which included a power point presentation, videos, active learning strategies and what to include in a patient education health literacy "toolkit".

**Findings:** It is the hope of the researcher that the findings will support the inclusion of a practical approach to incorporating health literacy education into the nursing curriculum.

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## PST2 - Poster Session 2

### A Baccalaureate Community Health Nursing Course Grounded in Nightingale's Environmental Action Theory of Nursing Practice

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#### Abstract

Community Health Nursing (CHN) has evolved from the era of Nightingale to the time of the Affordable Care Act. It has come from Wald's public health nursing in the 1800s to in-patient hospital care in the 1900s and now back to community-based care. Today, there is a greater demand for health care provided in the community. As CHN practice and education continue to evolve, it is important that theory guides them. The lack of research in Community Health Nursing education is significant, as research is necessary to promote evidence-based nursing education and practice. Nightingale's environmental theory is an excellent theory to frame nursing education in CHN. With its emphasis on the effect of the five points of light, water, air, cleanliness, and drainage on patients' health, her theory could guide research and nursing education. These points are the major focus of "Notes on Nursing" (1860). Even though these points were written in the mid-19th century, their ideas are still relevant. Ever enduring, Nightingale's Environmental Adaptation Theory of Nursing Practice (NEATNP) is applicable to today's CHN practice. Since Nightingale's era, nurse educators have recognized the importance of teaching students about the environmental influences on health and illness, but her theory has not been identified as providing the framework for a CHN course. Nightingale's theory, with its emphasis on environmental effects on health, could guide CHN, and teaching her theory's points in CHN courses could better prepare future nurses to provide care. The purpose of this study was to learn nursing students' perceptions of using the Nightingale Environmental Adaptation Theory of Nursing Practice (NEATNP) in their community health nursing education experience, and how this helped them to understand the importance of theory in practice. The objective of this study was to develop, implement, and evaluate a baccalaureate level CHN course grounded in the *Nightingale Environmental Adaptation of Nursing Practice*. This was a first time pilot study exploring the results of students' perceptions regarding the development of a CHN course grounded in the NEATNP. The researcher has developed and implemented the CHN course, including didactic and clinical instruction. The course was followed by an evaluation, a descriptive qualitative study design using focus groups for data collection. The Classic Analysis Strategy method, used for data analysis, revealed that the baccalaureate students had positive perceptions of this CHN course. They concurred that Nightingale is an appropriate theorist to guide a Community Health Nursing course, sharing that it was a good reminder of her theory and was a more holistic approach. A suggestion for the course in the future was to start teaching the NEATNP in the Nursing Fundamentals course and carry it throughout the curriculum. Their positive perceptions and the enthusiasm demonstrated in the focus groups confirmed the researcher's belief that there is a need for theory, specifically the NEATNP, in baccalaureate nursing education. All of these results support the researcher's assumptions that pertain to the connection between theory and CHN, the importance of CHN education, and NEATNP:

1. Community health nursing is an emerging and valid specialty, requiring a unique and specialized skill set.
2. Theory based education produces competence and confidence in students.
3. Nursing is both an art and science, dependent on compassion and common logic, and the utilizations of research (Selanders, 2005).
  1. Community health nursing education is optimized when based on research and grounded in a theoretical framework.
  2. Nightingale's theory with its emphasis on the environment is well connected to CHN, where the goal of the nurse is to create an environment where a person can heal.
  3. Understanding its historical antecedents, which include Nightingale and her theory, enhances current nursing education.
  4. Nightingale's essential concepts are salient, and CHN education programs would benefit from applying Nightingale's theory to their clinical praxis.

The findings of this study contribute to the body of research regarding utilizing theory in a baccalaureate-nursing course, and provides a starting point for future research. Repeating this study in other schools of nursing is warranted to provide more generalizability. These studies should be conducted at a variety of baccalaureate level schools of nursing, which would also increase generalizability. For example, it could be repeated at a school of nursing located in a city, or one located in other part of the country. A future study relating to the use of the NEATNP in a Fundamentals of Nursing course would provide greater insight into the use of theory in nursing education. This could take place at the same school of nursing as this study to provide data to compare with these results. It also should be conducted at other schools in cities or other parts of the country to increase generalizability.

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## PST2 - Poster Session 2

### "Healthy Skin" Program for Family Caregivers of People With Chronic Disease

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#### Abstract

At present, according to the World Health Organization, ECNTs continue to increase worldwide and are the leading cause of death and premature disability in the vast majority of countries in Latin America and the Caribbean, representing more than 3,9 million deaths annually, of the total deaths in the entire region. It is therefore one of the main challenges to be addressed in the health sector for development in the 21st century (WHO, 2015).

The experience of a chronic illness situation for families is related to socioeconomic, emotional and spiritual factors that together have a great impact on the lives of the people involved (Ortiz et al., 2006). This is the reason why an increase in the volume of people offering care, formal or informal. Stober (1998) points out that in the last two decades there has been a growth in the number of families who decide to take on the responsibility of caring for their relatives with chronic diseases. Taking this task of being a caregiver means that you have to change your lifestyle in social and family life. The care provided will require a lot of time, due to complications or exacerbations typical of the underlying pathology. Some of these complications are due to ignorance of interventions to prevent them from their caregivers (Martín, 2016).

The appearance of pressure ulcers is considered one of the complications commonly presented by people with chronic diseases. In addition to this, there is inexperience or lack of knowledge of Family Caregivers, which favors the appearance of these ulcers (Carbajal, 2015). These lesions represent a serious health problem, so a key element in the prevention of pressure ulcers includes two health managers: the nursing professional and family caregivers (López and Martínez, 2011).

The objective of this work will be to design and implement a "Healthy Skin" program aimed at caregivers that contributes to the knowledge of the instrumental support in the skin care, to promote a better care of the chronic patients in their home, Of the ulcers By pressure.

The methodology to be used for the elaboration of the program is participatory, constituted by 3 phases: Phases 1 and 2 are developed in the period from August to September of 2017 and phase 3 will be developed in the period of October to November of 2017, in A Hospitalization service in the city of Barranquilla / Colombia.

Phase I will identify the needs expressed by family caregivers based on an evaluation format.

In Phase II the design of the "Healthy Skin" program will be carried out, supported by the evaluation of knowledge and skills previously addressed to family caregivers.

Phase III will implement the "Healthy Skin" education program for the family caregiver group and evaluate satisfaction to identify concerns or difficulties that have arisen in program management and then be subject to the necessary changes and adjustments.

The statistical analysis will be carried out using the statistical package SPSS, version 22. It is planned to perform the analysis in two phases: a descriptive analysis phase and an inferential analysis phase.

Family caregivers are expected to be aware of all actions that can prevent the onset of pressure ulcers while maintaining the integrity of the skin of people with chronic illnesses. In addition, reduce the economic costs in the inputs and materials to treat them.

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## PST2 - Poster Session 2

### Student Opportunity for Success (S.O.S.): An Academic Recovery Program

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#### Abstract

The premise of the proposed poster presentation is to inform educators on the need to decrease attrition and increase retention of nursing students by instituting a program that promotes successful academic achievement. The program offers faculty guidance and support to nursing students, in a variety of methods, to accomplish their goal of successful completion of a Practical Nursing program. Nursing student attrition is a persistent problem worldwide and promotion of a positive educational outcome benefits the profession of nursing and the patients that nurses care for (Jeffreys, 2014). The approach to the supportive academic program begins by identifying a student that demonstrates low academic achievement. Retention in a nursing program can be impacted by many factors including stressful external personal factors, finances, and being unprepared for the rigors of the academic program (Mooring, 2016). In the recovery program, faculty will alert the student when a score on any type of test or written assignment falls below an 80%. Faculty will assist the student to recognize issues that may be interfering with understanding theory concepts. It is the student's responsibility to begin self-identification of learning difficulties so the faculty can better assist the student. The next step is to collaboratively develop a plan with the student that will guide the student to academic success. Continual monitoring of the student's progress will take place until the student demonstrates three consistent tests or written assignments with scores of 80% or better. If the student is unable to achieve a 75% by the end of the course the student will be dismissed from the program. Student progression to graduation is imperative to enable the student to take the licensure exam, and begin working in the healthcare field. With aging populations and increasing demands in the healthcare arena, increasing not only the number of students enrolled in a nursing program, but also those who make it to completion is an urgent need. The goal of early intervention strategies is retention and successful progression with a profession integration of faculty engagement (Shellenbarger, 2016). According to Lizzio & Wilson (2013) retention and success are drastically reduced with an early faculty intervention of academic recovery methods, especially in those students who may not seek out support on their own. The impact of attrition has a far-reaching impact on the lives of nursing students. Successful completion of a nursing degree will allow a greater income, greater job opportunities, and provide a benefit to the surrounding communities by providing the workforce with a qualified healthcare provider (Wray, Aspland, & Barrett, 2014). Initiating an environment of coaching and guidance, a collaborative approach can be taken to develop a comprehensive plan of action for the struggling student. Looking at individual learning styles, promoting the use of technology, and offering supplemental learning resources, can aid in the persistence and progression of the student. As nurse educators, we must take on the responsibility to implement initiatives that will help our students achieve their goals, to be competent and skilled in the profession, and to demonstrate self-efficacy in their ability to succeed with determination and motivation.

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## PST2 - Poster Session 2

### Design and Evaluation of a Simulation-Based Assessment Instrument to Identify Performance Gaps in Graduate Nurses

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#### Abstract

**Objectives:** The purpose of this exploratory mixed-methods action research study is to understand if and how nursing school training, observation, and direct experiences with blood administration impact comfort level of procedure performance; to develop a simulation-based assessment instrument; use the assessment to evaluate its effectiveness in improving nurse residents' confidence; identify actual and perceived performance gaps graduate nurses have performing blood administration procedures independently; and offer recommendations for curriculum changes in pre-licensure, nurse residency, and hospital orientation training to improve nursing practice and hopefully patient outcomes.

**Background:** The United States is suffering from a shortage of more than 500,000 nurses and the shortage will only intensify over the next ten years (American Association of Colleges of Nursing, 2014). New graduates are one of the resources expected to fill vacancies within the nursing shortage (Goode, Lynn, McElroy, Bednash, & Murray, 2013). However, there is a discrepancy between evaluations of new graduate readiness. Benner et al. determined that new nurses are underprepared for the challenges of patient care (2010). Ninety percent of undergraduate nursing education leaders feel new graduate nurses are prepared to practice; yet 90% of hospital nurse administrators disagree (AL-Dossary, Kitsantas, & Maddox, 2014). During self-assessment of readiness to practice, graduate nurses participating in nurse residency programs routinely rank 'blood product administration/transfusion' in the top three skills/procedures they feel uncomfortable performing independently (Lynn, 2014). Yet little is published regarding specifics within the procedure that prove to be more or perceived to be more difficult.

**Research Objectives:**

Specific aims of the study are to investigate the following Research Questions:

1. Do nursing school training, observation, and direct experience of blood administration relate to self-reported level of comfort in graduate nurses?
2. What essential steps are required in a blood administration assessment instrument to define proper performance, according to nurse experts at the study site?
3. What aspect(s) of a blood administration simulation-based assessment do graduate nurses perform incorrectly as determined by study site experts?
4. How accurate are graduate nurses' self-ratings of ability to perform blood administration procedures compared to nurse expert ratings?
5. Is there a relationship between blood administration assessment instrument results and graduate nurses' self-confidence in performing the procedure independently?
6. How effective is the blood administration simulation-based assessment in providing graduate nurses helpful self-assessment of skill performance?

**Methods:** This research study is a mixed-methods, multiphase educational needs assessment of up to 250 single site nurse residents for survey recruitment; up to 50 nurse residents for focus group recruitment; and up to 8 nurse experts for interviews during Phase I of the study. During Phases II and III, the same nurse experts will be used as in Phase I. Phase III will be a new sample of participants with a minimum of 30 nurse residents from the same study site.

**Inclusion criteria – Participants will be:**

1. Phase I – Nurse residents, for whom are recently graduated from nursing school and have variable experience with blood administration in their clinical practice yet blood administration procedures are part of their performance requirements; and
2. Phase III – New sample of nurse residents, for whom are newly graduated from nursing school and have variable experience with blood administration in their clinical practice yet blood administration procedures are part of their performance requirements BUT did not participate in Phase I; and
3. Phases I, II, and III – Nurse experts from patient care units with high blood administration rates and the infusion specialist for the study site.

**Conclusions:** Anticipated results from this study include a thorough assessment instrument to guide self-reflection of graduate nurse performance gaps with blood administration procedures, recommendations for timing and improvements in instructional design of blood administration training in nursing school curriculum as well as identify nurse residency curriculum expansion opportunities.

**Implications:** To impact the nursing profession through the improvement of education, transition to practice, and ultimately patient outcomes.

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## PST2 - Poster Session 2

### Examining Barriers and Facilitators to Integrating Culture of Health in Nursing Curricula: A Delphi Study

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#### Abstract

**Purpose:** The purpose of this research study is to examine the current state of integration of culture of health into academic nursing education at all education levels in one mid-south state. The study also aims to assess the perceived barriers, facilitators and readiness by deans and directors of schools of nursing about incorporating the concepts within the Robert Wood Johnson Foundation "Culture of Health" Framework into the curriculum.

**Methods:** All schools of nursing deans, chairs and directors within the state were eligible to participate in this study. Members of the state Action Coalition/Center for Nursing serving as representatives on the Culture of Health team presented an introduction about culture of health and the Delphi study at the biannual schools of nursing leadership meeting in February 2017. Following submission to the university institution review board, the study team identified deans and directors of schools of nursing to participate in the study. The nine deans and directors in Phase 1 of the Delphi study represent various nursing education levels including practical nursing, associate degree, baccalaureate and graduate nursing programs from various geographic areas around the state. The study team conducted phone calls to these participants in March and April using the following questions to guide the interviews.

1. What are your thoughts about integrating social determinants of health and culture of health concepts into the nursing curriculum? Is this something you are already doing in your school and if so, talk about the kinds of components or activities that are taking place.
2. Why do you think learning about social determinants and culture of health is important for nursing students?
3. What do you think are the barriers to integrating the concepts into the curriculum?
4. What do you think are the facilitators to integrating the concepts into the curriculum?

**Results:** Thematic analysis of the Phase 1 participants' responses revealed themes, subthemes and specific exemplars. Emerging themes were "Perceived importance of integrating culture of health (COH), population health (PH), and social determinants of health (SDH) into the curriculum"; "Current status regarding the integration of COH, PH and SDH into nursing curricula across the state"; Examples of how COH, PH, and SDH are currently being integrated into curricula across the state"; "Perceived barriers of implementing COH, PH, and SDH into the current curriculum"; "Perceived facilitators to implementing COH, PH and SDH into the curriculum"; and "Resources need to implement COH into the curriculum." From the themes, an electronic survey of closed- and open-ended items was created for Phase 2 of the study to validate findings of Phase 1 with those participants. The anonymous electronic survey is underway at this time.

After analysis of Phase 2 findings, an additional electronic survey will be created and distributed to all deans and directors of all nursing education programs of all educational levels in the state by the end of the summer. This survey and analysis will comprise Phase 3 of the Delphi study.

**Implications:** All findings will be shared with the state's nursing school leaders at the fall 2016 biannual meeting of the deans and directors. The overarching goal is enabling schools of nursing leadership in culture of health integration in their respective nursing programs. Specific resources for integration can be created and shared among education programs.

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## PST2 - Poster Session 2

### Feasibility and Learning Outcomes Associated With Preparing Nursing Students for Simulation Using Virtual Gaming Simulations

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#### Abstract

**Background:** Simulation-based education for health professionals and students is consistently associated with better knowledge, skills and behavioral outcomes (Cook et al., 2011); however, high costs of the technology, support staff and faculty time, have been a key criticism (Ker & Hogg, 2010, pp. 61-71). Thus, there is a need to explore efficient, innovative approaches to deliver quality simulation-based learning for nursing students. The simulation experience involves three distinct phases: preparation, participation and debriefing (Husebo et al., 2012). Pre-simulation preparation is a critical phase consisting of application of materials required by learners in advance of the scenario to optimize their learning during the simulation (Tyerman et al., 2016). Pre-simulation activities include readings, lectures, skills practice, quizzes, and self-assessments; however, in our experience, learners may fail to adequately prepare for simulation when given traditional pre-simulation preparation activities. Although approaches to scenario development and debriefing are widely reported, the literature describing pre-simulation preparation activities is just emerging. Preliminary results of a systematic review of the literature suggest that alternate pre-simulation preparation activities improve learning outcomes more than traditional approaches (Luctkar-Flude et al., 2016).

Virtual serious games or virtual gaming simulations are games accessed by computer for the purpose of education or training rather than entertainment (Verkuyl et al., 2016). Virtual games can be used to supplement learning that occurs in the classroom and simulation lab (Cant & Cooper, 2014). Nursing students reported high satisfaction and immersion when using a virtual game designed to develop pediatric skills (Verkuyl et al., 2016). Thus we propose that virtual simulation games used for pre-simulation preparation will prove to be more engaging to learners, resulting in better preparation and improved performance during live simulations. Accordingly, we will examine the feasibility and impact of virtual simulation games for pre-simulation preparation for nursing students.

**Research question:** What is the impact of traditional pre-simulation preparation versus blended delivery that includes virtual simulation games on nursing students' ability to achieve learning outcomes?

**Methods:** A multi-site, prospective, randomized controlled observational design is used in this study. The current project builds on a well-established provincial collaboration of nursing leaders in clinical simulation teaching and learning, and will demonstrate how collaboration across multiple university programs supports the scaling up of the research findings to help ensure all nursing students across the province have access to the same high-quality simulation-based learning opportunities.

**Simulation Scenarios:** This study will use four simulation scenarios developed through a previous collaborative grant (Egan et al., 2014); each scenario has validated clinical and learning outcomes and has a customized assessment rubric which has been tested for reliability. Rubrics are based on the principles of self-regulated learning. The scenarios involve complex, deteriorating patient care situations: 1) elderly urosepsis; 2) respiratory distress; 3) diabetic ketoacidosis; and 4) de-escalation of a violent patient. The proposed virtual gaming pre-simulation materials require students to view a nursing situation, filmed from the perspective of the nurse. At regular intervals students are required to select one of three or four potential nursing actions. The selected response will then play out for good or for bad such that students observe the expected consequences of their clinical decision-making. Students may replay the scenarios as many times as they wish, and select different actions each time and observe the associated outcomes. Two of the four scenarios will be implemented at each of the four sites, with each scenario implemented at two sites.

**Sample:** In total, 160 fourth year nursing students, from four Ontario University Schools of Nursing will be recruited to participate (i.e. 40 per site). At each site, students will be randomized into two groups: Group 1 will receive the revised simulation scenarios, which include virtual pre-simulation preparation, and Group 2 will receive the traditional approach to simulation, with a written scenario and "paper and pencil" questions that need to be answered prior to beginning the scenario. At the end of data collection, the virtual pre-simulation preparatory virtual materials will be available for the students in the control group (i.e. Group 2). Each learner will participate in two of the four scenarios.

**Measurement:** Data from the learning outcomes rubric and a clinical knowledge test will be used to evaluate nursing students' ability to achieve learning outcomes. Use of the customized learning outcomes rubric based, which is based on self-regulated learning (SRL) theory, allows student self-assessment at multiple points in time during the simulation. In the current study, students' self-assessments will be used to judge: 1) success on preparation for the simulation; 2) success during the simulation; and, 3) after post-simulation debriefing in order to identification remedial learning requirements. Further, by examining the difference between instructor assessment scores and students' self-assessments, we can develop an index of students understanding of course criteria. Because the rubrics describe qualities that demonstrate student competency of varying levels (i.e., descriptors not a check list), we will also use a written test to assess detailed clinical knowledge associated with each scenario (e.g. medications, laboratory values etc.).

**Results:** The four proposed virtual simulation games are currently under development. Usability testing will be completed prior to implementation at the four sites. Two sets of repeated measures analysis will be performed within and between experimental and control groups with data collected at three time points: end of pre-simulation preparation; end of simulation; and, end of the post-simulation debriefing. First, to assess the extent to which the virtual simulation enhanced the students' learning outcomes, the student self-assessment of learning outcomes will be compared within and between experimental and control groups. In addition, the instructor assessment of learning outcomes will be compared to student assessments. Second, to assess the impact of the virtual simulation on improved clinical knowledge, knowledge scores for the experimental group will be compared to the traditional group. Process data will also be collected to evaluate feasibility, and qualitative feedback will enhance understanding of the value and limitations of using the virtual simulation games for pre-simulation preparation.

**Conclusions:** The key anticipated innovations and contributions of this project include: (1) the design and implementation of an online virtual pre-simulation preparation module; and (2) the expanded use of learning outcomes and clinical knowledge assessments for student evaluation. The advantages to using virtual games for pre-simulation could include the promotion of self-regulated learning, enhanced preparation for simulation teaching and learning encounter, enhanced knowledge with a potential decrease in student anxiety, improved clinical performance and job preparedness. Additionally, we anticipate that standardized pre-simulation preparations will reduce faculty preparation time and student assessment time, and may decrease instructional time in the simulation laboratory. Over the longer-term, the systems and processes put in place through these innovations will enhance our ability to continue to develop high-quality clinical simulations.

**Global Implications:** Once completed, the virtual simulations will be available online, providing access to high-quality simulations to nurse educators worldwide, including those teaching in settings that lack the resources to develop or provide simulation-based learning.

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## PST2 - Poster Session 2

### Validation of the Lasater Clinical Judgement Rubric and Predictors of Clinical Nursing Judgement in Simulation

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#### Abstract

**Background.** Appropriate clinical judgement is an expectation of safe nursing care (Lasater, 2007). The Lasater Clinical Judgement Rubric (LCJR) is frequently used in clinical judgement assessment in education (Adamson, Gubrud, Sideras, & Lasater, 2012) but there are few clinical studies to illustrate its validity or to identify predictors of higher clinical judgement scores, including the impact of stress on clinical judgement, a common issue in clinical practice and simulation (Bauer et al., 2016; Bong, Lightdale, Fredette, & Weinstock, 2010; Gore, Hunt, Parker, & Raines, 2011; Gouin et al., 2017). **Methods.** Using a prospective, two-group comparative and correlational design, we studied Expert Nurses (ICU nurses of at least 5 years; n = 15) and Novice Nurses (senior prelicensure students; n = 13) participating in a single simulation to evaluate the validity (ability to discriminate between the groups) and predictors of clinical judgement on the LCJR. Statistical analysis included t-tests and linear regression. Covariates were age, years of nursing experience, prior simulation experience, LCJR scores and of pupil dilation (measure of stress via eye tracker, SMI, Germany) during specific nursing procedures (pupil change from baseline during elevating head of bed, looking at monitor, applying oxygen). Covariates with a *p* value of < 0.05 in the bivariate analyses were entered into a Linear Regression with the LCJR score as the dependent variable. **Results.** There were significant differences in the LCJR between groups, with Expert Nurses having higher scores (22.60 ± 3.18) in comparison to the Novice Nurses (15.38 ± 4.31) *p* < 0.01. On the regression, only years of RN experience was an independent predictor of clinical judgement ( $F(1, 23) = 10.078, p = 0.004$ ). The overall model fit was  $R^2 = 0.305$ . **Conclusions.** This study verifies the validity of the LCJR to differentiate clinical judgement. However, unexpectedly, stress did not show a dramatic impact on clinical judgement, only number of RN years. These findings have important implications for the progression of novice to expert nurse: psychological stress was not a significant hindrance or advantage for clinical performance. This study supports the belief that even between expert nurses (ICU nurses), years of experience still significantly affects nursing clinical judgement.

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## PST2 - Poster Session 2

### Weaning Inconsistencies in Neonatal Abstinence Syndrome (NAS) and Modified Scoring

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#### Abstract

Neonatal Abstinence Syndrome has been recognized for years; however, a nationwide increase in opioid exposed newborns has drastically changed the face of neonatal nursing and healthcare (Bagley, 2014; Toila, 2015). While many different scoring tools and treatment options have been developed and implemented worldwide, there are still significant inconsistencies across the board on how to safely and effectively wean these newborns and decrease their length of stay (LOS) (McQueen, 2016). With this increased patient population we have viewed traditional scoring tools including Finnegan and spoken with other experts in this field including Yale. The benefit of the family being with the infant is emphasized as well as improving nursing interventions that reduce overall anxiety for both infant and family and decrease the LOS (Abbett, 2012). In reviewing the literature our goal was and is to decrease exposure to opiates on the developing brain as well as creating a readiness to wean scale.

Based on our current statistics we have shown that through supportive comfort measures we are able to minimize the physiologic effects of withdraw including but not limited to the effects of central and autonomic nervous system dysfunction (MacMullen, 2014). As we have learned from other experts in this field having a collaborative group to standardize patient care policies decreases health care utilization, increases family satisfaction, decreases newborn exposure to opiates, and overall provides improved outcomes (Patrick, 2016). This two group comparison study will determine if this tool is making a difference in our length of stay positively or negatively as well as allow us to comfortably and safely wean our patients. As we continue to review the literature we will review inter-rater reliability and have local and national experts assess this modified scoring tool. In addition we will continue to ensure the parents understand they are the primary treatment in their infant's care as outlined in our NAS Parent Contract and their expectations while in the Neonatal Intensive Care Unit (NICU).

With current changes in practice and implementation of our NAS protocol our length of stay has drastically decreased. Pre-NAS protocol for all babies LOS 41.5 days and post-NAS protocol LOS 22.6 days (46% reduction), all term babies pre-NAS protocol LOS 50.4 days, post-NAS protocol 22.8 days (56% reduction), single substance exposed term pre-NAS protocol 54.2 days and post-NAS protocol 19.6 days (64% reduction) and multi substance exposed term pre-NAS protocol 47.7 days and post-NAS protocol 27.8 days (42% reduction). Impact on LOS of babies relative to percentage of baby's hospital stay that mother provides comfort measures 0% at 22.3 days (only 3 babies), <math>\leq 25\%</math> at 29.6 days, <math>\leq 50\%</math> at 28.8 days, <math>\leq 75\%</math> at 24.6 days, and >75% at 17.8 days. In addition our clonidine and morphine exposure has decreased exponentially with Clonidine exposure pre-NAS protocol 44.3 days and post-NAS protocol at 18.9 days and morphine exposure pre-NAS protocol 30.3 days and post-NAS protocol 17.2 days. With our continued multi-center and multi-disciplinary quality improvement collaborative we continue to decrease our length of stay, decrease opioid exposure, and effectively include these families as their infant's primary treatment.

*Keywords:* Neonatal Abstinence Syndrome, Opioid Exposed Newborns, The Finnegan Neonatal Abstinence Scoring System

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## PST2 - Poster Session 2

### Fostering Acceptance of Sexual Identity and Expression of the LGBT Community in the Classroom

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#### Abstract

An exploration of the pedagogical practices and perceptions of nursing faculty related to Lesbian, Gay, Bisexual, and Transgender (LGBT)-related content serves to bolster an understanding of how faculty can support students' acceptance of sexual identity and expression. This investigation includes a qualitative aspect focused on understanding the practices of nursing faculty related to the integration of LGBT content in the undergraduate curriculum. A quantitative aspect measuring nursing faculty attitudes and/or perceptions related to the LGBT community will further strengthen understanding. The purpose of the proposed study is to determine current nursing faculty attitudes and practices related to integrating LGBT-related content into their courses. The data gleaned from this study can positively impact educational practice and policy by identifying opportunities and barriers to the inclusion of LGBT-related content into nursing courses. Developing effective strategies for the integration of this content can enhance learner preparation related to their acceptance of LGBT individuals.

Including the LGBT-community and their specific health concerns in the larger discussion and thread surrounding cultural awareness and sensitivity is essential to prevent this population from suffering unnecessary health disparities. Although there is a plethora of cultural sensitivity and diversity literature related to many culturally specific patient populations (Huey, Tilley, Jones, & Smith, 2014; Truong, Paradies, & Priest, 2014; Tucker, Arthur, Roncoroni, Wall, & Sanchez, 2013), the literature specific to the inclusion of the LGBT community is still developing. There is also a body of literature to support cultural competence as a key curricular standard for nursing education (Mareno, & Hart, 2014), but the typical view of cultural competency is not inclusive of the LGBT community. Although cultural competency is a core curricular element in undergraduate and graduate nursing curricula (Mareno, & Hart), it is usually focused on ethnic and racial cultural competence. There is an emerging body of literature related to the LGBT individuals, but most relevant literature focuses on the long-term care needs of the aging LGBT individual (Fredriksen-Goldsen, Hoy-Ellis, Goldsen, Emler, & Hooyman, 2014) and their unique needs (Coulter, Kenst, Bowen, & Scout, 2014). Recently, there has been an emergence of nursing literature focusing on sexual health and sexual rights (Rew, Thurman, & McDonald, 2017), and nursing education (Echezona-Johnson, 2017). Additionally, LGBT-related literature is more prominent in disciplines outside of nursing. There is a gap in the nursing literature related to pedagogical practices that could enhance the acceptance of sexual identity and expression in nursing education.

Nursing faculty have a unique ability to foster the acceptance of sexual identity and expression through purposeful and inclusive approaches to teaching sensitivity towards LGBT individuals. Effective pedagogical practices which increase cultural sensitivity, inclusive of the LGBT community, could increase students' self-awareness of their potential biases and their knowledge related to this population. This awareness can help students to understand their perceptions of the LGBT community and shift their paradigms related to the importance of acceptance of sexual identity and expression when caring for this population. This shift, as well as an increase in knowledge related to LGBT individuals, can positively influence the effectiveness and quality of care for LGBT patients. Nurses' knowledge and attitudes related to patient populations can affect their quality of care (Deasey, Kable, & Jeong, 2014), so increasing awareness in nursing students related to the LGBT community has the potential to positively impact patient care. There is growing evidence that culturally insensitive care contributes health disparities (Tucker, Arthur, Roncoroni, Wall, & Sanchez, 2013), which is especially concerning given the unique needs of some LGBT individuals.

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## PST2 - Poster Session 2

### Psychometric Testing of the Presence of Nursing Scale in a Magnet Hospital

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#### Abstract

Nursing presence capability is a unique professional skill of practicing nurses. Nursing presence is an interpersonally-experienced phenomenon in which a nurse chooses to expend him/herself on the behalf of a unique patient. The resulting provision of specific types of nursing care (physical, mental, psychological, spiritual, and social) is based on the deep understanding of individual patient need derived during the nurse and patient interaction. Interactional quality of nursing communication skill may be diminishing due to technological advances which have decreased human-to-human direct communication.

Better understanding of this phenomenon along with methods of measurement is needed to be able to teach nurses and future nursing students this skill. Nursing presence has traditionally been deemed a phenomenon that is elusive to full understanding and measurement due to its mystical quality. Multiple concept analyses have illuminated pre-conditions, attributes and outcomes of nursing presence, however only three instruments have been developed to measure nursing presence.

The Measurement of Presence Scale (MOPS) (Hines, 1991) and its derivative visual analog scale (MOPVAS) (Foust, 1998) both measured nursing presence from a nurse perspective with no subsequent research. Initial factor analysis resulted in nine subscales for MOPS that varied when the MOPS was retested in the second study. The Presence of Nursing Scale (PONS) was recently developed to measure nursing presence from the patient's perspective in three U.S. acute care institutions (Hansbrough, 2011; Kostovich, 2002; Kostovich, 2012). Psychometric testing of PONS using exploratory factor analysis had not been reported at the time of this study.

This report documents research conducted in a large southeastern academic medical center using the PONS-Revised. A sample of 122 hospitalized, adult inpatients from ten acute-care nursing units were surveyed to conduct the first psychometric testing of this revised instrument using exploratory factor analyses. Seven research questions were explored to evaluate potential correlations between the PONS-R, patient satisfaction, nursing unit-specific workforce factors and patient demographic factors. Historic and concurrent patient satisfaction data using four nursing sensitive measures of the HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) standardized instrument were compared with PONS-R. Nursing unit-specific workforce factors including average nurse experiential level, registered nurse age, academic preparation levels of unit nursing workforce, and registered nurse turnover were compared with PONS-R.

Results: Internal consistency reliability of the PONS-R was established with the highest to date internal consistency rating ( $r = .974$ ) for related instruments. Test-retest reliability was established with a sample of 21 patients 48 hours after initial test with both parametric and non-parametric analyses (Pearson's  $r = .791$ , and Spearman's  $\rho = .872$ , both statistically significant at the .01 level). Construct validity was evaluated with comparison of PONS-R summed scores to nurse HCAHPS measures with Pearson's  $r = .736$  and correlation highly significant at the .01 level.

Divergent validity was verified by evaluating a small sample of thirteen from the unit with historically poorest performance on nursing HCAHPS measures. A statistically significant negative difference was found in both HCAHPS historical average score and patient-specific average HCAHPS score based on independent t-tests between divergent sample and remaining sample. The magnitude of the differences was large ( $\eta^2 = .92$ ) indicating a very large effect size (historical nurse HCAHPS) and between moderate and large effect size ( $\eta^2 = .11$ ) for concurrent nurse HCAHPS. A statistically significant negative difference was likewise found on PONS-R summed scores between the divergent unit sample and the remaining sample with poor performance unit [ $M=93.75$ ,  $SD=16.47$ ] and remaining units [ $M=108.59$ ,  $SD=15.46$ ;  $t(112) = -3.12$ ,  $p=.002$ ]. The magnitude of the differences was moderate ( $\eta^2 = .08$ ).

Exploratory factor analysis revealed one solid factor using eigenvalues over one following Varimax rotation and parallel analysis indicating the PONS-R instrument was measuring one concept. Using Oblimin rotation with two factors forced revealed a weak secondary factor in which items were centered on the concept of intimacy (physical and emotional closeness, and spirituality, suggesting the need for inclusion of additional items and a larger sample size to further psychometrically develop the instrument.

Correlations were found between PONS-R and unit-workforce factors which were not anticipated:: Average RN experience level to PONS-R:  $r = -.185$  (negative correlation significant at the .05 level). Average RN age to PONS-R:  $r = -.218$  (negative correlation). Percentage of Associate degree nurses to PONS-R:  $r = -.212$ , positive correlation, statistically significant at the .05 level. Percentage of Bachelor's degree nurses to PONS-R:  $r = -.212$ , negative correlation, statistically significant at the .05 level. Percentage of Master's degree nurses to PONS-R:  $r = -.077$ , minimal negative correlation, not significant. Annual RN turnover rate to PONS-R:  $r = -.048$ , minimal negative correlation. No statistically significant correlations were found for PONS-R in relation to patient demographics including age, race/ethnic background, gender, state of residence, state region, household annual income, or employment status. Finally, no statistically significant correlations were found between nursing presence and patient-specific variables such as estimated number of RN that provided care, nor the length of stay on the units.

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## PST2 - Poster Session 2

### Opportunities and Barriers to Building EBP Skills in the Clinical Setting via Mobile Technology

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#### Abstract

**Introduction:** Evidence-based practice (EBP) is a professional expectation for health care providers today. Nursing faculty create curriculum for the didactic and clinical environments that facilitate student learning in the EBP process. Mobile technology, a more recent variable in the educational environment, is one tool in the educator's toolkit for achieving this educational goal. This project looks at how two processes, curriculum mapping and research on BSN student usage of iPads in clinical education, helped with evaluating EBP curriculum in a BSN program and informing strategies for course revisions.

**Literature Review:** The AACN's BSN Essentials (2008) defines Scholarship for EBP as a key component of undergraduate curriculum. However, in their investigation about the state of nursing education, Benner, Sutphen, Leonard, & Day's (2010) found that "graduates continue to leave their educational experience with negative attitudes toward research along with perceptions that EBP takes too much time and cannot be realistically implemented in real-world clinical practice settings" (Melnyk et al., 2012, p. 415). Review and evaluation of the BSN curriculum is critical in preparing graduate nurses prepared for practice in an ever-changing healthcare system (Oermann, 2017).

The curriculum encompasses much more than a structure of courses, and is a dynamic interaction between students, faculty, experiences, content, and program outcomes (Oermann, 2017). Curriculum evaluation also reaches beyond traditional measurements of pass rates or course evaluations, and should critically assess whether the program prepares graduates that can practice in a contemporary healthcare system that is ever-changing and saturated with technology.

Mobile technology has held the interest of nurses for a long time as a possible solution to bridge EBP into real-world practice. In practice, mobile devices improve clinical workflows for documenting patient care electronically, and increasing access to clinical resources (Weston & Roberts, 2013). In education research, these devices have been beneficial since they "[provide students] with easily accessible, current evidence-based facts" (Raman, 2015, p.664).

Despite this history, there are some persistent barriers that continue to hinder the integration of mobile technologies into clinical education stemming from both the faculty and the students themselves. Studies find that faculty are often not role-modeling the use of devices in clinical education. Sometimes this is associated with a lack of faculty development and training on the devices prior to implementation; some faculty also just have negative attitudes towards mobile technology in clinical care (Raman, 2015; Lamarche, Park, Fraser, Rich, & MacKenzie, 2016; O'Connor & Andrews, 2015; Rubenstein & Schubert, 2017). The policies about mobile technology usage at health care facilities also interferes with use in the clinical setting (Lamarche, Park, Fraser, Rich, & MacKenzie, 2016).

The faculty-related challenges with implementation of mobile technologies in clinical education matches many of the same barriers found with establishing EBP in clinical settings. Kajermo et al. (2010) systematically reviewed over 63 studies using the BARRIERS scale and aggregated information to identify persistent barriers. Fifty-three studies ranked the issues based on response frequency. From those rankings, the Setting Barriers and Limitations category is the biggest barrier to EBP followed by Presentation and Accessibility of the Research.

**Methods:** This research was conducted within a traditional BSN program that is part of a School of Nursing offering BSN, MSN, and DNP programs. The BSN program is an upper-division admission program, admitting cohorts of 90 students twice a year, and is offered over four semesters of study. The SON master plan of evaluation outlines the frequency of curricular review and evaluation which is completed every two years.

The curricular framework is founded on Bronfenbrenner's ecological systems theory, and the Environments of Care model (Ervin, Bickes, & Schim, 2006). There are seven student learning outcomes (SLO) that all graduates must be able to demonstrate upon completion of the program. Of significance to this study is the scholarship SLO. The scholarship SLO describes that students will contribute to excellence in nursing practice by identifying and critiquing research evidence and integrating it with clinical practice, client preference, cost-benefit, and existing resources.

Throughout the curriculum review and evaluation process the Undergraduate Curriculum Committee (UGCC) maps the AACN BSN Essentials and the Program SLOs to the course objectives. The map also includes detailed descriptions of the course content, student learning activities and strategies, and the teaching learning environment. The BSN program uses a variety of quantitative formative and summative evaluation tools. The UGCC consists of BSN program faculty who review course maps and relevant outcomes for each course and provide a peer critique of each course. The course faculty meet with the UGCC to discuss course strengths, weaknesses, challenges, and go over key findings. Feedback and recommendations for improvement or change are documented and provided to faculty for integration into courses.

In order to explore the student perspective, the Health Sciences and Nursing Librarian designed and conducted a sequential, mixed methods study. The research was approved by the organization's Institutional Review Board #16-0106. Participants were recruited from the second semester course roster (n=90); two cohorts were involved to control for cohort differences. The first phase of research was a survey that gathered basic demographic information, years of experience with using mobile technologies, clinical course placement, and list of resources used. The survey also adapted Pryse, McDaniel, & Schafer's (2014) EBP Work Environment Scale in order to gauge student perceptions about how clinicians at their placements valued EBP, demonstrated EBP behavior, and provided access to research evidence. Interviewees were recruited from survey responses for the second phase of the project, student interviews. The qualitative methodology allowed for follow up discussion related to specific survey responses. Faculty participated in piloting the survey and in-depth interview guide.

**Findings:** One-hundred eighteen students participated in the survey and 12 students in the follow up interviews. Students had varying patterns of use for their iPad across the three different clinical courses. Overall, a majority of students (54%) did not use their iPad in clinical coursework. Students were least likely to use the iPad in Women's Health course (9%) and most likely to use it in their Clinical Applications II (Medical Surgical) course (34%). Follow up interviews found that the presence and availability of computers in facilities, limitations of the academic EHR for documentation, perceptions of distraction, and concerns of theft were the major reasons preventing iPad adoption.

Consistent across cohorts and clinical courses, students mostly agreed that they had access to relevant research (86%) and that the organizations valued EBP (87%). However, several students disagreed (12%) or were neutral (26%) about whether they had access to databases. Instead, the most frequently used resource was Google. Many also disagreed (15%) or were neutral (22%) about whether nurses discussed research at their clinical locations. In the follow-up interviews with the students, the researcher found that students were aware of the term EBP due to mentions of the phrase but the reality was fuzzy. Students often conflated EBP with research:

“normally it is something that I or a nurse... see as a problem or something that they think might correlate and so they run an experiment”

“I would say...that its got to be like any scientific study, so its got to be something that can be repeated”

Students also indicated that they lacked understanding of how they would do it outside of the educational environment.

“I never thought about it as creating EBP as a nurse. I didn’t know if like just nurse researchers did that or if like any nurse can like contribute to forming or creating literature and that sort of thing”

Concurrently, the UGCC found that although scholarship is a SLO that is linked to each course through a focused objective, comprehensive content mapping did not identify clear course activities, readings, lectures, or assessments in first and second semester courses. In addition, there was a not clear link between course content and the new mobile technology integrated into the program. The UGCC made recommendations for individual course revision to better demonstrate student competency with the scholarship SLO.

*Integrating Evidence into Educational Practice* - In response to the UGCC course feedback, nursing faculty revised a foundations course with a more explicit connection and set of activities related to EBP. The librarian consulted on the content development for the course based upon the student responses from the research project. The EBP Competencies for Practicing Registered Nurses were reviewed to guide lesson planning (Melynk et al., 2014). The nursing faculty and librarian focused on establishing a broad definition of EBP in the course and addressing only three of the foundational competencies in order to match EBP better with the student’s level of development. These competencies also mirrored the areas of the nursing care process, another topic in the course. Based on this, the in-class lecture and discussion then aimed to help students walk through these competencies using clinical expertise they were developing that semester, particularly around health assessment and pulmonary hygiene. The new content module was piloted during the 2016-2017 academic year and further revisions are ongoing. In addition the librarian has provided a continuing education seminar on EBP instruction across the curriculum.

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## PST2 - Poster Session 2

### Self-Awareness of Civility Among Nursing Faculty in Creating a Positive Learning Environment

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#### Abstract

Students learn most effectively in environments that facilitate learning by encouraging and supporting them. Unpredictable, unstructured and overwhelming classroom environments can leave students with feelings of vulnerability and anxiety and ultimately contribute to poor learning outcomes. Faculty members bear responsibility for being positive role models and creating positive learning environments where students feel safe in engaging an open of ideas. Although self-awareness of the faculty is the strongest predictor of overall success of the students' learning in the classroom, no research has systematically examined the faculty's self-awareness of civil behavior. This study will explore nurse faculty's awareness of their civil behaviors and their impact on creating a positive learning environment.

The objective of the study is to examine nurse faculty's awareness of their civil behaviors in creating a positive learning environment

An exploratory descriptive research design utilizing an online web-based survey as a means of exploring the perceptions of nurse-faculty of their civil behaviors in the classroom in creating a Positive Learning Environment (PLE). Data will be collected using the demographic questionnaire and "Civility Index for Faculty", self-report questionnaire consisting of 20 items on nurse faculty's civil behaviors in creating a PLE.

Descriptive statistics will be conducted to describe the demographic variables and total score of civility. Correlations between demographic variables (age, education, years of nursing experience, years in teaching nursing students); and tests of differences across demographic variables (ethnicity and education) and their awareness of civil behavior in the classroom in creating a PLE.

Findings will reveal how the level of awareness of nursing faculty with regard to civil behaviors in order to create a PLE

We anticipate that this study will provide invaluable information, raise awareness among nurse faculty and determine strengths and to create opportunities for engaging civil behaviors in order to create and enhance a PLE for students.

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## PST2 - Poster Session 2

### Accelerated Nursing Students Perception of Factors Influencing Retention

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#### Abstract

The Institute of Medicine (IOM, 2011), set a goal to increase the percentage of the current nursing workforce holding a Bachelor of Science degree (BSN) to 80% by the year 2020. With the increased emphasis on preparing nurses at the baccalaureate and post-baccalaureate levels, the accelerated degree program is an innovative approach to nursing education, which is gaining momentum for non-nursing graduates (American Association of Colleges of Nursing, [AACN], 2014). Designed to build on previous learning experiences, accelerated nursing programs provide a way for individuals with undergraduate degrees in other disciplines to transition into nursing (AACN, 2014). Students admitted to accelerated nursing programs meet rigorous admission criteria; despite the rigor, the attrition rates remain unacceptably high (Rouse & Rooda, 2010).

Accelerated nursing programs have demonstrated an ability to increase the number of nurses entering the workforce. What is glaringly omitted from statistics about these programs is the rate of attrition. The American Association of Colleges of Nursing (AACN) and the National League for Nursing (NLN) are authorities on the state of nursing education programs in the U.S. Yet, these foremost authorities currently provide data on graduation rates only. A review of the literature reveals attrition rates are often speculated or unsubstantiated by data. However, when reported, data explaining the current state of attrition or retention in schools of nursing across the country is inconsistent (Lindsey, 2009; Meyer, Hoover, Maposa, 2006; Seldomridge & DiBartolo, 2005; Suplee & Glasgow, 2008). Reports indicate attrition rates internationally are as high as 27.6% (Buchan & Seccombe, 2011, Willis, 2015).

A new trend has emerged at a historically Black college and university (HBCU) located in the southeast region of the United States; a significantly large number of students failed or withdrew from major nursing courses (Adult Health Nursing – II) in the terminal semester of the program. The attrition rates for this course from 2012 to 2014 were 22.7%, 9.1%, and 27.1%, respectively. Informally, many of these students verbalized family stressors (i.e., moving, military deployment, or change in duty station, death of a family member, childcare, and family responsibilities), work responsibilities, and test anxiety as the major issues hindering their academic success (Lott, S., 2016, p. 12).

Regrettably, not every student admitted to a nursing program will complete the program in the allotted timeframe. Therefore, academic success and retention of nursing students is paramount to meet the need for a more qualified nursing workforce.

The author set out to explore students' perception of the factors, which influence their retention given the multifaceted and demanding nature of attending nursing school while maintaining balance within a family. The specific aims of this research were to identify accelerated nursing students' perception of the restrictiveness or supportiveness of factors, determine the influence of academic variables and the correlation of demographic characteristics on retention.

Eighty-nine students enrolled in two accelerated/second-degree nursing programs identified the perceived factors, which influenced their retention. The Nursing Undergraduate Retention and Success (NURS) model was the conceptual framework that guided the research and the Student Perception Appraisal – Revised (SPA-R) was used to measure variables.

Self-reporting methodology was utilized to describe students' perception of the most influential, restrictive, and supportive variables. Accelerated nursing students' perceived transportation, family, and friend support as the greatest influencers of retention. The study neither substantiate students who perceived academic variables as greatly supportive would have lower grades, nor did it support the notion that underrepresented minorities in nursing would find environmental variables more restrictive of retention. Participants noted professional integration and socialization were neither supportive or restrictive of retention. Thus, strategies have been introduced to support students while matriculating and to ensure socialization and integration into the profession.

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## PST2 - Poster Session 2

### Predictors of Work Engagement Among Doctorally-Prepared Nursing Faculty

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#### Abstract

The shortage of nursing faculty has prompted research to look at ways we can recruit and retain nursing faculty members and concepts such as the work engagement of nursing faculty are one such way we can do so. The existing research creates a strong knowledge base to understand work engagement, and to understand the organizational effects work engagement can have in academic environments. Work engagement is measured by the vigor, absorption and dedication one has to their job. The construct has not been studied in full-time nursing faculty, and there is clear need to do so. A growing body of research supports the study of work engagement within individual occupations and roles as researchers have found that different occupations and roles within experience different types of job demands and job resources (Rothmann, 2005). Additionally, it has been shown that the work engagement of faculty at a university may have a direct influence on student retention (McDonald, 2015). It is essential that we retain our quality nursing faculty, and the study of work engagement is one way we can address the issue.

Work engagement has been shown to decrease turnover, increase organizational commitment and increase career satisfaction (Bakker, Demerouti & Schaufeli, 2003; Bakker, Demerouti & Schaufeli, 2005). In addition, work engagement among faculty has been shown to have a positive correlation to student outcomes (Mancz, 2013; Sokolov, 2017; Parker et al, 2012). It is essential for nursing administration to understand the predictors of work engagement in nursing faculty so that they can then develop and implement strategies that will encourage the retention of valued faculty members. A study is proposed can help provide the foundation necessary for future outcomes-based research, and the economic impact of engaged nursing faculty. In addition, it can hopefully provide support for the allocation of funding and support to include work engagement in quality improvement projects, education based research and the evidence-based support for inclusion into education policies, CCNE accreditation standards and AACN position statements.

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## PST2 - Poster Session 2

### Standardized Patient Simulation as an Active Learning Strategy in Oncology Symptom Management: A Pilot Study

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#### Abstract

**Background and Significance:** More people are surviving cancer and living with the long-term and late effects of the disease and its treatments. Consequently, nurses in all healthcare settings will provide care for patients with or surviving cancer (Komprood, 2013). The management of symptoms related to cancer and its treatments is a core role of the oncology nurse (Brown, 2015). Poorly managed cancer-related symptoms have been associated with negative clinical outcomes, such as a decline in functional status, poor quality of life, and even reduced overall survival (Dodd et al., 2010; Franceschini et al., 2013; Ryu et al., 2010). New nurses do not have the specialized knowledge or skills required to effectively care for cancer patients (Kuhrik et al., 2008) as oncology content taught in undergraduate nursing curricula is often limited to ensuring minimal safety standards necessary for entry to practice (Simmers, 2014). Consequently, it is a major challenge for nurse educators today to prepare baccalaureate nursing students with the evidence-based knowledge and skills required to effectively manage the complexities of symptom management in oncology clinical practice.

The use of simulation, as an active teaching strategy, has been found to be effective in enhancing the development of Registered Nurses' knowledge, skills, and attitudes needed to provide high-level, holistic, evidence-based nursing care to cancer patients and their families (Komprood, 2013; Simmers, 2014). One type of simulation is Standardized Patient (SP) simulation. SP simulation involves the use of trained actors to portray the patient in a simulation-based learning activity, thus allowing students to practice communication and psychomotor skills in a simulated clinical environment (Gliva-McConvey, n.d.). SP simulations allow students to practice addressing sensitive patient issues in a safe environment (Becker et al., 2006). SP simulations have been successfully implemented in medical education to support student learning of communication techniques and to provide students with an opportunity to practice conveying bad news to oncology patients (Eid, Petty, Hutchins, & Thompason, 2009; Kiluk, Dessureault, & Quinn, 2012). However, no researchers have examined the effectiveness of SP simulation in assisting undergraduate nursing students in applying knowledge and skills learned in the classroom to oncology symptom management practice.

**Purpose:** The purpose of this pilot study was to evaluate the effectiveness of SP simulation, as an active learning strategy, in enhancing senior baccalaureate nursing students' ability to connect evidence-based knowledge and skills gained in theory learning sessions to oncology symptom management practice.

**Research Questions:** 1. What is the effect of SP simulation, as an active learning strategy, on senior baccalaureate nursing students' a) competence; b) confidence; and c) knowledge related to evidence-based, oncology symptom management? 2. What are senior baccalaureate nursing students' a) perceptions of and b) satisfaction and self-confidence in SP simulation, as an active learning strategy, to apply evidence-based, oncology symptom management knowledge and skills?

**Methods:** A longitudinal, mixed-methods design was used to conduct this pilot study at a mid-sized Catholic university in the northeastern United States. The pilot study was conducted during the spring semester of 2017 with a cohort of senior baccalaureate nursing students enrolled in a seven week seminar in evidence-based, oncology symptom management. Institutional Review Board approval was obtained for this pilot study. The overall goal for the development of the SP simulation was for students to apply evidence-based assessment, counseling, and education knowledge and skills learned in the theory learning sessions in a simulated outpatient oncology setting. Two 20-minute SP simulation scenarios were developed: 1) chemotherapy in colorectal cancer, and 2) radiation therapy in breast cancer. Students participated in each SP simulation scenario in groups of 4 to 5 as either a Registered Nurse or observer. Each simulation was followed by a 40-minute debriefing session using the Debriefing for Meaningful Learning (DML) approach (Dreifuerst, 2012). Both SP simulation scenarios underwent two person expert review for both oncology content and simulation pedagogy prior to implementation.

Data collection occurred at three study time points: T1) pre-learning sessions, T2) pre-SP simulations, and T3) post-SP simulations. A 24-item, researcher-developed instrument was used to measure students' knowledge, confidence, and self-reported competence in oncology symptom management at all three study time points (T1-T3). The National League for Nursing's (NLN's) Student Satisfaction and Self-Confidence in Learning Tool (Jeffries & Rizzolo, 2006) was used to measure student satisfaction and self-confidence in learning with the SP simulations at T3. Nine researcher-developed questions (4 open-ended and 5 Likert-style questions) were used to gain further insight into students' satisfaction with and perceptions of the SP simulations at T3. Quantitative data were analyzed using descriptive statistics and Repeated Measures Analysis of Variance (RM-ANOVA) with post-hoc pair-wise comparisons of mean differences adjusted for multiple comparisons using the Bonferroni correction. Qualitative responses to open-ended questions were analyzed for themes using conventional content analysis.

**Results:** For this pilot study, the sample consisted of one section of senior seminar students (N=9). All students were female with a mean age of 21.0 years old. The majority of students were White (77.8%) and Non-Hispanic / Non-Latino (88.9%). There was a statistically significant increase in student's self-perceived competence over time [ $F(2,16) = 23.21, p < 0.001$ ] with mean post-SP simulation competence scores (T3) demonstrating a significant increase from pre-learning session (T1) ( $p = 0.001$ ) and pre-SP simulation (T2) ( $p = 0.003$ ). Similarly, there was a statistically significant increase in student's confidence over time [ $F(1.2, 9.8) = 18.27, p = 0.001$ ] with post-SP simulation student confidence scores (T3) demonstrating a significant increase from pre-learning session (T1) levels ( $p = 0.001$ ) and pre-simulation (T2) levels ( $p = 0.002$ ). Student mean knowledge scores increased over time; however differences in these scores did not achieve statistical significance ( $p = 0.345$ ). Students reported a high-level of satisfaction ( $M = 23.40 + 2.07$  [20-25]) and confidence ( $M = 36.20 + 3.56$  [32-40]) in learning with the SP simulations. Analysis of open-ended responses resulted in three qualitative themes: realistic application, enjoyable and helpful, and suggestions for improvement.

**Discussion:** Findings from this pilot study provide preliminary evidence that SP simulation may enhance student self-perceived competence and confidence related to evidence-based oncology symptom management. Findings also suggest that SP simulation increased students' satisfaction

with and confidence in learning in this population. Thus, SP simulation holds promise as an active teaching strategy to enhance undergraduate student learning of evidence-based, oncology symptom management knowledge and skills. Although, it must be noted that due to the small and homogeneous sample, the findings from this pilot study must be interpreted with caution. Further research is warranted to definitively determine the effect of SP simulation on senior baccalaureate nursing students' ability to apply evidence-based knowledge and skills gained in theory learning sessions to oncology symptom management practice.

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## PST2 - Poster Session 2

### Identifying Student Nurses' Barriers to Research Participation

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#### Abstract

**Background:** Evidence-informed practice is vital to safe nursing care; hence there is a significant need for more nurses and nursing students to be involved in the generation of such evidence. During the literature review, it was noted that there is a paucity of studies on the challenges and barriers to student nurses' research participation. The purpose of this study was to determine the challenges to research involvement faced by student nurses in the Bachelor of Science in Psychiatric Nursing (BSPN) and Bachelor of Nursing (BSN) programs at a community college in Vancouver, British Columbia, Canada.

**Method:** For this study, 360 nursing students from the BSPN and BSN programs were recruited using purposive sampling. All student nurses within the community college were eligible to participate; the only exclusion criteria were the final semester of preceptorship students as they were not accessible on campus during the period of data collection. Consenting research participants were given a 15 item questionnaire to complete. Quantitative and qualitative data was collected. Quantitative results were analyzed using Microsoft Excel, SPSS and qualitative responses were analyzed for themes.

**Results:** In total, 360 student nurses participated with 43% (156) from the BSPN and 57% (204) from the BSN program. Most of the participants identified as female 83% (299), with only 17% (57) identifying as male. Participants were mostly between ages 19-45. The most common challenge that was identified for both the BSN and BSPN programs was a lack of time ( $m=4.34 \pm 0.92$ ). The other two commonly identified barriers were not enough incentives ( $m=3.50 \pm 1.20$ ) and lack of integration into the curriculum ( $m=3.39 \pm 1.22$ ). Common themes from qualitative responses reiterated that time, incentives, support and knowledge about participation in research were challenges faced by nursing students in regard to research participation.

**Implications:** A similar report from Bäck-Pettersson, Jensen, Kylén, Sernert, and Hermansson, (2013) found that that more should be done to identify barriers and challenges to nursing students' research participation. Identification of barriers that nursing students face will contribute to the body of knowledge aimed at equipping pre-registration or student nurses with the information and skill necessary for research participation and provision of evidence-based care. It will also allow for further research into strategies for overcoming barriers to increase students' research participation. Finally, these findings can be used to inform the development of curriculum to encourage and support nursing students' participation in research and other scholarly activities.

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## PST2 - Poster Session 2

### An Educational Method to Enable Nursing Students to Develop the Skills Needed for Clinical Reasoning

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#### Abstract

One of the challenges in nursing education is the need to enable students to internalize the skills needed to implement the thought processes of critical thinking and clinical reasoning. The research of Patricia Benner has been instrumental in explaining the need to improve the critical thinking and clinical reasoning skills of newly licensed registered nurses. Dr. Benner's research has changed the focus of nursing to include these skills in the education process. The

study was designed to evaluate the efficacy of a classroom educational method designed to help students improve these skills. The ex post facto study was conducted at one Southern community college with students enrolled in an Associate Degree nursing program. The study used the nursing educational theory of Patricia Benner and the general educational theory of constructivist educational theory as a theoretical base. Archived data was collected from the results of two cohorts of nursing students based on their performance on two separate administrations of the Assessment Technologies Institute (ATI) critical thinking examination. The data was analyzed using central tendency statistics, a paired sample t-test to determine the differences between ATI scores for each group and an independent sample t-test to determine the differences in the change in ATI scores for the two groups.

The results of the investigation indicate that the education method was effective in assisting students to improve the cognitive skills needed for clinical reasoning. The cohort that used the method had significant increase in the ATI critical thinking examination scores from the initial administration to the second administration. It was interesting to note that the most growth occurred with those students who struggled with the critical thinking process at the beginning of their education. It was also noted that there was no significant change in the scores for the cohort of students who did not use the educational method. This was the case even though both cohorts had the same curriculum, resources, faculty, and facilities.

The conclusions from the research were that the method should be researched further to identify if similar results would be obtained if a different curriculum were involved and with Baccalaureate programs to compare results. Research could be conducted to determine the growth of specific cognitive skills related to clinical reasoning. It is also suggested that qualitative research be initiated related to the method. In general, this research suggested that the method was effective and would be appropriate for implementation in nursing education programs.

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## PST2 - Poster Session 2

### Factors Influencing Information Literacy Self-Efficacy of Prelicensure Baccalaureate Nursing Students

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#### Abstract

**INTRODUCTION:** Nurses must be adept at navigating vast amounts of information in today's technology-rich care environment. As hospitals seek to improve quality of care and information sharing among patients and care providers, information and communication technologies (ICTs) dominate the healthcare landscape. Despite efficiencies in delivering patient care afforded by ICTs, the threat of overlooking vital information due to an overload of digitized data is now a reality for nurses. The rapid proliferation of information sources available to healthcare professionals has led to the identification of information literacy (IL) as essential to the provision of safe, quality patient care. In turn, scholars are calling for the restructuring of nursing education to incorporate IL skills necessary for utilization of research associated with evidence-based care.

The assimilation of IL into the nursing curriculum provides students with the basic knowledge to apply skills for evidence-based practice (EBP) that are required to improve the quality of care in complex nursing. The American Library Association (ALA) defines IL as "the ability to recognize when information is needed and have the ability to locate, evaluate, and effectively use the needed information" (ALA, 1989, para 3). According to the ALA's (2000) *Information Literacy Competency Standards for Higher Education*, an information literate individual demonstrates competency in a five-step process: (1) determine the extent of information needed; (2) access information effectively and efficiently; (3) evaluate information and its sources critically; (4) use information effectively to accomplish a specific purpose; and (5) understand the economic, legal, and social issues surrounding information use. Fundamental to engagement in EBP, IL competencies ensure nurses have proper skills in the collection, analysis, evaluation, and utilization of data, information, and resources. As the keystone of EBP, IL encompasses skills necessary for the discovery, analysis, and use of the best research evidence.

**BACKGROUND/SIGNIFICANCE:** IL skills are threaded throughout the nursing process as the nurse must be able to determine what information is needed, find information based on the resources available, appraise the information while determining the validity of the source, apply the information to practice, and evaluate improvements from the application of information. Thus, IL competencies are fundamental to nursing and EBP. The components of IL also directly align with those of the literature review process, as research utilization requires the ability to retrieve and evaluate scholarly articles from a variety of sources. Both processes involve the ability to identify when information is needed, formulate a question or problem based on evidence from research or data collected, critique the validity and reliability of information sources, and synthesize information to generate knowledge or answers addressing the identified question(s) or problem(s).

Despite the link between IL skills and EBP, a report from the National League for Nursing ([NLN], 2008) indicated that only 40% of nursing programs surveyed had specific IL requirements for graduation. Although competency standards provide direction for the development of information literate graduates, higher education continues to lag in incorporating IL competencies into nursing curricula. However, it is imperative that nursing students demonstrate the ability to apply published research effectively in their practice to assure the provision of quality, safe, patient-centered care as they transition into practice. Therefore, IL education in nursing programs must focus on the ability to identify pertinent publications from multiple sources of information, analyze the validity of the information, synthesize information from various sources to develop new knowledge, and transfer this knowledge into practice.

A limited number of empirical studies have examined IL educational strategies but with small sample sizes, other health disciplines, associate-degree students, or with a focus on EBP as a whole rather than IL competency. In addition studies specific to pre-licensure nursing students focus on measures of computer literacy or technological competence. Recent studies published on IL skills of nursing students failed to incorporate the accepted ALA standards and competencies and were limited to researcher-developed instruments without reported reliability and validity measures. As no specific theories, competencies, or frameworks were used to guide these research studies, their findings may not have helped to build on a broader understanding of IL within the context of nursing education. Therefore an important research opportunity exists to enhance IL skills of nursing students to help them develop a repertoire of IL skills, enhance the quality of teaching and learning, and foster the needed skills for clinical practice and lifelong learning.

The science of nursing education needs empirical research to assess IL skills of students and inform the development of evidence-based strategies to promote IL competency development (NLN, 2008). Today's millennial students, skillful at navigating technologies with high levels of computer self-efficacy, may use technology daily in a social context but be unfamiliar with sources of information and/or how to use information sources for professional nursing practice. Knowledge of demographic and educational factors associated with higher IL levels would enable faculty to identify students at risk for having low IL skills and to direct resources toward curricular improvements. Moreover, describing the development of IL competency is imperative to its wider acceptance of importance in nursing education and insurance of student success and readiness for practice.

**PURPOSE:** The purpose of this proposed study with pre-licensure baccalaureate nursing students is three-fold: 1) describe pre-licensure baccalaureate senior nursing students' IL self-efficacy levels utilizing the valid and reliable Information Literacy Self-Efficacy (ILSES) tool; 2) analyze the relationship between demographic factors, educational strategies, and IL self-efficacy; 3) provide a rich description of educational strategies employed by nursing programs across the United States aimed at achieving IL competency. Roger's Diffusion of Innovations provides the theoretical framework for this study. Mixed methodology is appropriate for the purpose of this study which aims to expand upon previous quantitative research studies regarding student factors influence IL self-efficacy while also exploring lesser known IL educational strategies employed by pre-licensure baccalaureate programs through qualitative analysis. The mixed method design will ensure that factors impacting the development of IL self-efficacy of nursing students are examined through a variety of lenses.

The Information Literacy Self-Efficacy Scale (ILSES), a valid and reliable 28-item measure, has been used in several studies in higher education outside of the nursing discipline to operationalize tasks of the ALA's competency standards. The ILSES, developed by Kurbanoglu, Akkoyunlu, and Umay (2006) is the only self-efficacy measure of IL competency to adopt the ALA's definition and competency standards, as evidenced in the structure and content of the survey. Two scholarly works, a study by Stokes and Urquhart (2011) and dissertation by Wendekier (2015), utilize the ILSES with pre-licensure nursing students to operationalize tasks of the ALA's competency standards. With an overall Cronbach's alpha of 0.91, the



ILSES contains 28-items requiring participants to rate confidence and competence in conducting IL tasks with higher scores indicating increased perception of IL self-efficacy. As ILSSES has been utilized repeatedly in other disciplines of higher education and has established reliability and validity with nursing students, the survey tool will be utilized in this proposed study.

**METHODS/DATA ANALYSIS:** This study will use a sample of pre-licensure baccalaureate nursing programs across the United States. The researcher will recruit a stratified sample of senior nursing students from pre-licensure schools of nursing (SON) across the northeast, central, western, and southern geographical regions of the United States. The study population will be comprised of at least one pre-licensure baccalaureate SON from each of the four identified geographical regions. Criteria for SON participation include those programs in the U.S. offering a pre-licensure baccalaureate nursing degree accredited by either of the two national accreditation bodies, the Accreditation Commission for Education in Nursing (ACEN) and/or the Commission on Collegiate Nursing Education (CCNE). Students will be invited to participate in the study via an emailed Qualtrics link which will include the ILSSES followed by demographic questions. As well one faculty member from each SON will be invited to participate in a taped interview using a data collection tool with open-ended qualitative interview questions developed by the researcher.

Quantitative data review will include univariate or descriptive analysis using frequency distributions, measures of central tendency, and calculated variability with data collected from the ILSSES. The sample will be described using descriptive statistics and analysis of ILSSES results will occur through mean scores and standard deviations on the overall scale and question items. A hierarchical multiple regression model will then be used to assess the ability of each independent variable to act as a predictor of IL self-efficacy scores using the ILSSES tool. Qualitative data analysis will occur through directed content analysis strategies outlined by Hickey and Kipping (1996). Content analysis is a research method that has come into wide use in current health studies. Three distinct approaches to content analysis exist: conventional, summative, or directive; the latter will be used in this study to guide qualitative data analysis as it provides a method to validate or extend a theoretical framework or theory. The directed approach to content analysis will be used to support and extend existing research on IL educational interventions.

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## PST2 - Poster Session 2

### A Multiple Case Study of Associate Degree Nursing Student Experiences on NCLEX-RN® Preparation

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#### Abstract

A major challenge in the nursing education system is to assist nursing students to be successful in the program and on the National Council of Licensing Examination for Registered Nurses (NCLEX-RN). Nursing schools have a critical responsibility for contributing to the nation's need for more qualified nurses in order to reduce the impact of the nursing shortage, and maintaining first-time NCLEX-RN pass rate at or above the national average. The AACN reports show that as the Baby Boomers age and retire, the need for more health care and professional nurses increases in the US (AACN, 2014). In order to meet the increasing demand for professional registered nurses, nursing educators in the nursing school are responsible to enroll and educate sufficient students to be successful on the NCLEX-RN. A hospital-based nursing school in the northeastern region of the US has experienced a decline in NCLEX-RN pass rates since 2008. The reason for the low pass rate from 2008 to 2013 was unclear. The accreditation status of the school was in jeopardy as the accreditor agency evaluated the school's first-time pass rate in 2013. The reason for the low pass rate from 2008 to 2013 was unclear. A study conducted by Chen and Lo (2015) on student satisfaction, affirmed the importance of studying the student experiences for better program accountability. Charalampous and Kokkinos (2014) supported that since the education focuses on students, their perspectives are fundamental aspects for program effectiveness. To understand student self-regulated behaviors, learning approaches and other factors that impact their academic outcomes, the student perspectives on learning and preparing for NCLEX-RN were explored.

The purpose of this qualitative multiple case study was to explore nursing student experiences on NCLEX-RN including learning styles and approaches. Liew, Sidhu, and Barua (2015) stated that the learning approaches and styles in individual students vary and their learning needs are different from one to other. There have been studies regarding learning styles among nursing students to improve the teaching styles and the curriculum (Alkhasawneh, 2013; Andreou, Papastavrou, & Merkouris, 2014). However, studies conducted on learning styles used by nursing students in preparation for NCLEX-RN are scarce. Kolb's experiential learning theory was the framework for the study to predict the preferred learning style for nursing students in preparation to NCLEX-RN. Kolb proposed in ELT that "Learning is the process whereby knowledge is created through the transformation of experience" (Kolb, 1984, p. 38). Kolb's ELT has four learning styles including diverger, assimilator, converger and accommodator where "the diverger learns through concrete experience, the assimilator uses reflection and observation, the converger utilizes abstract conceptualization, and the accommodator learns through activities" (Poore & Cullen, 2014, p. 245).

In reviewing studies that used Kolb's learning styles, the most regularly revealed learning styles for nursing students were accommodator and diverger (Fleming, 2008; Hallin, 2014; Kolb, 2000). Kolb (1984) emphasized students identify their preferred learning style so that they can progress as an effective learner. Since the diverger learns through concrete experience and the assimilator uses reflection and observation, these styles cannot be excluded fully from nursing students' learning process. Therefore, this study also focused on identifying the preferred learning styles used by nursing graduates to prepare for NCLEX-RN in-depth and find out whether the findings are in agreement with theory propositions or contrast (Aneshensel, 2012; Baškarada, 2014). A purposive sampling method was used to recruit participants. Interviews were concluded when saturation of data was achieved. The final sample for the study was nine nursing graduates as three cases defined by the year of graduation from 2011 to 2013. Kolb's experiential learning theory was the framework for the study and Kolb's Learning Style Inventory (LSI) was used to explore learning styles.

Eight major themes were emerged from the study: (a) a study plan is an important learning approach for NCLEX-RN; (b) constant practice of NCLEX-RN style questions and answers is a helpful learning approach; (c) note taking and summarizing is an effective learning approach for NCLEX-RN; (d) staying focused is a learning approach for NCLEX-RN preparation; (e) commitment to study is crucial while preparing for NCLEX-RN; (f) students need to watch and think (Assimilating) while learning for NCLEX-RN; (g) students learn by doing and thinking (Converging) for NCLEX-RN and (h) students learn by feeling and watching (Diverging) while preparing for NCLEX-RN.

As an implication to theory, the results extended Kolb's ELT by revealing that some nursing students learn by watching, when others learn by doing, feeling or thinking. This study results confirmed that the nursing graduates gain knowledge by watching, thinking, feeling and doing and transform that knowledge in to new knowledge mostly by thinking during NCLEX-RN preparation. The study finding also support that the most preferred learning style for nursing students during NCLEX-RN preparation was assimilating or watching and thinking style. The recommendations for practice included (a) support nursing students to take a deeper learning approach, (b) plan mandatory study strategy seminars, (c) establish a NCLEX-RN review center, (d) include higher cognitive level questions on the course examinations, (e) support the student after graduation by extending the NCLEX-RN review center, and (f) identify student preferred learning styles. Recommendations for future research included (a) a quantitative correlational study to examine the major themes, (b) a mixed method study to explore nursing students learning styles and NCLEX-RN outcome, and (c) a quantitative comparative study of student learning approaches, learning styles and NCLEX-RN outcomes in multiple nursing programs.

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## PST2 - Poster Session 2

### Servant Leadership in a Baccalaureate Nursing Program: A Case Study

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#### Abstract

**Background:** All nurses are leaders every day (Anderson, 2016; Fahlberg & Toomey, 2016). The immediate need for complex skills, including leadership skills, challenges entry-level nursing professionals who have limited leadership experience (Tropello & DeFazio, 2014). Despite the many challenges they face, entry-level practitioners must master leadership skills to succeed (Anderson, 2016; Fahlberg & Toomey, 2016). Nurses enjoy benefits of leadership including: increased care coordination, quality, safety, and outcomes (Anderson, 2016; Fahlberg & Toomey, 2016; Tropello & DeFazio, 2014). Thus, leadership development is an important and essential element in entry-level, specifically baccalaureate, nursing programs. The principles of Greenleaf's Servant Leadership Theory (1977), such as service to others, mirror the vital leadership skills needed by nurses; thus, it is an ideal framework to study leadership development in baccalaureate nursing programs (American Association of Critical-Care Nurses [AACN], 2016; Anderson, 2016; Fahlberg & Toomey, 2016; Fields, Thompson, & Hawkins, 2015; Robert K. Greenleaf Center for Servant Leadership [RGCSL], 2016). Greenleaf (1977) based his Servant Leadership Theory on the premise that leaders first serve, then decide to lead. Greenleaf asserted the focus on others' needs and sharing of power by the leader increases performance and personal development of the people being led (RGCSL, 2016; Spears, 2010). Principles and characteristics important to servant leadership include, for example: service to others, holistic approach to work, listening, empathy, caring, trust, altruism, and empowerment. Despite formal recognition of Greenleaf's Servant Leadership Theory over 40 years ago, incorporating servant leadership principles into baccalaureate nursing education is not well studied (Anderson, 2016; RGCSL, 2016; Tropello & DeFazio, 2014). Available literature focuses on defining theory ideals, with a few studies examining how servant leadership is measured, demonstrated in practice, or used in education (Anderson, 2016; Neill & Saunders, 2008; O'Brien, 2011; Tropello & DeFazio, 2014; van Dierendonck, 2011). Most empirical evidence focuses on individual and organizational outcomes of servant leadership; for example, servant leaders tend to have followers with increased satisfaction, commitment, and performance (Hanse, Harlin, Jarebrant, Ulin, & Winkel, 2016; Sturm, 2009; van Dierendonck, 2011; Yancer, 2012). Research is limited on how to develop servant leadership skills. Anderson (2016) and Tropello and DeFazio (2014) note the limited study on servant leadership in baccalaureate nursing education, despite the urgent need for these skills. Examining a case of a baccalaureate nursing program, through the lens of Greenleaf's Servant Leadership Theory, can provide understanding of leadership development into entry-level programs.

**Methods:** Thus, the purpose of this case study was to describe how a baccalaureate nursing program (unit of analysis) incorporates the principles of Greenleaf's Servant Leadership Theory. The study was constructed around two propositions (1) the baccalaureate nursing program intentionally promotes service to others, holistic approach to work, sense of community, and sharing of power in decision making when teaching nursing, including leadership, skills and (2) the baccalaureate nursing program encourages character attributes, such as listening, empathy, and healing, that are consistent with Greenleaf's Servant Leadership Theory. Case study methodology was selected to understand the theory in a contemporary, real-world context (Yin, 2014). This study was appropriate as case study research since experimental control was not possible or needed (Yin, 2014). Multiple sources of data were sought to increase study rigor and allow a comprehensive understanding of the case (Yin, 2014). Additional strategies to ensure study quality and rigor included: triangulation, peer-debriefing, documented audit-trail, detailed study protocol, thick descriptions, pattern matching, and use of theory to structure the study (Houghton, Casey, Shaw, & Murphy, 2013; Yin, 2014). The study was conducted in a private, Christian college in the eastern United States. In this baccalaureate nursing program, there are approximately 200 enrolled students and 10 full-time faculty employed. The study's site clearly prioritizes servant leadership principles; thus, it was determined an ideal case to examine (Yin, 2014). Data sources included (1) review of the nursing program website, student handbook, course catalog, program description, and relevant course syllabi, (2) alumni survey data, and (3) faculty semi-structured interviews. Institutional Review Board approval was obtained before data collection commenced. Fifteen nursing program recent alumni (i.e., 2015 and 2016 graduates) surveys were completed and three faculty completed the semi-structured interviews. Systematic data analysis followed an inductive approach. Data were analyzed and evaluated for empirically-found patterns (themes) and compared to study propositions.

**Results:** Empirically-found themes included: service to others, holistic approach, building community, compassionate care, humility, empowerment, professionalism, and lifelong learning. Pattern matching revealed discovered themes were consistent with study propositions, thus with key principles and characteristics outlined in Greenleaf's Servant Leadership Theory.

**Discussion:** Both study propositions were supported. To avoid bias and present a high-quality study, alternate explanations for the empirically-found themes were also considered (Yin, 2014). Both the Christian paradigm and the Transformational Leadership Theory can be considered rivals in this case study. First, since the nursing program is part of a Christian college, the possibility exists that the emphasis on service, humility, and building community results from the religious affiliation (i.e., the Christian paradigm). Many of the principles encouraged by servant leadership are also promoted by Christian theology (Robinson, 2009). However, as Robinson (2009) asserts, many other religious and nonreligious traditions promote service and other principles of service leadership. Therefore, although the program may attribute its emphasis on servant leadership to faith, the two are not necessarily dependent on one another. Next, as Transformational Leadership Theory premises, such as: leaders inspiring followers, role-modeling expectations, and encouraging intellectual pursuits, match some of the case's empirically-found themes, this theory must also be considered as a rival (van Dierendonck, Stam, Boersma, de Windt, & Alkema, 2014). However, servant leadership differs in its prioritization of meeting others' needs and, thus, best fits with the nursing program. Available literature focus on individual and organizational outcomes of servant leadership; however, studies are limited in providing insight on how to develop these essential skills (Anderson, 2016; Hanse et al., 2016;

Sturm, 2009; Tropello & DeFazio, 2014; van Dierendonck, 2011; Yancer, 2012). This study serves as a foundation and provides insight into the important, complex process of leadership development in entry-level nursing programs (Yin, 2014). As all nurses lead every day, it is vital that leadership skills are introduced early in such programs. Greenleaf's Servant Leadership Theory could be considered a framework in designing curricula to promote leadership skill and in meeting baccalaureate essentials outlined by the American Association of Colleges of Nursing (2008). Servant nurse leaders "speak up, volunteer, advocate," and listen "not because [they] want power or prestige, but because [they] care" (Fahlberg & Toomey, 2016, p. 50). Nurse servant leaders get involved in (1) "initiatives around safety, quality, staffing," (2) "mentoring new nurses or nursing students," and (3) "helping others get their work done" (Fahlberg & Toomey, 2016, p. 50; Savel & Munro, 2017). They not only listen and advocate for patients, families, and coworkers, but also empower those they serve (Fahlberg & Toomey, 2016). In these sentiments, one can see the connection to the study's empirically-found themes. Nurse servant leaders can help realize the servant leadership individual and organizational outcomes (i.e., benefits) emphasized in current literature. Deliberate and comprehensive integration of leadership development, ingrained in the culture of nursing programs, could support successes. Benefits of skilled leadership include improved care coordination, quality, safety, and outcomes. Training entry-level practitioners, in baccalaureate nursing programs, to be skilled leaders can help realization of these benefits.

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## PST2 - Poster Session 2

### The Impact of Supplemented Simulation on Student Competence

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#### Abstract

An emerging nursing education trend is to substitute a portion of traditional clinical learning experiences with simulation as a means to optimize student competency and decision-making skills. Nursing programs encounter constant demands to provide quality education in an increasingly complex healthcare system. Driven by these complexities including cost, limited training facilities, and limited nursing faculty, one College of Nursing implemented a revised adult health nursing clinical curriculum to better prepare nursing students for current and future practice.

The best method of incorporating simulation into nursing curricula has yet to be determined. Previous studies found no difference in student performance (Meyer et al., 2011; Schlairet & Fenster, 2012, Hansen & Bratt, 2017), clinical judgment (Meyer et al., 2011), critical thinking (Schlairet & Fenster, 2012) or self-perception of clinical decision making (Woda, Gruenke, Alt-Gehrman, & Hansen, 2016) based on the sequence or timing of simulations during the semester. Results from the National Council of State Boards of Nursing (NCSBN) National Simulation Study support using high-quality simulation experiences to substitute up to 50% of traditional clinical hours experiences (Hayden, Smiley, Alexander, Kardong-Edgren, & Jeffries, 2014) but gives no guidance on the impact of simulation used for supplementation learning.

Substituting traditional clinical learning experiences with simulation means that students use simulation to meet their required clinical hours. This can include low, mid, or high fidelity simulations. In contrast, supplemented simulation provides additional student simulation learning time with no change to the hours met with traditional clinical experiences. In a supplemented model, time caring for human patients in the healthcare setting is not decreased but instead, additional learning opportunities are provided using simulation. Prior to this study, little was known about the impact of supplementing traditional clinical learning experiences with simulation versus substituting one for the other, on learner outcomes, and ultimately patient care.

The purpose of this study was to explore the differences in clinical competence between two different cohorts of senior baccalaureate nursing students in their final semester of a traditional pre-licensure program in the United States (n=71). A quasi-experimental design was used to compare students who had substituted their traditional hospital-based medical-surgical clinical experiences with simulation (Cohort 1, n=35) with a group of students who had robust supplementation of simulation in addition to their traditional adult health (medical-surgical nursing) clinical experiences (Cohort 2, n=36).

Both cohorts were evaluated in a simulation at the completion of their pre-licensure program. To evaluate participants on behaviors that demonstrate clinical competence, a modified version of the *Creighton Competency Evaluation Instrument* (CCEI) was used (Hayden, Keegan, Kardong-Edgren, and Smiley, 2014). The CCEI measures four areas of competency: assessment, communication, clinical judgment, and patient safety. Participants are evaluated on whether they consistently perform an important nursing behavior, and given a numerical score based on the CCEI tool. Cronbach's alpha levels for this tool have been reported to range from .97-.98 (Hayden, Keegan, et al., 2014); for this study sample the CCEI  $\alpha = .78$ .

Demographic characteristics between the two cohorts were non-significant except for employment in healthcare. Cohort 2 had statistically significantly more participants who were employed as a certified nursing assistant or nurse intern/extern ( $p < .01$ ). However, when controlling for work experience, it was not a predictor of clinical competence. Cohort 2 had significantly higher CCEI total scale scores when compared to Cohort 1 ( $p < .01$ ). Further analysis of the subscale scores of the CCEI revealed that only the assessment subscale was significantly higher among Cohort 2 participants ( $p < .01$ ).

Cohort 2 also had higher mean scores than Cohort 1 on the remaining subscales (communication, clinical judgement, and patient safety). Under the subscale of communication participants were rated on their ability to gather assessment data prior to calling the health care provider. Once contact was made with the provider, the participant needed to relay pertinent information using SBAR (situation, background, assessment, and recommendation). Assessing clinical judgement tested the participants' ability to interpret subjective and objective data and prioritize the abnormal assessment findings. In this simulation, the priority focus was on the respiratory system, requiring the participant to provide the appropriate nursing interventions (elevate the head of the bed, and apply oxygen etc.). The area of patient safety tested safe medication administration. Participants in Cohort 2 identified the patient, utilized the 5 rights of medication administration, managed the equipment, and performed the procedure correctly more often than Cohort 1.

Although more research is needed in this area, the findings demonstrated that when simulation was used as a supplement to traditional clinical experiences, participants had higher assessment scores.

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## PST2 - Poster Session 2

### Informing Andragogy: Voices of Graduates From Accelerated, Second-Degree Programs in Nursing Concerning Faculty Teaching Practices

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#### Abstract

Contemporary higher education and healthcare landscapes support the need to investigate evidence based teaching strategies that prompt success among accelerated, second-degree prelicensure student nurses. The current socio-political-economic context impacting nursing curriculum is comprised of legislative action in the form of the Patient Protection and Affordable Care Act (PPACA) (2010), recommendations from the Consensus Report generated by the Robert Wood Johnson Foundation Initiative on the Future of Nursing at the Institute of Medicine (IOM, 2011), and the pervasive culture of assessment of student learning outcomes in higher education linked to accreditation standards. Nurse educators preparing students to deliver person-centered care to patients, families, communities and populations must enhance learning environments to meet the needs of veteran learners (Finch, 2012) who will comprise the future nursing workforce. Outcomes of student learning cannot be improved if nurse educators fail to examine the processes of education employed to develop learners (Banta, Jones & Black, 2009). Accelerated, second degree prelicensure students represent seasoned learners who enter schools of nursing for a myriad of reasons, all ultimately aimed at earning a bachelor's degree to qualify them for writing the licensure examination. This study was designed to examine this cohorts' perceptions of the andragogical practices employed by faculty that prepared students best to begin practice as entry-level professional nurses. The study further sought to identify the ways in which andragogical practices used by faculty incorporated the students' prior learning and life experiences as the student accrued knowledge of the art and science of nursing. Through interviews with 24 participants six themes were derived from the data. They included: (a) range of experience and perception, (b) the context of knowledge, (c) checking in versus checking out, (d) it's not just about strategy: The influence of passion and connection, (e) practice in action, and (f) program demands as preparation for career demands. Through analysis of these findings, it was learned that although faculty implementation of teaching strategies does influence learning and the ability of the graduate to engage in clinical reasoning once working as a professional nurse, elements external to strategy also influence the experience of learning. Two significant findings of this study were that faculty attributes of passion and expert knowledge hold prime importance for a student and that student exposure to program plans of study designs of accelerated, second-degree programs facilitate transition to the professional practice role. This research adds to the existing body of literature related to the education of accelerated, second-degree prelicensure baccalaureate students. Findings of this study can be used to inform faculty about best practices for teaching this particular cohort of students who seek nursing as an alternate career and assist with construction of innovative curricular designs to meet the needs of this unique group.

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## PST2 - Poster Session 2

### Relationship Between Compassion Fatigue and Health Promotion Behavior Practicing in Long-Term Care

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#### Abstract

**Objective:** To examine the relationship between compassion fatigue and health promotion behaviors in nursing personnel practicing in a long term care setting.

**Background:** In long term care settings, nurses now face the unique challenges and stressors of caring for clients with higher acuity than previous years. Compassion fatigue is recognized as a negative outcome of caring for individuals and is frequently experienced by nursing personnel. Moderate to high levels of compassion fatigue have been identified in acute care settings (ACS) with far less research conducted in long term care centers.

- Compassion fatigue is composed of traumatic events, burnout and job-related stress;
- it co-exists with burnout which affects individuals in caregiving roles (Joinson, 1992).
- Secondary traumatic stress and burnout are other terms relative to compassion fatigue.
- Exhaustion, frustration, anger and depression are common with burnout and secondary traumatic stress is a negative feeling directed by fear and work-related stress (Stamm, 2002). Stamm and Figley (2010) suggest that secondary traumatic stress and burnout together contribute to an increased risk of compassion fatigue. When compassion fatigue manifests, the physical and mental well-being of nurses is compromised (Sheppard, 2014).

**Method and Design:** A non-experimental, descriptive correlational design using a convenience sample of 61 subjects consisting of registered nurses, licensed practical nurses and certified nursing assistants practicing at Parker at McCarrick in Somerset, New Jersey participated in this study. Subjects completed a demographic data sheet, the Health Promoting Lifestyle Profile II (HPLP-II), and the Professional Quality of Life Scale (ProQOL).

**Findings:** There was no relationship between compassion fatigue and the total health promotion score as well as any of HPLP II subscales. However, compassion satisfaction revealed a moderate to high relationship to total health promotion ( $r = .47, p < .001$ ), as well as spiritual growth ( $r = .45, p < .001$ ), and interpersonal relations ( $r = .56, p < .001$ ).

**Conclusion:** Further research needs to be conducted to determine how factors such as consistency of patient care, staff relationships, and work environment influence or prohibit the development of compassion fatigue in long term care settings. Additional research to explore differences in compassion fatigue based on patient care settings is warranted. Programs should be developed and evaluated to measure interventions to sustain or support compassion satisfaction in work settings for nursing personnel practicing in the long term care settings.

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## PST2 - Poster Session 2

### Authentic Learning in Healthcare Education: A Systemic Review

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#### Abstract

**Background:** Clinical environments are more complex, rapidly changing and increase in the number of patients with advanced diseases. A higher level of clinical performance competencies such as clinical reasoning, problem solving in healthcare provider is demanded. To satisfy these needs, educational learning methods were changed to bridge the knowledge to practice gap. That is, scientific curricula based on authentic environment were needed.

**Methods:** This is a systematic review to examine the effects of learning outcome on authentic learning method. This study was performed according to the systematic reviews guideline. A literature search was conducted in PubMed, Embase, MEDLINE complete, PsycINFO, CINAHL (Cumulative Index for Nursing Allied Health Literature) with Full Text, Korean database including the KoreaMed databases up to June 2016. The searching keywords were “nur\*,” “medical,” “dentist,” “pharmacist,” “students,” “healthcare personnel,” “authentic,” and “learning,” with single search terms or in combination with Boolean and wildcard. For the other eligible studies, we were identified by retrieving the cited reference lists from selected studies and major Korean academic journals, including the Asian Nursing Research, Journal of the Korean Academy of Nursing, Korean Society of Adult Nursing, the Journal of Korean Academic Society of Nursing Education. The inclusion criteria for this study were as follows: (a) research papers documenting randomized controlled trials (RCT) or control group designs targeting healthcare providers such as nurses, doctors, dentists, and students; (b) research that used authentic learning methods (i.e., no lectures) for intervention. (c) the studies were published in English or Korean language. (d) target population was an undergraduate students. We excluded a study using languages other than English and Korean. In addition, grey literature, not peer-reviewed paper such as academic report and dissertation was also excluded. Selecting of studies were conducted based on inclusion and exclusion criteria. Two independent authors who review the titles and abstracts and were screened for selected data, and researchers reviewed the full-text of original articles. Discrepancies or conflicts between researchers were resolved by discussion until reaching agreement.

**Results:** Following the primary search, 1,259 studies were found by reviewing searching the databases; 878 studies remained after redundant literature was eliminated. Upon reviewing various titles and abstracts, 766 studies were excluded. The 112 studies that satisfied each of the selection standards were identified. The 99 studies excluded as follows; 64 studies were non RCT, 21 studies were master or doctoral thesis, 6 studies non authentic learning, and 8 studies non undergraduate students. The thirteen studies selected for systemic review. Three studies were nursing education, eight were conducted within the medical education, one was nutrition and one study was conducted psychology students. Two studies were published in 2006; three of them were published in each of 2009, 2014, 2017, two studies were published 2011, two of them were 2012, two were 2015, and two articles were published 2016. Of the thirteen studies selected studies, three studies used to problem-based learning (PBL), two were used virtual simulation authentic learning method, two used DVD and standardized patient (SP), two used e-learning, one used mobile learning, one used authentic assess pedagogy, one used three-dimensional (3D) digital animation and one article used to case-based learning. Regarding the research design employed by the studies, five used randomized controlled trials, while eight used a quasi-experimental design as control group. Final selected studies represented that authentic learning undergraduate students fostered performance skills (46%), knowledge (38%), satisfaction, comprehensive competency, problem solving, communication (15%) and other competency (e.g., learning motivation, critical thinking, critical judgment). In case of PBL, web-based or video assisted PBL was more effective authentic learning effect than traditional PBL.

**Conclusion:** This research represented that authentic teaching and learning methods were generally effective at enhancing learners' cognitive, psychomotor, affective domain of competency. Especially, technology combined such as a web-based or e-learning eliminated academic boundary for education. It provided more collaborative and constructive learning experiences for learners. As a result, authentic leaning contributed positive effect to interprofessional education for healthcare provider.

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## PST2 - Poster Session 2

### ESL versus Non-ESL Nursing Students' Perceptions of Staff Nurse Incivility

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#### Abstract

**BACKGROUND:** Incivility is a problem that exists in nursing education and practice and one that has serious repercussions. Clark and Springer's (2010) defined incivility as "rude or disruptive behaviors, which often result in physiological or psychological distress for people involved, and if left unaddressed, may progress to a threatening situation" (p. 320). Incivility is known by other terms such as bullying, mobbing, lateral or horizontal violence, and relational aggression hostility (Croft & Cash, 2012; Decker & Shellenbarger, 2012; Dellasega, 2009; Goldberg, Beitz, Wieland, & Levine, 2013). The relationship that student nurses develop with staff nurses have a significant impact on their learning and sense of belonging. Incivility toward nursing students by staff nurses has been reported as contributing to students' negative experiences in the clinical environment and the disruption of the teaching-learning environment (Anthony et al., 2014; Clark & Springer, 2007; Marchiondo, Marchiondo, & Lasiter, 2009). However, these studies do not include students who are English as Second Language (ESL). ESL students may struggle to meet the challenges presented their nursing education program due to differences in their culture and language. As the numbers of ESL students enrolled in nursing education program increase nationally, it is important to study whether culture and language have an impact on their perceptions of incivility. The purpose of the study was to determine whether there was a difference between English as Second Language (ESL) and non-ESL nursing students' perceptions of staff nurse incivility.

**METHOD:** A three part survey was distributed to nursing students who were members of the National Student Nurses Association. A final sample of 975 survey cases was analyzed using SPSS version 23.0 software.

**RESULTS:** Results demonstrated exclusionary behaviors and total incivility scores were statistically different between ESL and non-ESL students. However, the effect size of both findings were extremely low (little practical difference). A significant multivariate result was found in the four scales between the two types of ESL students. Univariate analysis found a significant difference on vertical collectivism which indicates that ESL students had a higher mean and identified themselves more with a vertical collectivism orientation than non-ESL students. However, the effect size of the significant finding was extremely low. Time in program, age, and gender were found best predictors of perceptions of incivility.

**CONCLUSION:** This study attempted to explore ESL versus non-ESL nursing students' perceptions of staff nurse incivility. There was no practical difference in ESL and non-ESL student's perceptions of staff nurse incivility. However, time in program, age, and gender were characteristics that may help predict which students are more likely to encounter and/or perceive staff nurse incivility. The results of this study clearly point out that although incivility in the clinical setting is an occurrence, the students in this study did not perceive staff nurse incivility to the extent as previously reported in the literature.

Key words: incivility, ESL nursing student, perception

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## PST2 - Poster Session 2

### Development of a Nurse Preceptor Program

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#### Abstract

Nursing clinical instruction and evaluation is vital to developing registered nurses (RN) into practice. Nurse preceptors play an important role in pre-licensure nursing programs, residency programs, transition to practice (TTP) programs, and with newly hired veteran nurses on the unit they will work (O'Connor, 2015). A nurse preceptor "guides students to apply theory to practice and function as a role model in a final clinical immersion course" (Sharpnack, Moon, & Waite, 2014, p.254).

Schools of nursing depend on preceptors to assist in the education and training of nursing students. Yet faculty often struggle with placing students in various healthcare settings due to the lack of trained and available preceptors. Developing and educating preceptors is a vital part of the process. There is a need to build a preceptor program at healthcare institutions.

This article attempts to (1) identify the essential components of a preceptor program by reviewing the literature and (2) suggest an evidence-based preceptor program of value. A literature review was conducted on the role of the preceptor, preceptor training, and preceptor programs in order to make evidence-based recommendations to a large health care facility that was lacking any type of formal process for selection, training, education, and development of nurse preceptors. Subsequent research on outcomes and lessons learned once preceptor program is implemented is suggested and planned.

**Benefits of preceptors** - Nurse preceptors are jewels to both undergraduate faculty and healthcare institutions. They are the ones who train the nursing students and new nurses. The preceptor aids in the "development of professional identity and socialization into the discipline" (Trede, Sutton, & Bernoth, 2016, p.271). Preceptors guide safe practice, accomplish connectedness, create positive learning experiences and relationships, deliver feedback, and "consult with supportive colleagues for advice and guidance" (Trede et al., 2016, p.271). The one-to-one relationship between an experienced nurse and nursing student (or novice nurse) assist the transition into the workforce (Valizadeh, Borimnejad, Rahmani, Gholizadeh, & Shahbazi, 2016). An effective preceptor is not only instrumental in molding the new nurse in the institutions mission and vision but can lead a new nurse to higher levels of job satisfaction, work effectiveness, better quality of care, and patient outcomes (Watkins, Hart, & Moreno, 2016). They can improve the retention rate of new nurses "anywhere from 15% to 37%" (Watkins et al., 2016, p.37).

**Preceptor challenges** - Preceptors experience many challenges when an effective nurse preceptor program does not exist. Some of those challenges include "workload pressures, insufficient time, restricted communication with other preceptors, lack of structure, lack of clear protocols, lack of appreciation, poor preparation for the role, and insufficient formalized training" (Trede et al., 2015, p. 272). Workplace structure, workplace cultures, managers, peers, and other healthcare professionals influence preceptors. The workplace-learning environment shapes the supervision practices (Valizadeh et al., 2016).

**Benefits of preceptor program** - A preceptor program creates a supportive workplace, provides role clarity with clear expectations of the preceptor role and responsibilities (Trede et al., 2016). Preceptor education assists in the development of critical thinking of new graduate nurses (Schuelke & Barnason, 2017). Having a preceptor program can create a workplace environment conducive to learning and success. It can provide improved "sufficient work hours, collaboration, reciprocity, policy and organizational support, critical and constructive feedback" (Trede et al., 2016, p.272). Additionally, academic partnerships "can be effective in reducing healthcare costs, improving patient outcomes, and improving quality and safety, in patient care" (Sharpnack et al., 2014, p.255). The benefits of such a program are numerous. The rewards far outweigh the challenges of developing nurse preceptors and sustaining them.

**Need for preceptor program** - With competition from so many nursing programs seeking clinical sites and numerous nurses entering the healthcare industry, it becomes imperative to have a nurse preceptor program in place. There is much in the published literature and books on preceptor's roles and responsibilities. Fewer references are available in the literature on how to start a preceptor program and program components.

Following a presentation to all key stakeholders, it is imperative to draft a policy to detail a clear and consistent process of preceptor identification, preceptor selection, role clarification, and role expectations to reduce the stress and confusion amongst preceptors.

**Preceptor selection** - The literature suggests nurse educators and nurse managers survey and identify potential preceptors based on Commission on Collegiate Nursing Education (CCNE)(2015) standards: BSN degree or higher, good interpersonal skills, culturally sensitive, "clinically competent, enthusiasm for teaching, provides guidance for problem-solving and clinical judgment, gives positive and negative feedback in a constructive manner, empathetic towards learners, promotes autonomy when appropriate, passionate about nursing" (Mohide et al., 2012, p.25). Additional criteria include full-time employment at the time of recruitment, minimum three years of work experience, and intermediate level in clinical competency (Kang, Chiu, Lin, & Chang, 2016). The highest rating RN's are then selected to be preceptors (a five point rating scale with 1 being the lowest and 5 being the highest). The nurse educator then observes the nurse demonstrating a complete head-to-toe assessment. The preceptor completes a self-assessment like the Nyberg Caring Assessment Scale (1990) (Cotter & Dienemann, 2016). The manager then confirms that the candidate has a positive annual performance appraisal. The preceptor name, results of head-to-toe assessment, and self-assessment score aid the chief nurse administrator in the final selection.

**Curriculum format, content and interval** - Assessing the needs of the preceptors and identifying the topics that should be included in the curriculum and the preferred form of instruction, is ideal and guarantee success of the preceptors in their role. Foy, Carlson, and White (2013) created a survey tool entitled "RN Preceptor Learning Needs Assessment" which is useful to assess what topics, format, and when in the educational process the preceptor desires to learn the educational content. Following the survey results, the remaining content is delivered at intervals and in formats tailored to the results of the learning needs assessment specific to the institution (Cotter & Dienemann, 2016). For those institutions that prefer a consistent preceptor program, the following are recommended.

**Format** - The educational format for training preceptors initially starts with a live educational session 4-6 hours in duration. However, having preceptors come-in on a scheduled day off or getting off the unit creates challenges of having preceptors attend live educational training sessions

(Sharpnack et al., 2014). Therefore, blended learning sessions with the use of technology would be more convenient and are recommended for follow-up classes (Cotter & Dienemann, 2016; Schuelke & Barnason, 2017). After the initial 4-6 hour introduction session, 5 online modules would be required before being assigned a preceptee. Providing compensation for this time of learning improves outcome (Sharpnack et al., 2014). Content - Top ranked curriculum topics identified by preceptors include feedback, roles and responsibilities, adult learning styles and principles, prioritizing, time management, evaluation, communication and conflict, teamwork, patient centered care, culture of safety, evidence-based practice (EBP), clinical resource, and critical thinking (Foy et al., 2013; Sharpnack et al., 2014; Windey, Guthrie, Sullo, Lawrence, Weeks, & Chapa, 2015; Wu, Enskar, Heng, Pua, & Wang, 2016). The introductory 4-6 hour live session includes an overview of nursing theories, preceptor roles & responsibilities, prioritization/time-management, and preceptee evaluation. The follow-up 5-online modules include: Module 1) communication, conflict management, and teamwork. Module 2) culture of safety, patient and family centered care, and quality improvement/assessment. Module 3) Evidence based practice (EBP). Module 4) clinical resources, policies, information technology. Module 5) clinical judgment, clinical reasoning, and critical thinking.

Interval - New preceptors should be allowed to enroll in the class when they feel ready and given 12 months to complete all requirements (Cotter & Dienemann, 2016; Foy et al., 2013). Once the coursework is complete, the preceptor is ready to be assigned. Established preceptors, will be "grandfathered-in" and given 12-months to complete requirements while continuing to precept current students and/or nurses. In addition, the establishment and adherence to quarterly discussion sessions with preceptor and faculty to reflect on learning and application are recommended (Cotter & Dienemann, 2016). Furthermore, yearly evaluations of preceptors and identification of new potential preceptors by the nurse managers, educators, faculty and nursing administration benefit the program along with evaluation of program outcomes.

Rewards to preceptors - Rewards to preceptors are vital to the success of the program. Lack of external incentives and recognition can lead to disappointment, dissatisfaction, and attrition among preceptors (Valizadeh et al., 2016). Financial or education incentives for preceptors can exist in the form of tuition reimbursement, continuing education hours, merit-based bonus, or clinical promotion based on annual performance appraisal (Cotter & Dienemann, 2016; Jackson, 2001; Sharpnack et al., 2014; Valizadeh et al., 2016). In addition, preceptors would benefit from personal roster preferences in scheduling taken into account, support from nurses working on the floor, not placed as charge, and a reduced workload while training, for example not to have the same patient assignment as non-preceptors (Valizadeh et al., 2016). It is imperative for nurse managers and nurse educators to compensate time or support release time for educational needs, provide access to free education resources, and provide further development opportunities (Valizadeh et al., 2016).

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## PST2 - Poster Session 2

### How to Best Educate Nursing Adjunct Clinical Faculty

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#### Abstract

Part-time faculty grew 72.5 percent since 2002, more than 58 percent of baccalaureate and higher degree programs reported hiring faculty as their primary plan to fill needed full-time positions due to the nurse faculty shortage and increasing student enrollments (American Association of Colleges of Nursing [AACN], 2012a; AACN, 2017; NLN, 2010). Nursing Adjunct Clinical Faculty (NACF) are expert clinicians, but may lack formal education to their educator role (Lewallen, 2002). Knowing how to prepare NACF for clinical teaching is necessary to ensure students are prepared to provide safe quality care as students and as novice nurses. Helping NACF assimilate to their educator role will benefit the students they teach and the nursing programs themselves.

The need for seamless academic progression from nursing school into practice is imperative. Nursing programs need a knowledge base from which to develop learning and mentoring experiences for their NACF. They will provide quality learning experiences for their students if NACF have been effectively oriented to their role (Ard & Valiga, 2009). Healthcare delivery and the nursing profession are changing dramatically due to consumer demand for cost-effective quality care, and an evidence-grounded profession (AACN, 2012b). The demand for registered nurses is expected to grow by 40 percent between 2000 and 2020 and if the current trends continue there will be a 29 percent shortage by 2020 (King, 2002). New nurses will need to be better prepared after graduation for higher acuity patients and higher workloads due to the nursing shortage.

Surprisingly there is an absence of research on NACF, specifically with how best to educate them to their teaching role. The researcher of this study interviewed twelve NACF with no less than one semester and no more than four semesters teaching experience. The researcher asked NACF how they best learn or what would be helpful to them to assimilate into their new educator role. van Manen's hermeneutic phenomenological design approach was used. The goal was to explore or uncover descriptions of a particular experience and the meanings, the phenomenon or human experience of being a novice NACF.

Four themes (frustration, training, mentorship and desire to teach) and eight subthemes (unknown expectations, role struggle, shadowing, grading, feedback, professional resource, lifelong learning and educate future nurses) were identified after the researcher analyzed the data. The constant comparison method was used and the data was broken down into segments and expressions were grouped and labeled. The most predominant theme of frustration was experienced by 8 of the 12 participants related to their adjunct clinical faculty experience. Unknown expectations and role struggle were subthemes of frustration. Unknown expectations included how to grade student assignments; believing students were more prepared for clinical than they were; last minute clinical site changes; no formal orientation to their clinical faculty role; and receiving no direction throughout their clinical rotation by a course coordinator. NACF struggled in their teaching role because they wanted to help students learn but felt they weren't given the tools they needed to be successful in their role. Nine out of 12 participants overwhelmingly discussed their need to know how to conduct a clinical. Ten participants reported that they are visual learners and would like to have had hands on clinical training to ensure their success as a clinical educator. Seven out of 12 participants shared that shadowing another clinical faculty prior to the start of their clinical would have been the most helpful in learning how to conduct a clinical; including what to do with the students in the clinical area; and how to conduct a pre and post conference. Eight out of 12 participants agreed that receiving help with grading clinical write-ups would have helped them be proficient with grading.

In addition to shadowing clinical instructors and getting help with grading, participants wanted feedback. This feedback may be given through mentorship. One participant described a mentoring relationship but all other participants did not describe a desire to have a mentoring relationship. They wanted someone to go to if they had questions "a point of contact" and someone to check on them at the beginning of their clinical rotation, not throughout their rotation, until they knew what their expectations were as clinical faculty. Participants wanted feedback throughout their teaching assignment from either clinical faculty or course coordinators. Six out of 12 participants accepted an adjunct clinical faculty position because they believed it would be interesting and an educational role for them. Lifelong learning and wanting to educate future nurse were subthemes of Desire to Teach.

The contributions of the researcher's study to nursing education included: Students may not be prepared upon graduation to provide quality and safe care; Adjunct clinical faculty were frustrated in their teaching role due to the lack of preparation from their nursing school employers; and adjunct faculty shared what would be helpful to them for their success in their teaching role. The contribution to professional practice included: Prepared clinical faculty are needed to help students make connections from education to practice; According to the participants responses to questions the quality of students' clinical rotations may be absent; New nurses will be better prepared; and employers and patients will benefit.

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## PST2 - Poster Session 2

### SNAPS+: Peer-to-Peer and Academic Support in Developing Clinical Skills

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#### Abstract

**Background:** Peer-to-peer teaching is seen as a learning partnership between nursing students. In many respects it promotes a shift in responsibility and commitment of learning squarely on the students (White, Rowland, Pesis-Katz, 2012). Moreover, adopting a peer learning approach offers peer tutors a better appreciation of the difficulties experienced by their fellow students more so than their teachers and are therefore better placed to offer more succinct and tailored learning opportunities (Ravanipour, Bahreini, Ravanipour, 2015; Carey, Kent, Latour, 2016). Where these learning opportunities take place is often down to the discretion of peer tutors and as to what capacity their role takes in supporting other students. For example, a number of studies and systematic reviews have identified that the clinical environment is predominately where learning and support takes place with senior nursing students mentoring and buddying more junior colleagues (Palsson, Martensson, Swenne, et al., 2017; Stenberg, Carlson, 2015; Stone, Cooper, Cant, 2013; Owen, Wars-Smith, 2014).

The outcomes associated with peer learning are well recognised – enhanced critical thinking, an enriched sense of self-determination, empowered learning, and improved collaboration (Palsson, Martensson, Swenne, et al., 2017; Stone, Cooper, Cant, 2013). However, what is less evident is the relationship between peer tutors and nursing academic staff in supporting nursing student learning especially in teaching the clinical skills component of the bachelor of nursing degree.

**Clinical Skills Labs:** Sessions within the clinical skills lab were largely conducted according to student need, therefore the students were the drivers as to what it was they wanted to learn. These were conducted once a week for two hours per week throughout the thirteen week semester period. For the first years this was revisiting and enhancing their skills around taking vital signs observations such as blood pressure and pulse. The second years were concerned with injection technique and the setting up of intravenous fluid infusions and the constitution of drugs such as antibiotics. The role of the student peer teachers was to support learning by demonstrating the skill to the nursing students at a basic task level. The role of the nursing academic was to reinforce the skill at a more advanced level for example medico-legal aspects of the skill being undertaken, the application of physical assessment skills and the nuances of practice.

**Aim:** The aim of the project is to evaluate the effectiveness of a collaborative approach to student learning using peer-to-peer teaching in conjunction a nursing academic within the clinical skills labs.

**Method:** Nursing students currently enrolled in an undergraduate bachelor of nursing programme (n=390) at a regional university campus were invited to attend peer-to-peer teaching of clinical skills over a one semester period. Of this sample a total of 41 first (n=14) and second (n=27) year nursing students attend these sessions. At completion of the labs the attending students were then asked to complete a nine item Likert scale (strongly agree to strongly disagree) and four open ended questions of their experience of peer-to-peer teaching. The Likert scale posed statements such as “the peer-to-peer skills sessions have boosted my confidence in performing nursing skills; having an academic present with the peer tutors is good in helping me to understand and apply my nursing skills; I feel encouraged to actively participate within the peer-to-peer skills sessions”. These were offset with some negative responses so as not to cast the SNAPS programme as a complete success. These negative statements include: “I feel the student peers do not have enough clinical experience to be effective; the peer-to-peer learning should be just that peer-to-peer, a nursing academic should not be present. Descriptive statistics were used to evaluate and analyse the student responses. In line with institutional policy as this was an evaluation of teaching practice ethics approval was waived for this study.

**Results:** There were two main drivers students attended the SNAPS sessions: for the first years it was because they had assessment due on their ability to undertake and interpret vital signs observation and for the second years it was because they were about to go out into clinical placement. That said the students were in favour of the peer-to-peer learning as a whole with 80% (n=33) strongly agreeing with the statement peer-to-peer learning boost my confidence and 83% (n=34) strongly agreeing that they felt encouraged to participate. Responses associated with the academic being present were also very favourable with 90% (n=37) feeling that having an academic present help them to understand and apply the skills more effectively. Using deductive content analysis three themes were identified from the open-ended questions: feeling grateful, feeling confident and identified skills deficit.

**Conclusion:** Peer-to-peer learning has been shown to improve confidence in those that attend. This project certainly demonstrated that with the added advantage that students’ felt able to be more inclusive in. Having an academic present also boosted confidence inasmuch that the peer tutors also had opportunities to learn from an experienced registered nurse as well as those students who attended to practice their skills.

**Limitations:** It is readily accepted that the sample size was small (11%) given the total cohort number. However, we contend that as the SNAPS sessions were voluntary we were pleased with the number that attended. We were also disappointed that no third year nursing student attended and we put this down to the fact that they were not on clinical placement during this semester and therefore the necessity of practicing or enhancing their skills was not a priority. However, because of the popularity of the SNAPS sessions we are looking at running in the next academic semester so as to capture all three years simply because they will all be going out into clinical placement at some point during this time.

**Implications for Nursing Education:** It is evident from this project that peer-to-peer learning supports teaching of the clinical skills to a certain specified level; this level is often focused on skills mastery at an elementary level. The inclusion of a nursing academic supports application and integration of these skills by using clinical experience and constructive alignment strategies that supports deeper learning. The benefits to this approach ensure that the student feels comfortable and feels less pressure to perform in a safe environment. However, while the benefits are clear, this approach is resource intensive inasmuch that it requires an academic to present during specified times. In addition the skills sessions have to revolve around the peer tutors own clinical placement schedule as well as attending to their own study.

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## PST2 - Poster Session 2

### Negative Attitude and Anxiety Toward Aging in Students From a Nursing School in Saltillo, Mexico

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#### Abstract

**Justification:** Nursing is one of the professions that have a greater contact with patients, therefore, measuring the attitudes of students and nursing professionals is important, since with these is the deal that will be given to the patient, having negative repercussions such as: Aggravate their illness, psychological traumas and in case of the positive effects would be improvement in shorter time, effectiveness of treatments, good emotional and psychological development of the patient, depending on how expressed to said.

**Purpose:** To identify negative attitudes and anxiety levels towards aging and their relationship with socio-demographic variables and co-existence with the elderly, in undergraduate students at the Public Nursing School in Mexico's northeast.

**Methodology:** Correlational-Descriptive Design with proportional fixing by gender of 150 undergraduate students, in a Public Nursing School in Mexico's northeast. This sample had an associated reliability of 95% and an error of 5%, based on the calculation of infinite populations. The instruments that were applied were: socio-demographic format, co-existence with the elderly format and questionnaire about attitudes towards aging, and Anxiety Scale towards aging; which shows an acceptable reliability (Cronbach Alpha= 0.845 and 0.794).

**Results:** Through statistical tests it was found that Attitudes towards aging had a mean of 40.2 with an standard deviation (SD) of 8.89, for the variable anxiety had a mean of 39 and a SD of 8.29 (both fluctuate between the range of 21 and 63), where, to a higher punctuation, greater presence of negative attitudes and higher anxiety level. In this research, a medium positive correlation was found between attitudes towards aging and anxiety towards aging ( $r=0.535$ ;  $p<0.05$ ).

**Conclusions:** Based on the results found, it can be concluded that negative attitudes and anxiety levels towards aging are present in nursing students, and that such results need to be considered when making Study Plans.

**Target audience:** The target audiences of this presentation are: nursing researchers and students, teacher nurses interested in the improvement of the aging perception and the co-relation with the socio-demographic variables.

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## PST2 - Poster Session 2

### Examination of Graduate Faculty Online Teaching Needs to Create a Center for Scholarship in Teaching/Learning

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#### Abstract

The expansion of online web enhanced programs within the last decade requires faculty to develop needed skills not only in teaching strategies but also the use of technology and the principles of the adult learner as it relates to a web enhanced environment. According to the 2013 Sloan Consortium (<http://sloanconsortium.org/publications/survey/grade-change-2013>) over 7 million higher education students are enrolled in at least one online course. This number is expected to grow because students find the flexibility a key determinant for enrollment.

Converting a face to face course to an online web enhanced format requires an understanding of adult learning theory, principles of effective web based instruction and an understanding of generational differences in students (Chickering and Gamson, 1987; Hoffmann, Dudjak, 2012). Our university, which is a major research intensive university, embarked in 2009 to offer graduate nursing programs both "onsite" and "online." Over the next several years we expanded our "online" program offerings to include two MSN areas of concentration, six different nurse practitioner concentration for DNP completion, two post masters CNS options, health system executive leadership DNP, CRNA and just recently an RN-MSN option program. This growth in online program offerings emphasized the importance of scholarship in teaching and learning (Clinefelter, 2012). Thus in 2017 the School of Nursing created a Center for Scholarship of Teaching and Learning (CSToL) to improve student learning through scholarly inquiry. The mission of the CSToL aims to improve student learning at all levels, including community learners through scholarly inquiry. This begins by establishing a school-wide baseline of current practices, informing faculty of effective practices documented in the literature, and encouraging self-reflection on teaching approaches.

In order to grasp a better understanding of the faculty needs related to online web enhanced instruction it was imperative to survey all faculty who are currently or will be responsible for developing, and delivering a web enhanced course. According to Elliott, Rhoades, Jackson, Kearney, and Mandernach (2015), flexibility and diversity in faculty development programs is essential in order to accommodate the disparate needs of faculty. They recommend a needs assessment to help guide faculty development and support online teaching.

The following two research questions guided the needs assessment: 1) What are the current online teaching strategies utilized by graduate nursing faculty to deliver online web enhanced courses at the SoN and 2) What are future faculty development needs related to online web-enhanced instruction? A review of the literature related to faculty needs, teaching learning strategies and technology utilized in web enhanced courses was obtained through MedLine, OVID, and Pub Med. Since no specific tool included the breadth and depth of the current faculty needs an investigator developed survey was created. Face validity was obtained from three faculty who have taught web enhanced courses for greater than eight years and two instructional designers at the University's Center for Teaching and Learning. The instructional designers are directly involved in online web enhanced course development and have extensive research in adult learning theory and teaching strategies. The final survey included four demographic questions and 15 questions related to teaching/learning in a web enhanced format, use of technology, online teaching tools, hybrid instruction methodology, and other aspects of faculty development such as e-advicing, online office hours and future faculty development initiatives. The survey was administered via RedCap to 27 PhD or DNP graduate faculty in spring 2017 (Harris, Taylor, Thielke, Payne, Gonzales, & Conde, 2009). This presentation will discuss the results obtained and implications for practice. Analyses of data will inform a white paper to elucidate current practices in online education method currently implemented in the School and establish a roadmap for the future including future faculty development forums, best practices in online instruction and scholarly inquiry.

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## PST2 - Poster Session 2

### Health Policy Institute (HPI): Capitol Hill Experiential Learning to Gain Political Astuteness

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#### Abstract

**Introduction and Background:** It is imperative that nursing graduates understand, and can collaboratively advocate for health policy that benefits patients, families, and communities. Evidence suggests a historical disparity between health care providers' attitudes and experiences with health policy advocacy. Physicians' perceptions of the importance of their role in political advocacy indicates that though 91.6% specified that political involvement was important, only 25% were politically active (Gruen, Campbell, & Blumenthal, 2006). Among nutritionists only seven percent reported being highly active in the policymaking process, while 44% declared no involvement (Boardley, Fox, & Robinson, 1999).

Nurses also exhibited poor enthusiasm and understanding regarding the political health policymaking process (Boswell, Cannon, & Miller, 2005). Salvador's (2010) study of 347 Registered Nurses indicated that while 73.5% had participated in up to two health policy-related activities, 26.5% reported no participation at all. More importantly, 68.8% reported receiving no health policy education. Of those Registered Nurses who had received health policy education, 66.7% rated it as poor (Salvador, 2010). Primomo's (2007) definition of political astuteness is an "awareness and understanding of legislative and policy processes, and political skills" (p. 260). To quantify graduate students' political astuteness, an adapted Clark's (1984) Political Astuteness Inventory (PAI) was employed in a health policy course, as well as among students attending a state legislative day. Both studies found significant improvement in political astuteness scores following experiential learning events focused on health policy advocacy (Primomo, 2007; Primomo & Bjorling, 2013).

**Capitol Hill Experiential Learning:** In August, 2016, five James Madison University Doctor of Nursing Practice (DNP) students attended the School of Nursing's first *Health Policy Institute (HPI)* in Washington D. C., and in May, 2017, seven DNP students attended the second *HPI* on Capitol Hill, spending one intensive interprofessional week living and working on Capitol Hill as part of their practicum experience. They were each assigned a mentor at the federal policymaking level. Students worked for Senator Kaine's office, completed assignments for Congresswoman Comstock's office, worked with the American Nurses Association, the American Association of Colleges of Nursing, the Institute for Public Health Innovation, the National Alliance to End Homelessness, and American Association of Home Health and Hospice public policy divisions. The second *HPI* occurred during a historical week with students witnessing the passage of the *House* Health Care Repeal/Replace Plan (American Health Care Act, AHCA), Sally Yates' testimony, and FBI Director Comey's firing.

During both *HPIs* students met essential health policy components for their doctoral education and provided reflective narratives linked to DNP policy focused American Association of College of Nursing (AACN) Essentials. During the 2016 *HPI* One student assigned to work with the American Association of Colleges of Nursing (AACN) on Title VIII funding reported, "I personally was amazed at the level of recognition and respect that the AACN receives on Capitol Hill. I realize that this is the result of years of hard work and policy promotion, but they have been able to prove through evidence that these workforce development programs have paid off. The public has supported nursing efforts even through budget cuts and other services requesting appropriations." Another student expressed, "this was the most beneficial and life changing experience....the highlight of my entire DNP program". One 2017 *HPI* student really summed up the experience, "I feel through my work and experiences here at the Health Policy Institute, I have become competent in the process of health care policy and advocating for healthcare on a federal level. I came into this experience feeling intimidated and unsure, but I am leaving with confidence and the motivation to do more as a nurse to advocate health policy, not only in my local community, but for all Americans". All participating students self-reported an increase in knowledge and comfort level related to healthcare political advocacy. Additionally, policymaker feedback related to the students' level of participation was positive.

**Meeting AACN Essentials** (AACN, 2006): Analyze the environment and process of policy making at the federal level within the context of health policy.

Critically analyze health policy proposals, health policies, and related issues from the perspective of consumers, nursing, other health professions, and other stakeholders in policy and public forums.

Influence policy makers through active participation at the federal level to improve health care delivery and outcomes.

Educate others, including policy makers at all levels, regarding nursing, health policy, and patient care outcomes

**Conclusion and Implications:** Health care professionals have often lacked the knowledge, experience, and /or underestimated their ability to educate legislators on the value of healthcare, health care professionals, and healthcare-based need for policy change. Implementing interprofessional experiential experiences to improve political astuteness may prove to enhance health care professional's likelihood of influencing policy change in the future.

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## PST2 - Poster Session 2

### Teaching Q Methodology to Baccalaureate Nursing Students

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#### Abstract

**Background:** There is a growing professional emphasis on providing patient-centered care, but teaching patient-centered research methods in nursing curricula is far from routine. Q methodology is a philosophical framework and set of techniques used to systematically study subjective attitudes, beliefs, and opinions in a way that minimizes researcher bias. Participants actively make their preferences known through a sorting process; then by-person factor analysis is used to find groups with shared viewpoints. Q methodology can be used for research, quality improvement, and program evaluation; but few nurses have a basic understanding of this mixed-method design. The purpose of this project is to describe the implementation and evaluation of a one-day class in a baccalaureate nursing research course created to increase students' awareness of Q methodology.

**Methods:** Following a brief overview, students actively engaged in a mock Q study by generating opinion statements, known as a concourse, about their K-12 substance abuse education. Then students performed a Q sort and entered data into a web-based program. After reviewing the steps of data analysis, examples of undergraduate honor student Q methodology studies were shared with the group. Content was reinforced as students applied Q methodological principles and techniques to evaluate the class. The project was classified by the university Institutional Review Board as non-human subjects research. Students provided written responses to four evaluation questions regarding impressions of the class and the method to populate the concourse. The following week, students sorted their level of agreement with 35 subjective statements on a +4 to -4 grid. Anonymous data were analyzed with PQ Method software using centroid factor analysis and varimax rotation.

**Results:** Thirty-three sorts resulted in a four-factor final solution that explained 45% of the variance: *General Confusion* (N=6), *Seeing Usefulness* (N=3), *Valuing Practice* (N=8), and *Ambivalence to Research* (N=11). The most favorable attitudes were found among the *Seeing Usefulness* group who perceived that Q methodology was a good way to do patient-centered research and find opinions. Overall, the interactive format (1, 1, 3, 4) and participating in the step-by-step mock study (0, 2, 4, 2) were positive aspects of the class. Perceiving that the session would have better with prior knowledge (4, 0, 3, 3) and that there was too much to learn in one session (3, -2, 0, 4) represented areas for improvement.

**Conclusion:** This was the first study to explore outcomes from teaching Q methodology to undergraduate nursing students. The findings reinforce the best teaching and learning practices of exposing students to content prior to class and using active learning strategies. What this study adds to the literature is that teaching undergraduate students about Q methodology can generate interest in alternative approaches for studying subjectivity in nursing practice. More research is needed to understand optimal content exposure.

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## PST2 - Poster Session 2

### The Use of a Skills Simulation Boot Camp to Increase Self-Confidence in Prelicensure BSN Students

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#### Abstract

To determine the overall impact of an orientation skills boot camp on the confidence of nursing students to perform skills, the research team designed a study based on a quasi-experimental pre- and post-design. The faculty research team attained organizational Institutional Review Board (IRB) approval at the small, private, health sciences college and the large tertiary care parent organization associated with the college. Ninety-two senior year nursing students in the Bachelor of Science in Nursing senior 1 clinical course were eligible to participate. Students submitted pre- and post-surveys electronically via Blackboard Learning Management System. The orientation skills boot camp included rotations through the following stations: Physical assessment, post-surgical abdominal wound with sterile dressing change, chest tube and tracheostomy care, insertion of intravenous catheter and nasogastric tube, and administration of intravenous medications. The measurement tool selected for use was the National League for Nursing (NLN, 2005) Student Satisfaction and Self-Confidence in Learning, 13-item instrument. NLN grants permission to use this tool for non-commercial use (NLN, 2005). By using a 5-point Likert scale, the tool measures student satisfaction and self-confidence in learning (NLN, 2005). A description of the tool includes reliability testing using Cronbach's alpha: satisfaction = 0.94; self-confidence = 0.87 (NLN, 2005). The tool was adapted for this study to include questions measuring student confidence on the individual skills performed at the stations. This ongoing study incorporates results over a period of 3 non-consecutive clinical semesters. Results from the first two semesters compare mean scores from the student surveys and show an increase in confidence on the post-surveys. Fifty additional students will complete the boot camp study during fall 2017. Results from the three semesters will be compared by paired t-testing and completed for the conference poster.

Simulation in nursing provides a safe environment to develop judgment and hone skills essential for practice (Robinson & Dearmon, 2013; Liaw, 2011). The use of simulation allows students the opportunity to apply concepts and skills learned within the nursing curriculum (Robinson & Dearmon, 2013). Additionally, the simulated environment provides a nonthreatening milieu for application of clinical judgment without the risk of actual patient harm (Robinson & Dearmon, 2013). It is suggested that simulated learning environments are a modern-approach to learning and are preferred over the traditional classroom by students who are accustomed to technology (Bland, Topping, and Wood, 2011; Harder, 2010; Robinson & Dearmon, 2013). The NLN fully supports a myriad of simulation strategies for use within nursing programs and endorses that these experiences may substitute for up to 50% of clinical hours (Rutherford-Hemming, Lioce, Kardong-Edgren, Jeffries, & Sittner, 2016). According to the Virginia Board of Nursing (2013), nursing education programs may incorporate up to 20% of total clinical hours as simulation experiences.

Medical education frequently utilizes clinical boot camps for resident training but the use of this strategy with nursing education is sparse (Yaylaci & Kitapcioglu, 2015). Hogewood, Smith, Etheridge, and Britt (2015) wrote about the development and implementation of an OB/PEDS Boot Camp for nursing students including a description of the different educational stations employed, however this article did not incorporate a study of its effectiveness. Few studies link simulation interventions to specific clinical skills, however Valizadeh, Amini, Fathi-Azar, Ghiasvandian, and Akbarzadeh (2013) report an increase in student confidence to perform peripheral venous catheterization on pediatric patients. This team utilized a group-based simulation where the students practiced catheter insertion on infant manikins, role playing, and critical thinking application of a written scenario.

Liaw and colleagues (2012) show an increase in student confidence to perform skills after participating in a simulation-based learning experience (Liaw, Scherprier, Rethans & Lainin-Yobas, 2012). Kimhi et al. (2016) found that simulation education increased confidence in nursing students regardless of whether the intervention occurred prior to or after a student's clinical experience. Dearmon et al. (2013) revealed that by incorporating a 2-day simulation-based orientation for beginning nursing students, confidence as well as knowledge increased. Additionally, the team found that students reported a decrease in anxiety, contributed to the non-threatening practice environment and learning about instructor expectations. Thomas and Mackey (2012) relayed that when student confidence was elevated they were more apt to perform skills and reach their clinical objectives. Simulation is most effective in the more advanced student due to their higher knowledge level of theory, potentially impacting their clinical decision-making (Thomas and Mackey, 2012).

Utilizing the NLN Student Satisfaction and Self-Confidence in Learning tool, Lewis and Ciak (2011) found positive results for self-confidence and satisfaction, as well as an increase in knowledge following a pediatric and obstetric simulation experience. Working under the auspices of the NLN, Jeffries developed the Nursing Education Simulation Framework (NESF) (Schlairet, 2011). The NESF cites self-confidence as one of the crucial student outcomes of simulation along with learning, skill performance, satisfaction, and critical thinking (Schlairet, 2011).

The influence of simulation on nursing student's self-confidence to perform specific skills and the use of orientation boot camps in student nurse education warrants further study. Literature supports and validates the incorporation of simulation-based experiences into nursing education programs with support at a national and state level. This study is of benefit to healthcare organizations as they plan orientation programs for nurse graduates as well as simulation-based training for new skills and technologies. The concepts of this study will assist the implementation of evidence-based practice into the clinical setting and benefit nursing praxis.

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## PST2 - Poster Session 2

### Do I Stay or Do I Go Now?" Exploring Moral Distress in Operating Room Nurses

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#### Abstract

**Background:** Operating room nursing is a highly charged profession and like most specialties is faced with life and death decisions to ethical dilemmas. Moral distress is a concept that has been explored in various different nursing specialties. The research shows that moral distress can impact practice negatively such as contributing to burnout, mental and physical illness, as well as premature abandoning of the profession. The concept of moral distress has never been studied in operating room nurses and since this specialty practices in an ever changing challenging environment it is worthy of exploration.

**Methods:** A quantitative, voluntary electronic survey design study utilizing the Moral Distress Score Revised (MDS-R) (Hamric) and the COPE inventory (Carver) was conducted at a multi-campus hospital system in the northeast. Descriptive and inferential statistics were used to analyze the data.

**Results:** Three hundred operating nurses were invited to participate in the study, which yielded a 20% response rate (N=61). Overall the total MDS-R was low, but when separated for those nurses who have either left a position due to moral distress or were considering leaving now was almost triple. The amount of moral distress was also found to be lower when the nurses reported using positive coping mechanisms and had a practice environment that was considered positive.

**Implications:** Moral distress is present in operating room nurses and positive coping mechanisms and a healthy work environment may be able to help mitigate the negative impact. The amount of overall moral distress can influence retention and overall health and well-being in operating room nurses. With the looming shortage of specialty nurses especially operating room nurses in acute care, this study can assist leaders in creating a positive work environment. Ultimately retaining experienced operating room nurses has both a financial implication along with positive patient outcomes.

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## PST2 - Poster Session 2

### Applying the Theory of the Dynamic Nurse-Patient Relationship to Develop Communication Skills for Nurses

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#### Abstract

The value of interpersonal communication and the communication skills of the nurse cannot be underestimated. While working with nursing students, this author found that the bedside computer distracted them from their patients as their attention was diverted to the computer. The purpose of Orlando's Theory of the Dynamic Nurse-Patient Relationship was to identify the strategies for teaching nursing students how to apply effective nursing practice, including communication. There are three major concepts associated with the theory: the patient's behavior, the nurse's reaction to the behavior, and the nurse's subsequent action.

To put the theory into practice, the nurse derives the patient's need for assistance based on observation and patient behaviors, including a need for help or need for improvement. Patients who are cognitively or physically impaired are not able to express their needs. The nurse determines the need for help through observation of the patient's behavior, such as observing restlessness or an adverse change in vital signs. Although some patients may experience little trepidation in expressing their needs, other patients may need encouragement to articulate their problem. Nurses, while performing a functional task such as a physical assessment, will initiate communication with the patient, which in turn may lead to identifying a patient's need. The nurse's reaction occurs internally, within the nurse. The nurse's reaction consists of three components that occur in the sequence of perception, thought, and feeling. The reaction is generated through the nurse's perception of the patient's behavior.

The theory is expressed in simple language that breaks down the communication between the nurse and the patient into two primary categories, automatic and deliberative action. When a deliberative action takes place, the patient's immediate need is met after validation and discussion between the nurse and the patient. An automatic action is explained as an action that is carried out without any discussion or input from the patient. If the nurse uses a deliberative approach and validates the patient's distress or unmet need, a helpful, trusting relationship is established.

This work proposes a model that affords a visual demonstration of Orlando's Theory of the Dynamic Nurse-Patient Relationship that can act as a framework to support the examination of patient interactions with both nurses and student nurses.

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## PST2 - Poster Session 2

### Relationship Between Incident Occurrences and Feeling States of Nurses in a Surgical Ward

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#### Abstract

**Background:** Reducing adverse workplace incidents is an area of high priority in healthcare; however, between 1,100 and 1,200 of these incidents occur annually, with no decreases noted over the past 4 years, in Japan. Current measures are therefore ineffective in reducing workplace incidents. This may be because of an inability to distinguish between incidents caused by physical states and those that are considered “careless mistakes.” Emotional states are an example of physical conditions that differ from nurses’ usual status. By clarifying the relationships between adverse incidents and emotional states, we may be better able to take effective measures to reduce or eliminate these incidents.

**Aim:** We seek to clarify the relationship between workplace incidents and continuous emotional states of nurses. We also aim to obtain suggestions for preventing these incidents by clarifying these relationships.

**Method:** We targeted nurses who work day and night shifts in a hospital ward between February 1 and 26, 2016. All subjects provided written informed consent for participation. Nurses were given a handheld monitoring unit and were asked to input their subjective emotional states during the morning and evening staff meetings via a 6-level face scale. Here, 6 indicated a “very good” mood and 1 indicated a “very bad” mood. We then obtained incident reports from the hospital. We divided the input scores into three working shifts indicating day, night, and both shifts, and compiled a total of 5 items; at the start of work and at the end of work, at both the start and end of work, change over work, and change over work: absolute value. We analyzed the compiled scores and incident-related reports using a Wilcoxon test and descriptive statistics. Statistical significance was determined by  $P < 0.05$ .

**Result:** Twenty-eight nurses (experiment participation rate: 97%) participated in this study. The total number of incidents that occurred during the experimental period was 14, of which 8 occurred during the day shift (57%) and 6 occurred during the night shift (43%). In this research, regardless of type or level, any incident that occurred was considered a single incident. Nurses who had experienced incidents at least once during the experiment were assigned to the Incident Group, and nurses who did not experience incidents assigned to the No Incident Group.

There was a significant association for change over work: absolute value for the nurses’ individual scores and incident occurrences. The Incident Group score was 1.25 points [0.88, 1.80], and the No Incident Group score was 0.75 [0.54, 1.00] ( $p = 0.018$ ). The Incident Group therefore demonstrated larger change over work: absolute amount scores than did the No Incident Group. Increased incident occurrences were associated with greater changes in emotional state values, regardless of whether these were in a positive or negative direction. In addition, there was no significant association between emotional state score for either group and incident occurrence. There was no significant association between individual ratings of emotional state and incident occurrence, for each nurse.

**Discussion:** Since the change over work: absolute value score of the Incident Group were significantly larger than that of the No Incident Group, we determined that the fluctuation in emotional states was more closely related to incident occurrence than the direction of change (for example, going from a bad to a good mood, or vice versa). Further, since the emotional states of individual, rather than groups of, nurses related to incident occurrences, the emotional state of each individual nurse was more important when considering relationships to workplace incidents.

There was a significant relationship between the emotional state of the nurse and the occurrence of workplace incidents. By evaluating nurses’ emotional states, it may be possible to reduce these occurrences.

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## PST2 - Poster Session 2

### The Process of Adapting SafeMedicate© (Medication Dosage Calculation Skills Software) for Use in Brazil

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#### Abstract

Failures in the medication-use processes significantly contribute to the reduction of patient safety. A Drug Information Centre in Brazil reports that most errors are related to prescribing, preparing, and administering medications (Dos Santos, Winkler, Dos Santos, & Martinbiancho, 2015). A study comparing the educational practices and perspectives related to the medication dosage calculation skills of providers reports that most academic educators in nursing, clinical educators in nursing and clinical nurses agree that dosage calculation skills are important for safe medication administration (Crawford, 2016). Students using safeMedicate achieve significant improvements in the construction of conceptual and calculation competence in medication dosage calculation problem-solving (MDC-PS) in both UK and USA programmes. The safeMedicate experimental research highlights how authentic environments are more able to support all cognitive learning styles in mathematics (Weeks, Clochesy, Hutton, & Moseley, 2013) than traditional didactic methods of education. The dissertation aims to adapt and evaluate Authentic World Medication Dosage Calculation software for use in Brazil. The dissertation will be carried out in two phases: (1) adaptation and (2) preliminary evaluation. It uses a formative research approach which is a kind of developmental research or action research which improves instructional-design theory (model), practices, and processes, guided by the adapted model of the Participatory and Iterative Process Framework for Language Adaptation (PIPFLA) (Maríñez-Lora et al., 2016). It consists of an 11-step process which follows and assures the theoretical base used for safeMedicate development as well as the theoretical base guidelines for the language adaptation process. The safeMedicate program methodology is rooted in Piagetian psychology as it is useful to look closely at the ways in which the individual builds particular mathematical ideas or concepts (Kolb, 2014). SafeMedicate experimental research highlights how authentic environments are more able to support all cognitive learning styles in mathematics (Weeks, Clochesy, Hutton, & Moseley, 2013) than traditional didactic methods of education by offering opportunities to tailor and expand mathematical skills through mental computation, arithmetic, geometry/visual, and algebra (Weeks et al., 2013). Language adaptation generally includes more than a simple word-for-word translation. It is an interpretation of meaning. This moves translation beyond grammatical rules and writing conventions to an interpretation informed by socio-cultural and contextual factors. In order to inform and guide the language adaptation process, it is required to use a combined emic (within-culture/insider's perspective) and etic (similarities across cultures/outsider's perspective) (Maríñez-Lora, Boustani, del Busto, & Leone, 2016). Translation and back translation have been common steps in adaptation processes. However, the back translation benefit of providing information about semantic and conceptual equivalence has been questioned in the translation science. Moreover, the International Medical Interpreters Association does not recommend back-translation. The argument is that comparison of an original source text and a back-translated source provide only limited and potentially misleading insight into the quality of the target language text. This happens because many adaptations made by the translator which perfectly convey the meaning of the original are lost in the back translation giving the appearance of an inaccurate rendition (Harkness, 2013). It is recommended that instead of looking at two source language texts, it is much better in practical and theoretical terms to focus attention on first producing the best possible translation and then directly evaluate the translation produced in the target language, rather than indirectly through back translation (Harkness, 2013). Although studies incorporate systematic approaches of language adaptation process in various degrees, the source is not often cited (Maríñez-Lora et al., 2016). As such, a strength of this process is the transparent nature in which safeMedicate will be adapted. In order to strength methodology, the adaptation results will be based on the triangulation of three methods (focus groups, interview, and face validity surveys) and considers the evaluation methods used to prepare language adaptations which are Informativeness, Source Language Discrepancy, Security, and Practicality (Maríñez-Lora et al., 2016). In addition, it will be used journaling. Journaling helps to gain a more in-depth perspective beyond the initial understanding of the research question. By identifying and documenting motivations, interests, and perspectives initially and throughout the research process, the principal investigator consciously compare the final interpretation with what first expected to find, building trustworthiness of the data. The focus groups are a language adaptation team and panel of experts whose group meetings will occur through synchronous communications (skype conference calls) according to members' availability, which will be recorded. A poll will be made to discover when most are available. After the meeting, data will be synthesized and a cross-checking of recommendations will be performed. The language adaptation team will merge two translations from the source language version to target language (English-Portuguese). Afterwards, the panel of experts will provide feedback of adaptations necessary, following a cycle of re-adaptations until the panel reaches consensus. Later, a face validity survey will be presented to the target group (nursing students and professionals seeking an update) as an opportunity to reflect and evaluate implementation of the instructional-design as a whole. The recruitment strategy will occur through snowballing sampling method. The partners for safeMedicate adaptation will be selected according to their role in the process. For the language adaptation team, the inclusion criteria is the fluency in English and Portuguese. For the panel of experts, it will be included only nursing professionals that have been in the job market for four years performing as professors, supervisor of nursing students and/or clinical nurse. The student panel will be draw from a list of the names indicated by the panel of experts: each expert will indicate three students and one professional nurse. The 18 students and 6 nurses will be invited to the student panel. The three first

students and one professional nurse who commits to participate will be allowed access to the safeMedicate Brazilian version. To explore the evaluation of safeMedicate and identify the adaptations necessary in the software for use in Brazil, transcripts from the group conference calls will be subjected to content analysis. The primary investigator and a second coder will first independently code the transcript of the first conference call. The second coder is a doctoral nursing professor trained in qualitative research. Both will identify and sort the statements referred to the research question (which are the adaptations necessary in safeMedicate for use in Brazil?). Further corroboration of the themes and domains will be done using ATLAS/6 ti software. Inter-rater reliability will be calculated through ATLAS/6 ti software. Descriptive statistics will be used to analyze and report the face validity survey data, calculating frequencies, measures of central tendency, and standard deviations. The results provide evidence to support future language adaptations. The transparent nature in which safeMedicate will be adapted allows future researchers to follow a detailed systematic language adaptation process, using the strength of qualitative and quantitative approaches.

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## PST2 - Poster Session 2

### An Explanatory Case Study That Includes Evidence-Based Practice in a Hospital Setting

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#### Abstract

Healthcare organizations implement evidence-based instruments and integrate the instrument within the electronic health record with the aim of reducing patient harm while improving patient outcomes and standardizing procedures (Abraham, 2011; Kelley, Brandon & Docherty, 2011; Miake-Lye, Hempel, Ganz, & Shekelle, 2013; Stausmire & Ulrich, 2015). The Morse Fall Risk Scale is one such instrument that healthcare organizations use to identify a patient is a risk to fall (Morse, 2009). Once a patient is identified as a fall risk, specific interventions can be used that will assist in keeping the patient from falling (Yates & Creech, 2012). When inconsistencies exist within the process of implementing these instruments patient harm may occur (Lakish, Tschannen, Lee, 2012). Evidence-based patient assessment instruments, such as the Morse Fall Risk Scale, are reliable and valid assessments when used as designed (Beaumont & Russell, 2012). Understanding the process nurses use when implementing the Morse Fall Risk Scale is important for preventing falls. This single explanatory case study used the components of high reliability theory to examine how medical-surgical staff nurses implement an evidence-based fall risk assessment instrument. Data was collected from an evidence-based belief survey (Melnyk, Fineout-Overholt, & Mays, 2008), observations of medical surgical nurses in practice, interviews with a subset of observed nurses, interviews with organizational leaders, staff and leader education records, and a review of the organizational policy and patient electronic health records. The collected quantitative and qualitative data was first analyzed separately and then triangulated (Almutairi, A., Gardner, & McCarthy; Yin, 2014), matching empirical patterns to propositional statements (Sarker & Lee, 2003) to explain the nurse's process for implementing the Morse Fall Risk Scale. The elements of the high reliability theory explained the majority of the data, however new concepts emerged, including management role, forces impeding high reliability, nurses managing roles, judgment, and other considerations.

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## PST2 - Poster Session 2

### The Impact of Structured Research Curriculum in Undergraduate Nursing Programs

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#### Abstract

Across the country, undergraduate students are increasingly getting first-hand independent research experience in the bachelor's degree curriculum. Many schools have established programs for students to become involved in the scientific research community as early as their freshman year (Eagan, et al, 2013). These programs give students a chance to learn about inquiry design and approach, execution, and writing. This allows students to understand their place in the discovery and implementation process (Beckham, Simmons, Stovall, Farre, 2015). Most of these programs have been established for students of the natural sciences, but there are less opportunities for nursing students. Although nursing and the natural sciences are not identical, they are inherently connected. The practice of nursing is the ability to apply scientific knowledge and research to real-life clinical situations. There is a distinct lack of dedicated undergraduate BSN curriculum for research-based courses in public universities around the country. While many schools have honors programs that offer independent nursing research opportunities to their students, honors programs represent only a small fraction of the undergraduate nursing student population. Out of 16 public schools surveyed in Texas, only 10 had a required research course for undergraduate BSN students. Around other regions of the country, the picture was similar. Out of 22 degree plans analyzed from schools in regions of the country such as the West Coast, East Coast, and South, only 17 had required research courses. Although many BSN nursing programs are lacking dedicated research content, the American Association of Colleges of Nursing lists "scholarship for evidence-based practice" as the third essential in their list (AACN, 2008). This document delineates how professional nursing practice involves the process of identifying problems, interpreting and implementing evidence based practices to solve the problem, and evaluation of effectiveness of the implemented practices. It stands to reason that taking more focused nursing research courses would boost a nurse's ability to complete this process in their clinical careers. Since evidence-based practice is derived from research studies, it is important that a nurse is able to understand underlying research methods and analysis when reading or hearing about new evidence-based practice that may be of interest to them. Several studies shows that understanding and implementing evidence-based practice is a fundamental element of being an effective medical professional (Mackey, Bassendowski, 2016). Unfortunately, multiple studies have revealed that many nurses are intimidated by the research behind evidence-based practice. Many nurses state that they are unsure how to interpret statistical jargon and incorporate findings into their own patient care, as well as how they perceive scholarly articles to be too complex to appreciate (Rojjanasrirtat, Rice, 2017). Many are turned off by a lack of comprehension in the research process, and an inability to see results and determine their significance and validity (Keib, Cailor, Kiersma, Chen, 2017). There are a limited number of studies that have shown improvements in nurses' attitudes towards evidence-based practice after completing a research course. One such study concluded in 2017 that research is "an effective way to improve students confidence and perceptions of EBP" in undergraduate nursing students (Keib et al, 2017). Another determined that research in BSN degree educational settings provides for better theoretical practical applications of research findings (Ayoola, Adams, Kamp, Zandee, Feenstra, Doornbos, 2016). There is not enough literature to determine whether a push for more dedication to independent nursing research projects in undergraduate BSN programs could lead to better outcomes at the bedside. Further evidence would need to be collected to determine the answer these three fundamental research questions: Does there need to be a nationwide emphasis on implementing nursing research curriculum in undergraduate baccalaureate programs? Do nursing students who complete independent research courses demonstrate better clinical outcomes than students who do not have these programs? Do nursing research courses required in undergraduate baccalaureate programs include independent research education or only introduction to existing nursing research? Analyzing data specific to these research questions could be valuable in improving attitudes towards evidence-based practice after graduation.

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## PST2 - Poster Session 2

### Knowledge Surveys in Nursing Education: Nursing Students' Perceptions of Their Knowledge and Clinical Skill Abilities

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#### Abstract

Knowledge surveys have been used for educational assessment to measure cognitive knowledge, assess student confidence and perceptions of knowledge, identify content areas that need further development, and provide students a guide for study. The purpose of this study was to discover and examine pre-licensure nursing students' perceptions of their own knowledge (and expectations) regarding their clinical abilities and, to evaluate the effectiveness of knowledge surveys as an educational tool for increasing students' knowledge and clinical skill(s). The conceptual framework selected for this research study was derived from Lave and Wegner's (1991) seminal work, which contributed to the understanding of situated learning through a focus upon the act of learning and its relationship with the social and cultural contexts where such learning occurs.

I developed the pre- and post- knowledge surveys based upon the work of Wirth and Perkins (2005) and Jarzemsky, McCarthy and Ellis (2010) for use with professional, pre-licensure nursing students. In addition I created a demographic survey, a clinical simulation performance evaluation and finally, I created evaluation items for this study, I used an experimental, randomized pre-test, post-test design and, participants received didactic learning materials and participated in a high fidelity simulation specifically focused upon end-of-life care.

Using non-parametric tests using chi square (with Phi or Cramer's V) as well as the *t*-test for paired samples, I evaluated whether or not the use of a knowledge survey increased knowledge and clinical skill/ability. The participants reported a perception of improvement in their knowledge and clinical skill/abilities; they overwhelmingly overestimated their knowledge; they over/under estimated their abilities to perform clinical skills; and their perceptions did not reflect actual ability to safely demonstrate clinical skills/abilities. These findings may be consistent with the Dunning-Kruger effect. This effect is found when low performing students over-estimate their ability and high performing students' under-estimate or have an accurate perception of their ability. I also used non-parametric tests, including chi square test (with the McNemar test and Phi correlational coefficient) to evaluate whether there was a relationship between student perceptions and their cognitive knowledge and clinical skills/abilities. It was difficult to determine whether the student's perceptions of their knowledge and clinical skill/ability were strongly or directly related to their actual ability and, student's perceptions of their knowledge and clinical skill/ability were more strongly and positively related to their actual clinical ability during a simulation.

There are several strengths and limitations of this study. The strengths included: there are no published studies in nursing regarding the use of a knowledge survey; the literature does not reveal any discipline that has assessed behavioral components using a knowledge survey and this study introduces a behavioral component; there is the potential to expand a knowledge survey across an entire semester of a nursing course rather than focus upon a single area of content; and, finally, the incorporation of the QSEN competencies illustrates how profession-specific competencies can be incorporated into a knowledge survey. The limitations of this study included the fact that this was a pilot study; the sample size was small; the use of on-line surveys may affect student accuracy; the lack of debriefing items in the surveys; the lack of diversity of participants, the use of non-parametric statistics; and the difficulty of ensuring that participants did not talk with one another and influence the findings of the study.

There are a number of directions for future research and nursing education practice. The directions for research include: planning ahead when creating a knowledge survey in order to ensure the validity/reliability of items; planning to control for bias by using participants not known to the researcher; exposing students to the concept and function of knowledge surveys prior to conducting a research study; providing a thorough description of the knowledge survey with students prior to recruitment; administering the knowledge survey in class rather than on-line; consider offering extra credit or a small incentive for students to participate in knowledge survey research; collect data from a knowledge survey that is administered over several semesters; and lastly, categorize the skill of participants into levels of high, mid and low.

There are several ways in which the use of knowledge surveys can impact nursing education practice. For instance, it may be helpful to explain to students the goal of using knowledge surveys and how the use of such surveys can improve metacognition. In addition, educators should be mindful of the possibility of the Dunning-Kruger effect; closely monitor student activities in the clinical setting; provide timely and accurate feedback to improve metacognition; recognize students may not accurately self and/or peer evaluations for simulations; and finally, encourage the practice of reflective judgement.

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## PST2 - Poster Session 2

### Utilizing Simulation and Experiential Learning to Make Onboarding Newly Hired Nursing Staff Fun and Engaging

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#### Abstract

Evidence has shown that simulation is a useful tool in teaching because it provides a safe and engaging environment for learning (Norman, 2012). A key component of adult learning is active participation in the learning process which results in increased engagement in and effectiveness of the learning process (Reime et al., 2017).

The National League of Nursing has advocated for the use of simulation as a teaching methodology in nursing education for many years. Simulation can take many forms from complicated scenarios with high fidelity mannequins to the straightforward teaching of psychomotor skills. Simulation provides a safe environment for situated cognition (learning in context) for newly hired nursing staff, away from call bells and away from the stress of the hospital floor (NLN, 2015). In this environment they are free to make mistakes, ask questions, become familiar with technology, and learn the skills needed for safe and competent practice. During simulation newly hired nursing staff become more competent with clinical skills and develop the self-efficacy and confidence that facilitates their transition to a new workplace with new technology (Lamers, Janisse, Brown, Butler, & Watson, 2013).

The training and retention of newly hired nursing staff poses challenges to all nurse educators. One way to address the challenges is to incorporate experiential learning via simulation in the onboarding process and completion conference for all newly hired nursing staff (Everett-Thomas, Valdes, Fitzpatrick, & Birnback, 2015).

A high proportion of newly hired nursing staff on the medical-surgical units is new graduate nurses with no nursing experience or nurses with no acute care nursing experience. Thus this new nursing staff is unfamiliar with the acute care environment, and /or related technology. Studies indicate that 35% to 60% of new graduate nurses quit in the first year of nursing due to discontent, inadequate support, and insufficient training (Hommes, 2014).

All newly hired nursing staff is required to attend an onboarding experience with a nurse educator before they can begin orientation on their units with their preceptors. The new hires also attend a completion conference at the end of the orientation process to ensure that all competencies are completed. To increase the confidence and competence of newly hired nursing staff the standardized use of simulation during the onboarding process and completion conference was implemented.

Previously an unoccupied room on one of the med-surg units was used for the orientation process including the completion conference. The barriers and challenges of this practice were: the lack of availability during high census periods, the ringing of call lights, the noise, and distractions of the unit activity, visibility to patients and families, absence of necessary technical equipment and lack of continuity of environment. The unoccupied rooms on the unit did not provide an appropriate or effective atmosphere for the learning process. Therefore the onboarding experience and completion conference are now conducted in the simulation lab to improve the confidence, self-efficacy, technical skills and safe nursing practice of the newly hired nursing staff.

The theoretical model used for this project was Bandura's theory of Self Efficacy, as it supports practices to increase confidence, self-efficacy, and behavior changes necessary to enhance competency and safe practice in clinical skills ("Nursing theory ( SET)," 2012).

Simulation provides an arena for individualized attention during the learning process. It also offers an environment for addressing diversity in learning needs and styles with the ability for individualized student instruction (Lamers et al., 2013).

All newly hired nursing staff is provided with an evaluation questionnaire that is composed of eight questions using a visual analog scale and distributed via paper or computer formats. The instrument was developed by the nurse educator and reviewed by four content specialists. The questionnaire assesses the outcome of using simulation in the onboarding process and the completion conference by evaluating: self-confidence of staff, competency in clinical/technical skills, satisfaction with the simulation experience, and staff perception of preparation for safe nursing practice.

The data being collected reveals that newly hired nursing staff is satisfied with the use of simulation during the onboarding process and the completion conference. "Going to the simulation lab was the best part of the onboarding process." "Using the ceiling lifts was helpful." "Now I know how to use the PCA with confidence." All newly hired nursing staff reported increased confidence in competency of clinical and technical skills after the simulation experience. All of the newly hired nursing staff felt that they were well prepared with the skills necessary for safe nursing practice.

Our experience of utilizing simulation in the onboarding experience demonstrates its value as a tool in developing nurses that are confident, competent, and capable of exemplary nursing practice. New formats for incorporating simulation in the onboarding process and completion conference are being explored for the future.

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## PST2 - Poster Session 2

### Nursing Student Experiences of Clinical Data Use in Clinical Rotations

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#### Abstract

**Focus of Inquiry:** Clinical rotations are an integral part of nursing education. During clinical rotations, nursing students are expected to use clinical data to engage in the clinical judgment learning process by gathering, analyzing, and synthesizing clinical data to provide quality patient care (Tanner, 2006). Prior to the implementation of EHRs, a patient's clinical data were documented in paper charts, but the implementation of EHRs in recent years may have changed the way that students interact with and use clinical data (Baillie, Chadwick, Mann, & Brooke-Read, 2012; Tippen, 2014). Various challenges in interacting with clinical data may exist due to issues such as various designs of different EHRs per facility, various facility policies, security concerns and restrictions regarding student use of EHRs, and little experience with EHRs in nursing classes or simulation labs may consequently hinder nursing students' development of clinical judgment (Baillie et al., 2012; Baillie, Chadwick, Mann, & Brooke-Read, 2013; Tippen, 2014). These challenges may consequently hinder nursing students' development of clinical judgment. It is important to ensure that nursing students develop clinical judgment (Schoessler et al., 2012) and information literacy (Gugerty & Delaney, 2009) so that newly licensed graduate nurses are prepared to provide safe patient care (Benner, Sutphen, Leonard, & Day, 2009). Various stakeholders in nursing education such as the American Association of Colleges of Nursing (AACN), the National League for Nursing, the Quality and Safety Education for Nurses project, and the Technology Informatics Guiding Education Reform Initiative have issued position statements or regulations to emphasize nursing students' competencies in using clinical data (AACN, 2008; Cronenwett et al., 2007; Gugerty & Delaney, 2009; Schoessler et al., 2012). Existing research is focused on nursing students' experiences of EHRs and the barriers and benefits of using EHRs rather than the phenomenon of nursing student experiences with clinical data use in clinical rotations. Foley (2011) compared positive behavior intention toward using an EHR upon entry into practice between nursing students who were exposed to EHRs and students who primarily used paper-based charting. A mixed methods study explored midwifery and nursing student experiences with EHRs in practice including the amount of EHR exposure, perceived preparedness to use EHRs, and perceived advantages and barriers to using EHRs in the clinical rotations of midwifery and nursing students in the United Kingdom (Baillie et al., 2012; Baillie et al., 2013; Brooke-Read, Baillie, Mann, & Chadwick, 2012). Mahon, Nickitas, and Nokes (2012) explored the challenges of transition to EHRs from the perspective of clinical nursing faculty and found concerns regarding facility policies and restrictions regarding the security of patient information and student access of clinical data. The findings from this study will contribute to a gap in the literature regarding nursing student experiences of clinical data use in clinical rotations. A deep understanding of nursing student experiences with clinical data use in clinical rotations is preliminary to ensuring an adequate clinical judgment learning process and to developing teaching strategies to enhance clinical nursing education. Nursing education programs may use these findings to assist in planning and decision making about preparation for clinical rotations, types of placements, or adjunctive activities to support students in clinical data use during clinical rotations.

**Purpose Statement/Research Question:** The purpose of this study is to describe the experiences of undergraduate nursing students with using clinical data in clinical rotations. The research question is "What are the experiences of nursing students with using clinical data in clinical rotations?" Clinical rotation refers to "practice in an inpatient, ambulatory care, or community setting where the student provides care to patients under the guidance of an instructor or preceptor" (Alexander et al., 2015, p. 40).

**Philosophical Framework:** This study will use the philosophical framework of phenomenology, which is the study of experience as perceived by each individual within the context of the world (Sokolowski, 2000). Through the phenomenological approach, human experiences are a valid means by which to develop knowledge about the world (Sokolowski, 2000). The phenomenological tenet of intentionality means that human consciousness is directed towards an outward object and cannot exist apart from this outward object; similarly, an object is only perceived through consciousness and does not exist without intentionality (Husserl, 1913/1982). This philosophical assumption allows for first person experiences, as consciousness intentionally interacting with the object, to represent the phenomenon of interest (Sokolowski, 2000). Descriptive phenomenology engages with subjective, human experience as a valid means to develop knowledge (Spiegelberg, 1971). In Tanner's (2006) Clinical Judgment Model, clinical data is regarded as a component of contextual material needed for clinical judgment and includes information such as health history and assessment data. Another component of Tanner's (2006) model is the process of analyzing and clustering clinical data and comparing a patient's expected responses to the actual situation represented by the clinical data. In this study, Tanner's (2006) Clinical Judgment Model does not serve as a theoretical framework; rather, the model assisted with the synthesis of background information and helped to identify the problem.

**Methodology - Phenomenology as Methodology:** Phenomenology serves as both a philosophy and a qualitative research methodology in which individual experiences are studied (Creswell, 2013). This philosophical lens supports the assumption that nursing students themselves are the experts on nursing student experiences with using clinical data in clinical rotations. Phenomenology as a methodology requires that the researcher align the methods of data collection, analysis, and reporting of findings with phenomenological assumptions (Colaizzi, 1978). The exploration of a human phenomenon also requires the suspension of all preconceived judgments in order to allow the phenomenon to emerge (Husserl, 1913/1982). The researcher will engage in ongoing bracketing of preconceived knowledge, expectations, assumptions, and expected findings to allow the phenomenon to emerge from the analytical process.

**Participants and Sampling:** This study will use purposive sampling, which is governed by the focus of the phenomenon and "purposely seeks both typical and divergent data to maximize the range of information obtained about the context" (Erlandson, Harris, Skipper, & Allen, 1993, p. 148). Participants for this study will be junior or senior level nursing students in a baccalaureate program who have completed at least one semester of a clinical course in which they participated in clinical rotations. There are no exclusion criteria for participation in the study. The clinical rotation settings will be inclusive of multiple types of clinical sites represented in participant experiences such as inpatient acute care medical surgical

hospitals, inpatient mental health facilities, community settings, ambulatory settings, and long-term care. The inclusion of participants with experiences in a variety of types of clinical rotations and the absence of exclusion criteria will assist in maximizing the collection of diverse data in the study. After Institutional Review Board (IRB) approval, 18 participants were recruited from the two major metropolitan campuses of a baccalaureate nursing program at a public university. Each participant will receive a \$20 gift card after completing the interview.

**Data Collection:** Data was collected through the use of in-depth interview, which took place in a private location at a time and place mutually agreeable to both researcher and participant. In-depth interviewing is appropriate for this study because the focus on the experiences of the participants is integrally tied to the philosophical assumptions of phenomenology; that is, that the descriptions of participant experience can reveal the phenomenon of interest (Wimpenny & Gass, 2000). Each participant completed one interview with an estimated time of 45-60 minutes. In phenomenological research, the researcher is the instrument. The researcher must ensure that all aspects of the study are conducted according to the philosophical perspective of phenomenology.

**Treatment of Data - Data Analysis:** This descriptive phenomenological study will use Colaizzi's seven step method of analysis. After data organization, the first step is to transcribe the recorded interviews verbatim and thoroughly read each transcribed interview. Second, important statements that directly address the phenomenon are extracted. The third step is to create a reconstruction of the previously extracted important statements into general, representative statements, and the fourth step requires a grouping of the reformulated statements into thematic clusters. The fifth and sixth steps include the development of an exhaustive description of the phenomenon and a subsequent development of a statement of identification of the phenomenon. Lastly, participants review the findings, and changes that result from the review process are integrated into the final research report (Colaizzi, 1978).

**Scientific Rigor:** Scientific rigor will be developed through evidence of trustworthiness, which includes the four components of credibility, dependability, confirmability, and transferability (Lincoln & Guba, 2005). Credibility, dependability, and confirmability will be established through the use of reflexive journaling to provide insight, assist with ongoing bracketing, and assist in methodological decisions. Field notes will be used during the entire research process to provide a clear audit trail regarding analytical decisions. Dissertation committee debriefing will be utilized alongside field notes to support authenticity and promote the researcher's objectivity (Polit & Beck, 2012). Lastly, the use of participant review and feedback on the detailed description of the phenomenon that is developed from the analysis will promote authenticity of the research (Colaizzi, 1978; Lincoln and Guba, 2005).

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## PST2 - Poster Session 2

### Effects of an Evidence-Based Approach to Recruit and Retain Underrepresented/Disadvantaged Students in a BSN Program

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#### Abstract

**Background/Significance:** The demand for culturally competent healthcare services in Delaware continues to rise, while its supply of culturally and ethnically diverse nurses remains stagnant. The growing inequality between the diversity of the residents and the healthcare workforce will worsen as Delaware's minority population surpasses its present level (30%). Delaware's African Americans and Latinos bear the brunt of health inequality ("Delaware primary care health needs assessment 2015", 2016). Most residents of the state live in medically underserved areas (MUA) or are designated as medically underserved populations (MUP). Likewise, much of the state's three counties are designated as a health professional shortage area (HPSA) ("Delaware 2010 MUAs and MUPs", 2010). Nursing education programs in Delaware are not producing sufficient numbers of minority nurses to create a critical mass that will reflect the racial/ethnic makeup of the state. Efforts to recruit and retain nursing students from diverse backgrounds is critical to ensure culturally and linguistically competent patient care.

A Nursing Workforce Diversity grant funded by the Health Services Resources Administration (HRSA) enabled the University of Delaware School of Nursing (UDSON) to develop a comprehensive evidence-based program of recruitment and retention focused on minority and underrepresented/disadvantaged undergraduate nursing students. The program utilized evidence-based interventions to address the structural and intermediary social determinants of health (SDH) (Metcalfe & Neubrandner, 2016), with the overarching goal of increasing the diversity of the nursing workforce in Delaware.

The evidence indicates that financial needs, academic needs, social and emotional support, peer support, mentoring, and community partnerships are important aspects of recruiting and maintaining minority and underrepresented/disadvantaged nursing students (Berumen, Zerquera, & Smith, 2015; Dapremont, 2011; Degazon & Mancha, 2012; Ferrell, DeCrane, Edwards, Foli, & Tennant, 2016; "Healthy People 2020: Social Determinants of Health," ; Love, 2010; Nnedu, 2009; Tinto, 2006; Voss, Mathews, Fossen, Scott, & Schaefer, 2015; Wong, Seago, Keane, & Grumbach, 2008).

**Purpose:** Two goals of the evidence-based program described here focus on the effects of recruitment and retention of minority, and underrepresented/disadvantaged students over the course of three years.

**Method:** The University of Delaware School of Nursing conducted a 3-year evidence-based and comprehensive program to enhance nursing workforce diversity that was anchored in the Social Determinants of Health (SDH) Framework between July 1, 2014 and June 1, 2017. The program was conceived with a conscious awareness that diversity can only be fully cultivated when the highest levels of power and leadership at the university actively articulate and demonstrate articulate support (Levy, Heissel, Richeson, & Adam, 2016). Evidence-based features included: 1) financial support; 2) academic support; 3) social and emotional support; 4) peer support; 5) mentoring; and 6) community experiences in medically underserved areas (MUAs) and with medically underserved populations (MUPs).

**Sample:** Thirty-one undergraduate minority and/or underrepresented/disadvantaged nursing students (9 juniors, 9 sophomores, 11 freshmen) at the University of Delaware.

**Procedure:** Students from minority and/or underrepresented/disadvantaged backgrounds were recruited by the grant team as freshmen in the fall of 2014 (n=9), 2015 (n=9), and 2016 (n=11). Qualified students were interviewed by grant staff and offers to participate in the program were made to 29 students. Participants completed an initial survey to identify personal, family, and financial strengths and challenges. The results were used to develop individualized support for participants. These included: 1) financial support (scholarships, monthly stipends); 2) academic support (Retention Coordinator/advisor; one-on-one and group tutoring; nursing specific study skills; test-taking skills, note-taking skills, time management, organizational skills; writing support through the university writing center); 3) social and emotional support (social and cultural events targeted to participants) 4) peer support through the university counseling center and a peer mentoring program); 5) professional development (individualized professional development strategies, resume writing, job search skills); 6) leadership experiences (Student Nurses Organization and Minority Student Nurses Organization; 7) experience in MUAs and/or MUPs (e.g. partnerships with agencies that serve rural or underserved areas in the state).

**Analysis:** Data included information on retention rates; use and evaluation of program support resources, satisfaction with the program (e.g. financial support, academic advising, tutoring, university Writing Center, leadership opportunities, participation in cultural events), and GPA.

**Results:** Twenty-seven of 29 participants remain in the program (93.10%). One student decided to pursue a different major and a second student left the program for personal and financial reasons. All students achieved at least the minimum GPA to remain in the nursing program. Academic advisement by, and individual meetings with, the Retention Coordinator were highly valued by participants. Financial support ranked high with program participants, as did referrals to other support services (e.g., one-on-one and group tutoring, monthly group meetings of program participants, emotional and social support from the Retention Coordinator and peers, professional and leadership opportunities in the Student Nurses Organization and Minority Student Nurses Organization) community service (e.g., blood pressure screening; recruitment at area high schools). Participants currently hold leadership positions in the Student Nurses and Minority Nurses Organizations and one participant is an officer in the Men in Nursing program in the school of nursing. The participants provided input on aspects of the program which they did not find helpful. These included group counseling/support sessions, inconvenient group meeting times, and a desire for more community outreach. Overall satisfaction with the program over the course of the three years was 4.96 (0=lowest score; 5=highest score).

**Discussion:** As seen in the literature, financial and academic support were highly valued by participants and were the primary reasons that many gave for their success in the nursing program. The Retention Coordinator (also was also the academic advisor for all participants) was referred to in glowing terms for helping the participants with academic, financial, and personal issues. We believe that dedicating one individual to advise all of the program participants is essential to successful retention. Participants were very active in community organizations that served minority populations. For example, several participated in a church based organization which provided education and outreach to people with HIV/AIDS. Others were active in the Delaware Preconception Peer Education program which focused on outreach to minority high school students. Still others

were active in Lori's Hands (Delaware-based non-profit providing community-based services for chronically ill, and predominantly underserved/low income, seniors).

Conclusion: This evidence-based approach was successful in recruiting and retaining minority and underrepresented/disadvantaged nursing students over the course of the three years of the program.

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## PST2 - Poster Session 2

### Enhancing Student Nurses' Multiple Patient Medication Administration Skills Using an Electronic Barcode System

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#### Abstract

**Background:** Technology is increasingly being used at the patient bedside to improve patient safety and streamline nurses' workload. Nurses represent the greatest number of direct healthcare providers and are recognized as the "last line of defense" in preventing medication errors in healthcare settings. Currently, a majority of healthcare settings have implemented electronic medication administration record (eMAR) systems using barcode medication administration (BCMA). While nursing students may be introduced to eMAR technology during clinical experiences, many report feeling unprepared to use these systems safely and proficiently (Weeks, Clochesy, Hutton, & Moseley, 2013). Preparing student nurses to use eMAR and BCMA technology prior to engaging in off campus clinical rotations will increase their familiarity with the electronic barcode medication administration process upon entering practice.

**Significance:** Safe and accurate medication administration is a major concern in health care today (Harris, Pittiglio, Newton, & Moore, 2014). Pre-licensure nursing students are expected to provide safe care to a group of clients, including medication administration and prioritization of nursing care and skills (Aggar & Dawson, 2014). Medication administration constitutes part of the education of undergraduate nursing students, and the aim of undergraduate preparation is for students to gain an understanding of medications and how to safely administer them (Sulosaari, Kajander, Hupli, Huupponen, & Leino-Kilpi, 2012; Schneidereith, 2014). The American Association of Colleges of Nursing (AACN) recognizes as students become more experienced, increasingly complex clinical learning opportunities should be selected to prepare students for entry-level practice (2008). This can be accomplished by providing students opportunities to assimilate to the registered nurse role, including multiple patient medication administration, with multiple patient assignments in the clinical setting as well as in the simulation laboratory.

**Justification of the Study:** Nursing students are typically introduced to eMAR/BCMA technology during off campus clinical experiences. Unfortunately, each clinical site may use a different type of eMAR, potentially creating confusion and frustration as students are faced with a medication administration learning curve each time they enter a different facility. Utilizing eMAR/BCMA technology for on campus clinical experiences and simulations may benefit students in multiple ways. First, students can be exposed to eMAR/BCMA technology earlier in the curriculum. Next, students can become proficient with medication administration using one type of eMAR/BCMA system prior to starting off campus clinical experiences. This would provide students with more opportunities to safely administer medications using advanced technology. Lastly, adding this technology to simulation will increase the "real-ness" of medication administration during simulated clinical experiences. To date, little research has explored the use of technology and simulation to help undergraduate students improve their multiple patient medication administration skills.

**Purpose:** This poster presentation outlines the process of implementing and evaluating the use of an eMAR/BCMA system for use with senior students engaging in multiple patient medication administration.

**Methods/Evaluation:** Senior nursing students in a nursing management course that focuses on care of multiple patients will individually complete a faculty-developed multiple patient medication simulation using an electronic barcoding system and an eMAR; once at the beginning of the semester and once again at the end of the semester. Students will be evaluated on their ability to prioritize medications, correctly administer medications to simulated patients, and their use of critical reasoning skills using a faculty-developed rubric after each simulated experience. Additionally, students' self-efficacy with multiple patient medication administration will be assessed by completion of the General Self-Efficacy (GSE) scale after each individual simulation. Students' mean scores will be compared to determine the impact of eMAR/BCMA technology on undergraduate students' self-efficacy and critical reasoning skills in administering medications to multiple patients in a simulated environment. Last, students will complete a narrative self-reflection describing how the multiple patient medication administration simulations with barcode technology helped to prepare them for clinical experiences with multiple patients.

**Implications for Practice:** Little research has explored how undergraduate nursing students prepare for and critically reason through multiple patient medication administration. Using technology to simulate multiple patient medication administration may help senior nursing students prepare for multiple patient medication administration as well assisting them to assimilate into the role of the registered nurse. The results of this study may also assist nurse educators in developing multiple patient medication administration simulation scenarios using technology.

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## PST2 - Poster Session 2

### E-Learning Modules: Promoting Success for Prenursing Students

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#### Abstract

The nursing shortage and rising attrition rates in nursing schools have serious implications for healthcare. To be successful in nursing courses, students must possess and routinely practice a wide range of self-regulated learning skills. E-learning modules were created to equip pre-nursing students with evidence-based techniques to facilitate learning. Three cohorts consisting of 163 participants completed the E-learning modules. Principles of self-regulated learning guided the design of the five modules that include videos, reading materials, and a quiz. The modules' content covers self-assessment, organization, time management, reading and note taking, successful study skills, and test-taking strategies. Content in the first module guides students to reflect on prior learning, academic factors, personal and environmental factors, cognition, and metacognition. The second module focuses on managing oneself through use of organization, stress, and time management techniques. The goal of the third module is for students to engage in deep processing and metacognition while reading. The fourth module concentrates on successful study skills to induce optimal learning. The fifth module relates to test strategies and post-test reflection. The advantages of self-regulated E-learning modules include: (a) students can complete the modules at a convenient pace and schedule; (b) students can study materials again; and (c) faculty can advise students with specific challenges to review appropriate modules. Nurse educators are obligated to not only teach subject matter, but also assist students to become proficient life-long learners. For example, faculty can pose questions to guide reading, assign manageable reading assignments, and model reading sections of the textbook or a case study utilizing a reading framework. Creating self-regulated E-learning modules for pre-nursing students to address academic skills is only one proactive intervention that can be implemented by nurse educators to improve student retention and success. This poster describes the learning modules, the framework of self-regulated learning, student feedback, and implications for nurse educators.

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## PST2 - Poster Session 2

### Comparisons of Cooperative Teams While Using the Haptic Intravenous Simulator

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#### Abstract

**Purpose:** To evaluate differences among teams of cooperative learners while using a haptic intravenous simulator. Results from this study will provide additional information regarding the generalizability of the use of cooperative learning teams of nursing students who are learning the principles of IV insertion using a haptic intravenous simulator.

**Background:** Nursing students need opportunity to learn, practice and perform safe and effective intravenous insertion. Patients may experience harmful effects such as pain, infiltration, or infection if this complex skill is performed incorrectly. Haptic IV simulators teach the principles of IV insertion and allow students opportunity to practice safe and effective intravenous insertion while developing proficiency. Haptic IV simulators provide tactile feedback including palpation of a vein and resistance during venipuncture. As each student works through the simulation, the haptic IV simulator calculates a performance score (interval data: range 0 -100 points) based on critical and non-critical errors made during the simulation. Cooperative learning, based on social interdependence theory, is an active learning strategy where teams of students work together in order to complete a task or goal. The basic elements of cooperative learning are: positive interdependence, promotive interaction, individual and group accountability, social skills and group processing.

**Methods:** A posttest only experimental research design was used with a convenience sample of 110 nursing students in an accelerated second degree registered nurse (2DRN) program in a southeast Texas university. Nursing students were first randomized into an assignment (A, B or C) which determined who was to attempt their simulation first, second or third and then randomized again into an IV team composed of each of the three different assignment. IV teams determine when to complete their IV simulation. On the day of their IV simulation, each team member was given an envelope with a letter on the outside. This letter represented their sequencing order, A (first), B (second) or C (third) learner. Each envelope contained a unique username/password in order to access the simulator, and procedural information. Procedural information included a description of how each member was to log in and out of the simulator using their unique username and password and sequencing pattern. After reviewing procedural information, the primary investigator presented information on how the team members were to work together until all members completed the task (positive interdependence), they were encouraged to support one another while making suggestions, collaborating or discussing (promotive interactions) how to solve the task. The task was for each team member to earn a passing performance score of an 85 or better on the IV simulator. The PI followed a checklist and script to ensure each team received the same information and that the team members were following the procedural information.

**Results:** Initial performance scores and number of attempts to earn a passing performance score will be analyzed using an ANOVA.

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## PST2 - Poster Session 2

### Critical Thinking and Decision-Making Skills of Nursing Students Basis for Designing Instructional Strategies

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#### Abstract

Recognizing the important role of critical thinking and decision making skills in the field of nursing, these two essential competencies were integrated in nursing education and practice to provide safe, effective, and efficient nursing care to their clients. Nurse educators are facing great challenges in finding out the best way to teach these skills. Reforms and innovations in instructional strategies must address the enhancement of these competencies for better patient outcomes. New and better teaching and learning strategies to equip the students with the highest level of critical thinking and decision making skills will be the focus of this study. This descriptive-correlational research study aimed to describe the level of critical thinking and the type of decision making skills of senior nursing students. The result of the study was the basis for designing instructional strategies in teaching a major nursing course that will enhance the development of critical thinking and decision making skills among senior nursing students.

Participants of the study were 241 Level IV students currently enrolled from the 10 leading colleges and universities of Nursing in Region-4A commonly known as CALABARZON. The schools were selected based on the results of four Nurse Licensure Examinations from November 2014 to June 2016. All Level IV students were included because of the decrease number of nursing enrollees in each of the selected school.

The CEU-Lopez Critical Thinking Test and Nursing Decision Making Instrument were utilized to measure critical thinking and decision making skills respectively. The tools were adopted with the approval of the authors. The five aspects of critical thinking skills such as deduction, credibility, assumptions, induction and meaning and the six stages of critical thinking development were included in the assessment of the level of critical thinking skills. The types of decision making skills were analytical, intuitive or flexible (using both types).

In describing the profile of the nursing students to age, sex and grades in Nursing Care Management (NCM) courses as well as the level of critical thinking skills of nursing students and type of decision making skills, frequency percentage, weighted mean, and standard deviation were utilized. In determining correlations between the NCM grades, level of critical thinking skills and type of decision making Pearson-r was used. In determining differences in the level of critical thinking skills and type of decision making skills of nursing students when grouped according to age and sex, T-test and ANOVA were used.

Majority of the nursing students are 19 years old and female. The average mean grade in all Nursing Care Management (NCM) is satisfactory with a mean grade of 2.31. NCM 100 (Fundamental of Nursing Practice) ranks first and is verbally interpreted as very satisfactory. All other NCM grades are satisfactory.

Among the five aspects of critical thinking skills, nursing students are highest in assumption with a mean score of 6.87 and lowest in induction with a mean score of 3.60. While in the stages of critical thinking development, 34 % of the nursing students are in the practicing stage and 30.7% in the beginning stage of critical thinking skills.

The type of clinical decision making skills commonly used by 54.8% of the nursing students is flexible and 44.8% is analytical.

There is significant **negative low correlation** between NCM 100 grades and deduction, credibility and induction. There is significant **negative moderate correlation** between NCM 100 grades and meaning and there is **positive moderate correlation** between NCM 100 grades and the stages of critical thinking development. There is significant **negative low correlation** between NCM 101 grades and deduction and meaning while there is significant **positive low correlation** between NCM 101 grades and induction and stages of critical thinking development. There is significant **negative low correlation** between NCM 102 grades and induction, meaning, and stages of critical thinking development. There is **significant negative low correlation** between NCM 103 grades and induction and meaning while there is **significant positive low correlation** between NCM 103 grades and stages of critical thinking development. There is **significant negative low correlation** between NCM 104 grades and meaning. There is **significant negative low correlation** between NCM 105 grades and induction and meaning while there is **significant positive low correlation** between NCM 105 grades and the stages of critical thinking development.

There is **significant negative low correlation** between the average NCM grades and deduction, induction, and meaning while there is **significant positive low correlation** between the average NCM grades and the stages of critical thinking development.

There is **no significant difference** in the five aspects of critical thinking skills, stages of critical thinking development, and types of clinical decision making skills of nursing students when grouped according to age. There is **significant difference** in the induction and types of decision making skills of nursing students when grouped according to sex.

It is concluded that critical thinking skills of the nursing students are related in their NCM grades. The types of clinical decision making skills are not related to the NCM grades of nursing students.

The use of more meaningful and highly engaging teaching and learning strategies must focus on improving the grades of students in their NCM courses especially on medical and surgical concepts. Sex as one factor that influences the development of induction and types of decision making skills must be considered in designing instructional strategies in teaching major courses in the nursing program.

It is recommended that the use of teaching and learning strategies in nursing must be chosen appropriately by the teachers to ensure greater impact on critical thinking and decision making skills this may include but not limited to the use of case study, case problem, case report, research case, and case scenario, concept mapping and the use of high fidelity simulation.

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## PST2 - Poster Session 2

### Writing Across the Curriculum (WAC) Educational Strategies to Enhance Graduate/Undergraduate Nursing Comprehension of Pathophysiology

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#### Abstract

**Background.** Although much has been written about the value of the 'flipped classroom' and 'blended learning' as they pertain to active participation in learning activities, much of today's didactic classroom learning in nursing education is deeply rooted in traditional passive techniques (Owsten, York & Murtha, 2013; Thai, De Wever & Valcke, 2017; Zacharis, 2015). The use of consistent writing prompts in the discussion of varied problems and topics can serve to expand the breadth and depth of learning, and are used in many university settings and schools (Baepler, Walker & Driessen, 2014). The concept of 'writing to learn' has been shown to improve understanding and performance in a variety of settings, such as engineering (Goldberg, Rich & Masnick, 2014) and human physiology (Bunker & Schnieder, 2015) to expand content knowledge. Given the time constraints involved in the delivery of complex, content rich education in nursing, passive didactic learning represents a missed opportunity for undergraduate nursing students or graduate doctoral students to engage in scholarly writing as a mechanism to enhance learning.

**Method.** In a university setting, when writing prompts are used in concert with culturally sensitive patient oriented problem scenarios related to complex pathophysiology, nursing students have been shown to more able to integrate application knowledge related to the discipline of nursing. Despite classrooms ranging in size from 28-141 students, randomly assigned student groups of 4-5 were assigned to address four general writing prompts that were further articulated so as to be related to pathophysiology concepts. These prompts are as follows: 1. Identify the relevant information and uncertainties, 2. Explore the interpretations and connections, 3. Prioritize alternatives and implement conclusions, and 4. Integrate, monitor and refine strategies to re-address the problem. Students are assigned to a patient oriented scenario that represents application of classroom related pathophysiology content. These case scenarios also include human factors related to diseases and conditions, such as health care access, concerns about loss of employment, or other social or economic challenges. In the context of small group dynamics and delegation, students self assign to various sections of the assignment for completion, and then review their own writing, as well as their peers in the group in advance of submission of their written work and in-class oral group presentation. Although students are not allowed to present using powerpoint, they will often use other strategies to improve education to the class.

Although the WAC strategy was initiated in graduate pathophysiology, the opportunity for further development was realized at the senior, then junior level undergraduate medical surgical nursing classes. The writing prompts facilitate student writing that engages the human effect of pathophysiology, and necessitates the review of inter-professional literature. Through an exploration of culture, context, resource availability, health policy and health disparities, students consistently report that they are able to retain knowledge in a context that promotes effective nursing practice. Group presentation of material provides an opportunity to engage an additional touch point of knowledge just prior to unit or comprehensive exams.

**Outcomes.** Faculty have identified that the students engaged quickly and deeply within the Writing across curriculum group assignments. Student group presentations consistently reflect high levels of scholarship, depth of writing and innovative connections of the core pathophysiology content to societal concerns, such as access to healthcare, processes involved in treatment and policy related to available treatment. Students report in course evaluations that the use of the WAC strategy has deepened their knowledge of course content while providing the opportunity for reflection and attentiveness to the humanistic and holistic nature of problems associated with various diseases and conditions. Through active and engaged learning, students report the ability to synthesize and construct new knowledge, while concurrently reinforcing course content during the group presentations in preparation for examinations and patient care. Regardless of level of student, the presentations have reflected scholarly investment, and have been of consistently high quality. Two faculty members are assigned to grade both written work and oral presentations using a developed rubric that was shared with students at time of assignment.

**Conclusion.** Multiple touch points of content rich information fosters a deep understanding of course content. Use of Writing across the Curriculum (WAC) strategies have been shown to enhance learning in several university settings. Use of WAC in schools of nursing offers an ability to apply complex and comprehensive pathophysiology knowledge to patient oriented problems faced by nurses in a variety of clinical settings and across multiple levels of undergraduate and graduate nursing education.

**Next steps.** 1. Evaluate the relationship of the WAC strategy in undergraduate and graduate education to effective scholarly writing within comprehensive capstone projects, 2. Evaluate the effect of WAC strategy on performance in licensure exams such as the NCLEX and nurse practitioner examinations.

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## PST2 - Poster Session 2

### The Effects of Early Adoption of Academic Electronic Health Records System: A Pilot Outcome Study

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#### Abstract

The Electronic Health Records System (EHRs) provides a great set of functionalities as a form of health information technology (Fareed, Bazzoli, Farnsworth Mick, & Harless, 2015). Nearly all reported hospitals (97%) possessed a certified EHR technology in 2014 (ONC, 2015). The wide adoption of electronic health records systems has led the Institute of Medicine (IOM) to emphasize the use of informatics as a core competency required of all health care professions (Institute of Medicine [IOM], 2010). However, the nursing profession has been slow to incorporate information technology into formal nursing education and practice (Meyer, Stenberger, & Toscos, 2011; Pobocik, 2014; The TIGER Initiative).

Several studies show that nursing students are not comfortable using healthcare technology, and nurses in practice are not comfortable using EHRs (Fetter, 2009; Kelley, Brandon, & Docherty, 2011). About three quarters of nurses reported spending at least 50% of their time using the EHRs, which means less time for patient care (Johnson, et al., 2008). Another recent study reported that bedside nurses spend 4 hours per day documenting using EHRs (Penoyer, et al., 2014). The high number of hours spent using EHRs may be associated with non-user-friendly systems or nurses' lack of competence with the electronic systems. It is imperative that the nursing students are able to use EHRs in their education so that they will be more prepared to enter the profession with strong technology skills for nursing documentation (Meyer, et al., 2011; Chung & Cho, 2017).

In 2016, the academic EHRs was adopted to Accelerated bachelor of Science (ABS) Program (N=9) at one university in the Eastern United States. In this study, the intentions of this study are two folds: (1) to examine the faculty's and students' perceptions of introducing academic EHRs system for teaching/learning nursing documentation and (2) to assess the outcomes of academic EHRs on changes in nursing students' readiness of nursing documentation outcomes.

With this pilot study, a quantitative research design with supportive qualitative research will be used: (1) A qualitative descriptive research design will be applied to gather the information on both faculty and students' perceptions of academic EHRs in terms of nursing documentation and (2) A two-group quasi-experimental pre/post design will be used to assess changes in nursing students' readiness of nursing documentation. For qualitative data, a purposive sample of faculty (5-7 nursing faculty) will be invited for the interview. The inclusion criteria for faculty are to teach undergraduate nursing courses in Accelerated bachelor of Science (ABS) Program. All ABS students (N=9) will invited for the focus group discussion. For quantitative data, a convenience sample of BSN nursing students (including ABS nursing students) at one university in the Eastern United States will be invited. Student participants for quantitative data will be evaluated their readiness of the nursing documentation about patients using Docucare. "Pre-worksheet" will be given to students. Using Docucare, students will be asked to review the patient information. Pre-worksheet has two parts: (1) Roots and (2) Impression: (1) Roots: background & physiology, subjective findings, objective findings, recent lab results, and medications, and (2) Impression: A: What are the issues with this patient and P: What are your priorities when you enter the room, what your plan is. Students will conceptualize the patient information through the Docucare and students will be required to fill out the Pre-worksheet. Two evaluating nursing faculty will independently evaluate the Pre-worksheet for readiness of the nursing documentation and critical thinking through Docucare system.

For qualitative data, all interviews will be transcribed verbatim for analysis. The two researchers will be independently coded. The transcribed text will be carefully read and thematic segments will be identified. Data segments will be grouped based on commonalities. For quantitative data, changes in the accuracy of the students' nursing documentation and communication ability will be assessed by comparing two groups. Specifically, the regression discontinuity method will be used, in order to overcome the statistical problem of endogeneity of an explanatory variable in observational data.

These findings will be very helpful to prepare students for the future of health information technology. Paper-based instruction may not be sufficient for teaching electronic nursing documentation. Faculty and nursing students should be familiar with EHRs, but also to teach/learn how to use academic EHRs meaningfully. Meaningful adoption of academic electronic health record systems will help in building the undergraduate nursing students' competence in nursing documentation with electronic health record systems and improve patient care.

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## PST2 - Poster Session 2

### Improving Clinical Competence and Skills Acquisition by Student Nurses: Bridging the Preparation to Practice Gap

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#### Abstract

**Objective:** As the need for more nurses increases due to healthcare reform, nursing schools must train and graduate students to avoid the long term possibility of a nursing shortage. Changes in nursing education and training can help novice nurses (newly graduated with less than a year of clinical experience) understand and mitigate error rates (Hickerson, Taylor, & Terhaar, 2016). The implication is to improve patient care and reduce medical errors by improving the preparation of nursing students for their role in the clinical setting by formalizing the process of skills acquisition and to foster critical thinking.

Innovative simulation technology can be used to assess nursing students' competence and confidence in clinical skill acquisition and documentation of those skills on a skills checklist. Feedback on student performance is an important aspect of deliberate practice and facilitates the development of clinical practice habits. Nursing students who are exposed to a deliberate practice program in a simulation laboratory will be competent and confident in safely performing those skills in the patient care setting.

**Background:** Today's highly demanding healthcare environment requires effective use of critical thinking and motor skills in complex care situations to achieve optimum patient outcomes. A major practice implication is to advocate for a culture of patient safety as the third leading cause of death in hospitals is medical errors. Bridging the gap between nursing student and graduated nurse requires faculty to foster clinical competence and confidence to promote positive patient outcomes and avoid medical error. One method of evaluation that nursing faculty can use to assess student competency is simulation technology (Willhaus, Burlison, Palaganas, & Jeffries, 2014).

Baccalaureate nursing programs across the country have benchmarks established to ensure that programs are consistent in providing high-quality education and clinical experiences sufficient to produce competent and safe professional nurses. Novice nurses are involved in medical errors with poor patient outcomes. Patient falls, medication errors, and near-miss situations with adverse outcomes were identified as the primary types of errors committed by novice nurses (Hickerson et al., 2016). The function of nursing education is to develop knowledgeable nurses capable of providing safe, highly competent, and skilled patient care.

**Significance:** The third leading cause of death in the United States (U.S.) is preventable medical errors in hospitals with heart disease and cancer occupying the first and second positions respectively (Perez, 2016). In 1999, the Institute of Medicine (IOM) published *To Err is Human: Building a Safer Health System* that alerted healthcare professionals to the true scope of medical errors and quality problems. Since the IOM report on quality and medical errors, healthcare providers, the public, and federal and state governments are seeking answers as to why medical errors are so prevalent (Nickitas, Middaugh, & Aries, 2016). The impact of medical mistakes on segments of the U.S. patient population according to the Department of Health and Human Services report in 2010 estimated that 180,000 Medicare patients die every year from preventable adverse events that occur in hospitals (National Quality Forum, 2015).

A new paradigm in health care is focusing on clinical education to improve safe conditions with positive patient outcomes (Failla & McCauley, 2014). According to Clapper and Kardong-Edgren (2012) a national survey reported clinical faculty spends 69% of their valuable work time observing nursing students demonstrating clinical nursing skills. Nurse educators need to prepare students to enter the complex healthcare environment with the skills and knowledge required to provide safe patient care (Sparacino, 2015). Experienced nurse educators know that students who have not had enough practice experience in the simulation laboratory or real clinical setting will not be able to perform a specific skill competently and proficiently every time (Clapper & Kardong-Edgren, 2012). In the seminal work by Benner, Sutphen, Leonard and Day (2010) they assert that transformation of nursing education is necessary in response to the changing needs of the patient population and complexities of nursing practice. Novice nurses must enter the profession qualified to provide safe and effective care applying nursing knowledge from natural physical and biological sciences as well as the social sciences and humanities.

**Methods:** The project framework will be a quality improvement pretest-posttest design using the Clinical Competency Questionnaire, educational sessions, faculty demonstrations of clinical skills, repeat demonstrations by nursing students using deliberate practice, and documentation of student demonstrations of skills on a skills checklist.

**Participants:** First semester junior baccalaureate nursing students.

**Results:** The project will result in improved student self-report of competence and confidence in clinical skill acquisition via deliberate practice and documentation of those skills on a checklist.

**Discussion:** The concept of deliberate practice is the process of practicing specific skills repetitively with immediate feedback resulting in improved skill performance in a controlled setting (Motola, Devine, Chung, Sullivan & Issenberg, 2013). Clinical skill acquisition requires nursing students to spend time in the simulation laboratory to practice clinical skills repetitively and receive immediate feedback from faculty to reflect upon (Oermann, 2011). Deliberate practice is a focused approach aimed at a well-defined goal not just mindless repetition of a task (Duvivier et al., 2011). Duvivier et al. (2011) as well as Oermann et al. (2011) agree that the practical implementations of deliberate practice principles are based on; repetitive performance of intended cognitive or psychomotor skills, rigorous skills assessment, specific feedback and improved skills performance. Deliberate practice is not only for novices, nor does it require the examiner to have more technical skills, but are keen observers and skilled at providing immediate feedback (Motola et al., 2013). Findings from this project will support the ongoing measurement of nursing students' clinical skills and their perceived competence and confidence in those skills. The project will demonstrate the use of simulation technology as an effective means of improving clinical competency and confidence, which will ultimately improve patient outcomes.

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## PST2 - Poster Session 2

### View and Do Simulation Method: Small Group Learning Experiences for Large Cohort RN Residencies

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#### Abstract

**Background:** Baptist Health South Florida has markedly increased the number of nurses it on-boards into its American Nurses Credentialing Center (ANCC), accredited new graduate and transitional residency program. This influx of nurses has created challenges for the Patient Care Simulation Lab resources including space, time, and faculty. The “View and Do” method of simulation is an innovative educational tool providing small group experiences for large groups of learners. It is intended to increase the number of simulated experiences, while maintaining efficiency and effectiveness of the learning experience.

**Purpose:** Traditionally, simulation is conducted with small groups that has proven to be time consuming, labor intensive, and cost prohibitive. The “View” and “Do” method of simulation is an innovative educational tool providing small group experiences for large groups of learners. It is intended to increase the number of simulated experiences, while maintaining efficiency and effectiveness of the learning experience. The purpose of this study was to evaluate differences in the satisfaction and self-confidence of large cohorts of resident nurses participating as either “viewers” or “doers” during simulated learning experiences.

**Method:** A cross-sectional, observational study design was utilized with a convenience sample of registered nurses hired into the Baptist Health South Florida New Graduate or Transitional Residency program with a total of 63 participants. The Student Satisfaction and Self-Confidence in Learning instrument developed by the National League for Nursing, consisting of 13 questions using a five-point Likert scale (1= Strongly Disagree, 5= Strongly agree), was utilized to measure the satisfaction and self-confidence in learning of the participants.

**Results:** A paired-samples t-test was conducted to evaluate the impact of “view” and “do” on the participants Satisfaction and Self-Confidence in learning. There was no statistically significant difference in Satisfaction and Self-Confidence in learning total scores between “View” (M = 57.46, SD = 10.3) and “Do” (M = 57.67, SD = 7.4),  $t(62) = -.199, p = .83$

**Conclusion:** The results are comparable to the original “View and Do” study conducted by Clark and Hammond (2015) indicating that this method of simulation is a viable education tool for providing simulation experiences to large groups of nurse resident’s. The “View” and “Do” simulation method will increase opportunities for learning and practicing in a controlled environment, while preparing residents for a safe transition to practice.

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## PST2 - Poster Session 2

### An Assessment of Errors and Near-Misses From Prelicensure Nursing Students

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#### Abstract

**Background:** Approximately one-half of new nurses with less than one year of experience who were involved in adverse patient events identified that their formal education preparation was a causal factor in their error (Saintsing, Gibson & Pennington, 2011). An examination of quality and safety measures of a current hospital based associate degree nursing (ADN) educational program provided data regarding errors committed by prelicensure students. Tracking and analysis of frequency and type of student clinical errors provided for identification of similarities and an opportunity for system evaluation and improvements.

**Objectives:** To identify the number, types and categories of Student Opportunity for Improvement (SOFI) reports generated by a hospital based ADN program over a four-year period from July 30<sup>th</sup> 2012 through July 30<sup>th</sup> 2016 and to compare the reports by academic term, the student's previous healthcare experience, and student age.

**Methods:** A twenty-four month retrospective comparative design was utilized, in a private, non-profit 2-year ADN program in the northeastern region of the United States with an enrollment of approximately 300 students. The target population was all enrolled prelicensure nursing students between the ages of 18 and 60 who have had a SOFI report filed. A convenience sample was utilized. Students who were dismissed from the program due to either academic or clinical failures but who have had at least one SOFI filed were included in the study population. The number and types of SOFI reports generated with the previously discussed demographic variables were measured.

**Results:** A total of 266 SOFI forms were examined. One-hundred five SOFI reports were associated with the first two semesters of the program while 161 SOFI reports were associated with semesters 3 and 4. Students that had prior healthcare experience completed 25% of the SOFI forms, and 64.3% of the SOFI forms were associated with students 30 years of age or older. Fifty-one SOFI reports were constructed after an Evening/Weekend curricular change as compared to 30 SOFI reports prior to the change. All differences were statistically significant at an alpha level of 0.05.

**Conclusions:** The challenge associated with nursing education is building an educational foundation and the promotion of an appropriate culture wherein students can learn from their mistakes and near-misses while the errors/near-misses are caught before they reach the patient. A broader and increased knowledge base regarding the clinical errors and near-misses that are conducted by pre-licensure RN students can only assist faculty with regard to the more thorough preparation of these future providers.

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## PST2 - Poster Session 2

### Impact of Hybrid Teaching on Prelicensure Baccalaureate Nursing Students

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#### Abstract

**Introduction:** The demand for professional baccalaureate-educated nurses (BSN) is increasing (“Employment of New Nurse Graduates,” 2016). What prelicensure nursing program characteristics are associated with students passing the National Council Licensure Examination (NCLEX) (“NCSBN NCLEX & Other Exams,” 2017)? Is there some combination of student characteristics or clinical and didactic outcomes that will predict which students will successfully pass the NCLEX? Do teaching methods or students’ use of technology influence NCLEX scores? A previous Sentara College of Health Science’s project identified that student characteristics are important in understanding why BSN students succeed (Banks, C et al., 2013). Further research emphasizes the need for RNs within our own health system has increased from 40% to 80% in the past 4 years (Downs & Taylor, 2016).

The initial aims of this study were threefold: (1) to test whether there were associations between student characteristics and NCLEX pass/fail rates; (2) to test whether there was an association between academic performance in didactic and clinical courses; and (3) to test whether scores in both didactic and clinical courses were significant predictors of NCLEX success. The nursing program adopted hybrid teaching and classroom technology after data collection began. High fidelity clinical simulations were also developed at this time. These changes also may have affected our findings.

**Methods:** This was a retrospective study of data collected within the nursing program at Sentara College of Health Sciences between Fall 2012 and Spring 2015. Data was examined for the 253 nursing students who were enrolled and graduated during this time period. Student characteristics (race, age, gender, marital status, military experience, VA eligibility, and scholarship), as well as clinical and didactic course performance were examined. Student data was protected as required by the Family Educational Rights and Privacy Act.

**Results:** Aim 1: Chi-square tests were performed to test differences in NCLEX. There were no statistically significant differences in NCLEX pass/fail rates based on student characteristics (race, age, gender, marital status, military experience, VA eligible, and scholarship).

Aim 2: A bivariate correlation showed a statistically significant positive association between average didactic and clinical scores. Specifically, higher scores in didactic classes were associated with higher scores in clinical classes,  $r = .545$ ,  $p < .001$ ,  $R^2 = .297$ .

Aim 3: Binary logistic regression was used to test hypotheses that scores in both didactic and clinical courses were significant predictors of NCLEX success. When included separately in the model, the average didactic variable was a significant predictor of NCLEX pass/fail (OR = 1.21, 95% CI [1.03 1.43], with 6% NCLEX variance explained); while the average clinical variable was not a significant predictor of NCLEX pass/fail (OR = 1.10, 95% CI [.88 1.38], with less than 1% NCLEX variance explained).

Post-hoc exploratory analyses of each course individually: Higher final numeric grade in the course, NUR 410 Adult Nursing II was statistically significantly associated with greater likelihood of passing the NCLEX, OR = 1.36, 95% CI [1.09 1.70]. Finally, although the course, NUR 315 Fundamentals of Nursing Practice final numeric grades were not statistically significantly associated with NCLEX pass/fail rate, performance in NUR 315 correlated to 9.4% of NCLEX success, which may be relevant.

**Conclusion:** What accounted for the differences in NUR 410 Adult Nursing II from other nursing courses and why did it correlate to NCLEX success? To answer this question, a comparison was made of our first-attempt NCLEX pass rates to state and national rates for the time period of 2012 to 2015. In 2012, our first-time pass rate was 96.3% (Virginia Board of Nursing, 2017) compared with 90.4% for the state of Virginia and 90.34% nationally (National Council of State Boards of Nursing, 2015). In 2013, there were many changes to the NCLEX examination and our rate dropped to 83% (Virginia Board of Nursing, 2017), compared to 83.1% for state and 83.04% nationally (National Council of State Boards of Nursing, 2015). As a result, many changes were made in our classrooms. The School of Nursing adopted hybrid teaching. Hybrid teaching mixes a variety of teaching techniques, learning styles and delivery methods (Linder, K, 2017). In our nursing program, didactic content is delivered online via lecture capture. The didactic content is reviewed and applied during face-to-face classroom time. Depending on the course, up to 49% of the didactic material can be delivered online. Additionally, classroom technology (lecture capture videos, Assessment Technology Institute modules, One-Link learning modules, games, polling, blogs, discussion boards, webcams and smartphones for recording student videos, computer-based concept mapping, Quizlet, WebQuest and voice-over PowerPoint) was also adopted. High fidelity simulations were developed and added to clinical courses. These actions seem to have delivered results because in 2014, our pass rate was 93.33% (Virginia Board of Nursing, 2017), compared to 82.9% for the state and 81.78% for the nation (National Council of State Boards of Nursing, 2015). In 2015, our pass rate was 96.9% (Virginia Board of Nursing, 2017) compared to 87% for the state of Virginia and 84.53% nationally (National Council of State Boards of Nursing, 2016). These results confirmed our pass rates were improving.

When examining the results of our courses, Nursing Fundamentals and Adult Nursing II correlated with student success on NCLEX. Nursing Fundamentals reinforces lecture capture concepts with classroom activities, ATI modules and Sentara Healthcare online One-Link modules. Students learn the nursing process in this course and practice application of this process. Adult Nursing II reinforces lecture capture videos with multiple case studies requiring critical thinking and application during the face-to-face classroom time. This is supported by NCLEX-style questions and use of ATI modules which reinforces the learning. In conclusion, while grades in Adult Nursing II appear to correlate to passing NCLEX, the changes in teaching methods and increased use of technology may have also influenced these positive results.

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## PST2 - Poster Session 2

### Using Virtual Patient Simulation in Substitution of Traditional Clinical Hours in Undergraduate Nursing

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#### Abstract

**Introduction:** In recent years, undergraduate nursing education has been facing numerous challenges as the demand for nurses continues to increase. The shortage of nursing faculty in addition to increased student enrollment has put a greater burden on the limited resources available in most programs (Cobbett & Snelgrove-Clarke, 2016; Foronda, Godsall, & Trybulski, 2013; Foronda & Bauman, 2014; Laure, Pepin, & Allard, 2015). There is also a shortage of the clinical placements necessary to provide students with the education and experience necessary to become a competent and autonomous professional nurse (Cobbett & Snelgrove-Clarke, 2016; Foronda et al., 2013, 2014; Khalaila, 2014, Laure et al., 2015). Given these persistent challenges, many nursing programs have started to substitute students' traditional hours with some form of simulation. The National Council for State Boards of Nursing Simulation Study provided evidence that substituting high-quality simulation experiences for traditional clinical hours results in comparable educational outcomes in undergraduate nursing clinical courses (Hayden, Smiley, Alexander, Kardong-Edgren, & Jeffries, 2014).

In nursing education, simulation is usually defined as the most accurate possible representation of a care situation and can be categorized relative to its degree of clinical fidelity: high, intermediate, or low (Laure et al., 2015). Virtual patient simulations are considered to be high-fidelity simulations because they are "extremely realistic and provide a high level of interactivity and realism for the learner" (Meakim, Boese, & Decker, 2013, p.6). Virtual patient simulations have been found to be comparable or superior to other high-fidelity traditional simulation methods due to a variety of reasons. In an integrative review of 12 studies published between 2008 and 2015, Duff, Miller, and Bruce (2016) found that virtual patients and simulated scenarios were comparable or superior to traditional simulation methods for teaching diagnostic reasoning and assessment skills in terms of increased student learning, satisfaction, and engagement.

The purpose of this study was to investigate how pre- (BSN) and post-licensure (RN-BSN) nursing faculty are using virtual patient simulations to replace traditional clinical hours, and to describe the role that various integration use cases may play in improving the preparation of students as more nursing schools decide to adopt this technology into their curriculum.

**Methods: Participants.** Of the entire population of faculty using the Health Assessment Digital Clinical Experience™ (DCE) during the 2017 spring and summer semesters, 185 faculty responded to an online evaluation survey administered at the end of their health assessment course. The final sample for the quantitative portion of the study were 78 undergraduate faculty (47 BSN and 31 RN-BSN) in 56 nursing schools across the United States who indicated use of the DCE in lieu of traditional clinical hours on the survey. In addition, follow-up semi-structured interviews were conducted with 10 faculty from that group (5 BSN and 5 RN-BSN).

**Materials.** The DCE is an online, asynchronous virtual patient clinical simulation that provides an immersive experience designed to improve students' assessment skills and clinical reasoning through the examination of virtual patients. Across different assignments, students can practice taking a detailed health history, perform physical assessments in single-system exams, and conduct focused exams to rule out causes of a virtual patient's chief complaint. After each assignment, students complete post-exam activities where they can apply content knowledge as well as self-reflect on their performance. When students submit their assignment to their instructor, they receive a score and immediate feedback on several aspects of their performance, including subjective data collection, objective data collection, and on their ability to identify opportunities to engage in therapeutic communication. These performance assessment instruments have been previously validated for nursing accuracy and learning value by several subject-matter experts.

**Measures.** The researchers developed a 32-item survey to assess how undergraduate faculty used the DCE in lieu of traditional clinical hours in their health assessment courses. Specifically, the survey explored different topics ranging from how they used each of the assignments in class (e.g., as part of the lecture led by instructor or as classroom group activity led by students) to how they used it to assess student performance (i.e., open practice, formative pass/fail or lab pass, summative with letter grade, or test). The survey included two closed-ended questions directed to the use of the DCE as a replacement of traditional clinical hours: "Did the time students spent in the DCE replaced any portion of their required traditional clinical hours?" (response categories: Yes/No), and "What portion of your courses required clinical hours were met by the DCE?" (response categories: 10% or less, between 11% and 25%, between 26% and 50%, more than 50%). The survey also included included demographics and teaching background questions (i.e., gender, race/ethnicity, years of teaching experience, length of DCE use, course modality, and number of students taught). Semi-structured interviews included open-ended questions about how faculty were using the DCE to replace traditional clinical hours in their courses: "How does your institution fulfill the remainder of the clinical hours requirement?", "What drove you to the decision to use the DCE (or simulation in general) to satisfy clinical hours requirements?", and "What reasons would an institution have to not use the DCE (or simulation in general) to fulfill clinical hours requirements?".

**Procedure.** Each participating faculty received a link to the online survey instruments shortly after they course ended. The researchers directly reached out to those interested in participating in the semi-structured interviews.

**Analysis.** The data included in this study employed both quantitative and qualitative elements in a mixed-model design (Johnson & Onwuegbuzie, 2004). We used descriptive statistics and chi-square analysis to compare BSN and RN-BSN faculty responses on the survey. Responses to the open-ended interview questions were first coded for distinct concepts and themes in each faculty group separately. Then, responses were counted within each of the identified themes to obtain frequencies of occurrence.

**Results: Quantitative results.** The majority of the participating BSN faculty taught health assessment face-to-face (88%), while the majority of the RN-BSN faculty taught health assessment online (69%). Compared to BSN faculty, RN-BSN faculty who teach online are significantly more likely to spend replace more hours of traditional clinical time with the DCE. RN-BSN faculty are also more likely to use the DCE in a more formative manner, while BSN faculty in a more summative manner.

**Qualitative results.** The main themes emerging among responses from BSN faculty were: 1) DCE helps maximize resources in light of shortage of sites and personnel, 2) DCE provides a safe practice environment for students to practice, and 3) DCE provides meaningful learning outcomes compared to traditional clinical hours. The main themes emerging among responses from RN-BSN faculty were: 1) DCE replaces minimum interaction hours with a preceptor, 2) DCE provides meaningful learning outcomes compared to traditional clinical hours, and 3) DCE allows students to practice skills and run emergency scenarios.

**Conclusion and implications for nurse educators:** In light of persistent shortages of clinical placements and faculty, undergraduate nursing programs are in an increasing need of a variety of simulation modalities to achieve their learning objectives assessment outcomes. Virtual patient simulations present a flexible and standardized option for faculty when it comes to replace traditional clinical hours. This study found that faculty teaching both learning populations find that virtual patient simulations provide meaningful learning outcomes compared to traditional clinical hours. This study also found that BSN and RN-BSN faculty may have different needs for replacing traditional clinical hours with virtual patient simulations (safe practice environment vs. replacing minimum interaction with preceptors), and that RN-BSN faculty teaching online health assessment courses are more likely to use virtual patient simulation in lieu of clinical hours in a formative manner. The findings of this study can be used to add additional evidence to case for using virtual patients in nursing education, but more importantly, it can be used to help faculty better frame the design, use, and value of virtual patients for their different student populations.

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## PST2 - Poster Session 2

### Post-Simulation Reflections: A Qualitative Review After Implementation of Video Debriefing Changes

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#### Abstract

**Background:** Simulation is being used in nursing education to substitute for traditional clinical experiences (Curl, Smith, Chisholm, McGee, & Das, 2016). The best use of video as an adjunct to debriefing remains a question (Cheng et al., 2016; Grant, Dawkins, Molhook, Keltner, & Vance, 2014; Reed, Andrews, & Ravert, 2013; Rossignol, 2017). Reflection is regarded as formal constituent of the learning process (Cheng, Eppich, Grant, Sherbino, Zendejas, & Cook, 2014; Forneris et al., 2015; Kolb & Kolb, 2005; Schön, 1987). A four-hour patient deterioration simulation has evolved over several years at a small mid-western College of Nursing. Two faculty, with several years of experience facilitating simulations, alternated facilitation of the simulation with second semester juniors. Students came in pairs having prior access to readings and a patient chart. Prebriefing and debriefing were loosely scripted. Students would observe as the peer cared for a high fidelity simulation patient. One student started with the patient and after completing a psychomotor skill related to a deterioration, reported off to the other student. After report, the first student observes while the patient undergoes further deterioration and another psychomotor skill. Debriefing included some video review of student experience. This generally consisted of fast forwarding through the experience with occasional focal points and then concentrating on the two skills embedded in the simulation. As part of the experience, students were required to write a reflection paper answering four questions within 48 hours.

Until recently, the intentional implementation of the INACSL Standards of Best Practice: SimulationSM was neglected at this institution. One of the faculty is newly certified as a Healthcare Simulation educator and the patient deterioration simulation has been revised to reflect the INACSL Standards of Best Practice: Simulation. The certified faculty member is now the only facilitator of the simulation. Because the adjunct use of video during debriefing is still uncertain, it has been removed from the debriefing process. However, the first cohort in the revised simulation will be provided the opportunity to review some video of their experience before writing a reflection paper answering the same four questions.

**Purpose:** To explore nursing students' perceptions of reviewing video of themselves in a simulated experience.

**Design:** A qualitative descriptive research approach will be applied.

**Method:** A pilot study will randomize the new cohort of students into two groups. After the debriefing session, students will have 2 hours to review their video and 48 hours to write their reflection. One group will be given access to their entire simulation experience and the other group will be given access to the psychomotor skill embedded in the simulation. The reflective documentation written after the patient deterioration simulation will be subjected to qualitative content analysis for salient themes.

**Significance:** The pilot study will begin a larger study of video debriefing methods. There is a small window of opportunity to utilize data already gathered to examine student responses unstructured by current tools. This may provide some insight to further inform the larger study.

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## PST2 - Poster Session 2

### The Global Nursing Education Study in an Online Graduate Course: Phase I

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#### Abstract

The purpose of the Global Nursing Education Study is to develop an increased global perspective about nursing education with online Master of Science in Nursing (MSN) degree students in the Nursing Education (NE) concentration using virtual video-recorded interviews with nurses or nursing faculty members from other countries. Phase I involved the creation of the videos. The researchers will implement phase II in 2018 and will compare the effects of the interviews to traditional readings among students in our MSN-NE concentration at one southeastern public university in the United States. We anticipate that one of the long-term effects of the study will be that our graduates will develop a more global perspective that will be translated into their teaching of nursing students, staff, patients, and families from other countries and cultures.

The increasing global population of the United States means that nurses need to be able to provide appropriate care for patients and families from all areas of the world. Additionally, the increasing global changes in health have the potential to affect persons who reside anywhere in the world. MSN-NE students are registered nurses (RN) who have returned to graduate school via distance/online technology to learn how to become nurse educators. Upon graduation, our students are often employed as nurse educators in community colleges, universities, or as educators in hospitals or other community settings where they teach students, patients and families, or staff members. Having an increased global perspective will enable our students to be better prepared to teach these learners.

Included within the 2011 American Association of Colleges of Nursing (AACN) "Essentials of Master's Education in Nursing" document was the statement that an essential core outcome was to "Apply advanced knowledge of the effects of global environmental, individual and population characteristics to the design, implementation, and evaluation of care" (p.28). To meet this standard, one of the strategies in our NE courses was to assign students to complete the educational modules at the "Think Cultural Health" web page (Office of Minority Health, 2012). While this was helpful to our students, we felt that a different strategy that more closely aligned global perspectives with our NE course objectives was needed. Identifying strategies to teach global nursing across all curricula is important (Wilson et al., 2012). Wilson et al. (2012) identified essential global health competencies for undergraduate nursing students and stated that more work was needed to clarify competencies at the graduate level. In a systematic review of studies of strategies to teach a global perspective, Gallagher and Polanin (2015) found only four of the 25 studies included graduate students. None of the studies were MSN students in an NE concentration in an online environment. The most common teaching strategies found by Gallagher and Polanin (2015) were lecture, simulation, role play, and immersion experiences. Dawson, Gakumo, Phillips and Wilson (2016) stated the most common teaching strategies were service learning, immersion courses, stand-alone and integrated courses, technology, or other partnerships. Strickland, Adamson, McInally, Titanen, and Metcalfe (2013) more fully described their teaching strategy for a pilot that included undergraduate and graduate students in the online environment as an alternative to an overseas immersion experience. Students were from two European countries and a university in the United States. The students collaborated online to compare the health, social perspectives, and nursing roles in other countries. The researchers found that the students were satisfied with the online platform and their learning increased. In the online platform, more students were able to engage with their international colleagues than through an immersion strategy.

The theoretical basis for the study is the theory of cultural care and sunrise model by Leininger (1995). We will report on phase I of the study and the lessons we learned. Some of the lessons learned included finding an easy to use virtual software platform and creating interview questions based on the theoretical framework and the NE course objectives. Nurses and nursing faculty from Nigeria, England, Finland, Canada, Philippines, and Puerto Rico were interviewed separately by the researchers and asked about their experiences as nursing faculty members, or if not faculty, a reflection from when they were nursing students in their native country. The following questions were asked:

- How is or was your undergraduate nursing curriculum organized and what clinical experiences do your students have or did you have?
- What do you think are the major health and socio-political factors that impact or impacted undergraduate nursing education in your native country?
- What do you foresee for the future in nursing education in your native country?
- How does one become a nursing faculty member or educator in your native country? Are there other roles for nurse educators, such as in hospitals or communities? Is there a particular degree or curriculum that faculty or nurse educators must have?
- Tell us about your class of undergraduate nursing students related to background, culture, etc.
- Tell us about the types of patients nursing students care for or should be prepared to care for upon graduation in your native country.
- How does or did the background of your classmates, students, or patients impact your teaching or learning? Has it changed? Do you foresee there will be changes and if so, how?
- How do you teach or did you learn about the culture of patients and their families?
- What are the ways that you evaluate students' learning or that you were evaluated as a nursing student? Do you think this will change and if so, how?

- How do or was the effectiveness of your native nursing program assessed? Is or was this dictated by external and/or internal forces? Is there an accreditation agency or agencies for nursing education programs or universities in your native country?

We will include an overview of phase II in the poster session, which includes how testing of the strategy will be accomplished after Institutional Review Board approval. The research aims of this quasi-experimental study will be that MSN-NE concentration students in the treatment group will be able to better:

- Describe the health and socio-political factors that impact nursing education in other countries;
- Assess the impact of having multi-cultural learners in nursing courses;
- Explore the teaching and evaluation strategies used in nursing education in other countries; and
- Appreciate the changes in nursing education affected by globalization.

Phase II of the study will include treatment group and non-treatment groups in the online course entitled, *Education Concepts, Theories, and Strategies in Nursing*. We expect to have a total of 20-25 students in each of the treatment or non-treatment groups. Students will be randomly assigned to either treatment or non-treatment group, with 6-8 students in one of several small group discussions. Students will be asked to compare the experiences of educators from either viewing the interviews (treatment) or their readings (non-treatment) and discuss them. Prior to implementation of the activity, the students will receive an anonymous online survey to rate their agreement with the following four statements below (1 Strongly Disagree to 5 Strongly Agree):

1. I can describe the health and socio-political factors that impact nursing education in other countries.
2. I can assess the impact of having multi-cultural learners in nursing courses.
3. I know teaching and evaluation strategies used in nursing education in other countries.
4. I appreciate the changes in nursing education affected by globalization.

After implementation of the treatment and non-treatment, students will be asked again to rate their agreement to the above statements and will also be asked the following open-ended questions in the online survey:

1. What was the most surprising thing that you learned? (Please elaborate)
2. Please fully describe how you see yourself using the information you learned as a nurse educator\$
3. Do you recommend the continuation of this activity?

(Choose from yes, no, undecided.) (Please explain your answer.)

4. What changes do you recommend in the activity? (Please explain as thoroughly as possible)

Descriptive statistical analysis will be performed comparing responses of the treatment group to the non-treatment group to each of the individual questions using measures of central tendency. T-tests will be conducted to analyze for differences in the ratings of students between the treatment and non-treatment groups after the implementation of the activities and between the pre and post surveys. Content analysis will be used for the open-ended responses.

This is a study of an online strategy to meet the guidelines of the AACN for graduate students and to increase the global perspectives of MSN-NE students. It involves 1) phase I - the creation of virtual video-recorded interviews with nurses and nursing faculty members from other countries, and 2) phase II - the testing of interviews (treatment) to readings (non-treatment). Rather than the ideal, but unrealistic ability to provide an immersion experience for all NE students, we are confident that this online strategy, in which all NE students can participate, will demonstrate merit in increasing their global perspectives.

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## PST2 - Poster Session 2

### The Effects of Competency on the Nursing Careers of Novice Nurses

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#### Abstract

**Aim:** This study aimed to clarify the effects that competency has on the nursing careers of novice nurses.

**Background:** Research related to competency is growing in the fields of education, psychology, humanities and social sciences, and curricula with competency at their core are being implemented in many countries. Competency is also indispensable in the field of nursing (Axley, 2008). Various studies have examined the concept of competency and methods for evaluating it (Cowan et al., 2005; Fullerton et al., 2011; Hosoda et al., 2011; Scott Tilley, 2008). Benner et al. (2009) also indicated that the knowledge of nursing practice is relational and contextual, and the skill of involvement therefore cannot be acquired without experiential learning. It takes three years for novice nurses to acquire the skills required. Currently, there are workplace adaptation problems, which result in low job retention and attempts by personnel to independently take action for the sake of their own nursing careers; however, they are unsure as to which action to take. Therefore, understanding the impact that novice nurses' competency has on their nursing career is considered insightful for supporting nursing career development for them.

**Methods:** A self-administered questionnaire was distributed to 1,016 novice nurses (registered nurses with less than 3 years' experience) at 60 hospitals, each with 500 standard patient beds in Japan. The questionnaires were anonymous, and participation in the study was voluntary. The survey covered the basic attributes of the respondents; the Nursing Competency Scale (Hosoda et al., 2016), which consists of the subscales of "organization commitment," "cooperative relationship building," "agonic power orientation," "flexibility," "goal achievement orientation," "leadership," and "professional practice;" and the Nursing Career Assessment Scale (Ishii et al., 2005), consisting of the subscales of "implementation and pursuit of quality nursing," "development and adjustment of interpersonal relationships," "self-capability development," and "accumulation of diverse experiences." Potential participants were given a written explanation of the purpose and methodology of the research and were guaranteed anonymity. Ethics approval was granted by the Ethical Review Board for Nursing Research of Osaka Prefecture University. In the analysis, the subscales were observed variables, and a multiple indicator model was created to indicate the effects of "Nursing Competency" on "Nursing Career" indicating the relationship between latent variables. A covariance structure analysis was conducted using IBM® SPSS® Amos.

**Outcomes:** There were 458 valid responses (45.1%); 431 were from female staff (94.1%) and 27 from male staff (5.9%). The average age was 24.1 ± SD 2.9 years, and average duration of experience in nursing work was 1.9 ± SD 0.7 years. The results of the covariance structure analysis showed that the root mean square error of approximation (RMSEA) of the initial model's fit index was greater than .1; so, based on the revised indices, a correlation was found between the error variables for "organization commitment" and "goal achievement orientation," which were observed variables for competency. The results of this consideration showed that the transition from "Nursing Competency" to "Nursing Career" had a path coefficient of .70 and a determination coefficient of .49. The fit indices for the hypothetical model were goodness-of-fit index (GFI) = .916, adjusted goodness-of-fit index (AGFI) = .868, comparative fit index (CFI) = .950, and RMSEA = .096. All of the path coefficients were significant ( $P < .05$ ).

**Implications:** The findings suggested that competency has an impact on the nursing careers of novice nurses. Since competency is also related to ability and action characteristics in nursing practice, acquiring competency increases the assigned workload, thereby resulting in changes in the roles and work content of staff. This is believed to help develop their nursing careers. This means that training aimed at developing competency is necessary for the development of staff's nursing careers. For mid-career nurses, factors such as nursing career stagnation predominate (Morishima et al., 2014) and circumstances can prevent the acquisition of competency among novice nurses (Goudreau et al., 2015). Therefore, consideration of an educational program aimed at improving competency is especially important during the initial stages of a nurse's career, when the educational needs are particularly important.

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## PST2 - Poster Session 2

### Evaluating the Level of Cultural Competence in Undergraduate Nursing Students Using Standardized Patients in Simulation

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#### Abstract

**Purpose:** Health disparities are a growing concern in the United States. In order to reduce the incidence of health disparities, it is imperative that nurses deliver culturally competent care. Leading bodies of nursing have included appropriate cultural care in their accreditation standards. However, there is no consensus in the literature about effective ways to integrate cultural competence into the curricula of bachelor of science in nursing programs. Simulation is an effective teaching tool that allows students to practice nursing skills in a controlled environment. Simulation using standardized patients (SPs) allows a systematic cultural assessment that is consistent for each student.

**Methods:** This research study used quasi-experimental mixed-method design to evaluate the level of cultural competence in undergraduate nursing students. A convenience, non-random sample of sophomore level undergraduate nursing students participated. The control group received a specifically designed lecture on cultural competence. The intervention group received both the lecture and a specifically designed simulation using SPs from diverse backgrounds. Both groups received the pretest at the beginning of the semester. The control group received the posttest two weeks after the lecture and the intervention group received it two weeks after simulation. Control group participants received the simulation at a later time. The simulation consisted of a mini-nutritional assessment, physical assessment, and brief health history with SPs from diverse backgrounds. **Study Measures:** The Inventory Assessing the Process for Cultural Competence Among Healthcare Professionals – Student Version (IAPCC-SV) tool developed by Campinha-Bacote was used for pretest and posttest in both groups. Several open ended questions were also used to gather qualitative data. **Theoretical Framework:** Campinha-Bacote's conceptual model was integrated in the class lecture and simulation and guided this research.

**Results:** Descriptive statistics were used to analyze the mean of the control group and intervention group pretest and posttest. There were 38 participants in this study. An analysis of covariance (ANCOVA) with repeated measures showed a statistical significance for time effect (pretest v. posttest)  $F(1,36) = 48.819, p < .001$  and large effect size (partial eta squared = .576). However, the interaction between the control and intervention groups was not statistically significant:  $F(1,36) = .077, p = .782$ . In addition, a between-groups F test showed the group effect was not significant:  $F(1,36) = .117, p = .73$ . Open-ended questions revealed students felt it helped with communication skills.

**Implications:** Consequently, further nursing education research is needed in the area of using SPs as an effective teaching strategy to evaluate cultural competence in undergraduate nursing students.

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## PST2 - Poster Session 2

### The Effect of Root Cause Analysis on Safe Medication Administration

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#### Abstract

In 2000, the Institute of Medicine published a landmark report on the devastating effects of medical errors. The IOM report of 7,000 deaths per year from adverse drug events averages out to 583 deaths per month, 134 deaths per week, and 19 deaths per day (Kohn, 2000). Other reports have placed that number much higher, with the consensus that harm from medical error is underreported (Makary & Daniel, 2016). Researchers have proposed that death from medical error may rank as the third leading cause of death. Since the original report, strategies to reduce harm from medical error have been widespread and have included the institution of a Just Culture, adoption of the tenants of High Reliability Organizations, and the use of Root Cause Analysis to examine the root causes of sentinel events to design solutions that will prevent reoccurrence.

Harm from medication error, reported to be the most common error in health care (Aspden, Wolcott, Bootman, & Cronenwett, 2007; Kohn, 2001), is estimated to affect 1.5 million patients per year in the United States alone. Some estimate that more than one medication error a day occurs for each hospitalized patient (Aspden et al., 2007; Bates, 2007). Not all errors cause harm, however, the estimated 400,000 adverse events that do occur, result in more than \$3.5 billion in additional medical costs (Aspden et al., 2007). Extended hospital stays multiply the financial cost. Patients who suffer harm from medication error may remain hospitalized for 8 to 12 days longer than patients who do not experience harm. These added days mean their hospital stays cost \$16,000 to \$24,000 more (Agency for Healthcare Research and Quality [AHRQ], 2015).

Nurses are at the frontline of medication administration, and are in a prime position to prevent harm from medication error. More than 40% of a nursing shift is spent administering medications (Elganzouri, Standish, & Androwich, 2009). Nurses may be responsible for between 26% and 38% of medication errors (Bates, 2007; Leape et al., 2002). Self-reported medication errors made by nurses that resulted in patient death included wrong dose (40.9%), wrong drug (16%) and wrong administration route (9.5%) (Hughes, 2008). Nursing education has traditionally relied on the use of the 5 rights to prevent medication error (Potter et al., 2013), a strategy that is at the “sharp end of care” (Reason, 1990). Strategies at the sharp end of care rely on individual characteristics and responsibility. Nurses have identified that carelessly failing to follow the five rights and nursing incompetence are major causes for making an error (Jones & Treiber, 2010). When sharp end strategies fail, the individual is blamed, but little is done to prevent future incidents of harm. The modern patient safety movement is moving away from an environment of “blame and shame”. Healthcare institutions are encouraged to utilize strategies from systems theory (the blunt end of care) to prevent harm from error (Institute for Safe Medication Practice [ISMP], 2017).

Root Cause Analysis (RCA) is an error analysis tool used to train health care staff to identify systems factors that lead to error and suggest solutions to prevent similar errors from causing harm in the future (VA Center for National Patient Safety, 2017; The Joint Commission, 2017; Wachter, 2012). Root Cause Analysis (RCA) is a tool successfully used by aviation, nuclear power and chemical engineering industries to reduce harm from error (Carroll et al., 2002; Shapell, 2001). The Patient Risk Detection Theory (PRDT; Despins, Scott-Cawiezell, & Rouder, 2010) states that nurse training is a factor that has the potential to reduce harm to patients. Educational strategies have a great deal of research support for reduction of harm to patients (Benner et al., 2002; Miller, Haddad & Phillips, 2016). The Joint Commission mandated use of Root Cause Analysis (RCA) for all sentinel events in 1997, and many states have mandated its use for major safety events as well (Association for Healthcare Research and Quality [AHRQ], 2017). Despite the widespread use of RCA, there is little evidence to support its efficacy (National Patient Safety Foundation [NPSF], 2016). RCA has been criticized due to lack of standardization, the lack of implementation by trained professionals, and a lack of follow-up and aggregation of data (Hettinger et al., 2013; Peerally, 2016). No one has studied the use of RCA training as an intervention to increase nurses' ability to administer medications safely.

This study is being done as dissertation research at East Tennessee State University. The study hypothesizes that participation in RCA, as compared to the usual safe medication administration education will increase knowledge of safe medication administration and improve scores on a measure of just culture. After consent and randomization, senior level nursing students take a pre-test, survey and demographics questionnaire. Students then participate in an online, interactive video of RCA or the usual education, followed by a post-test and a 30-day post-test and survey. Descriptive and analytic statistics will be used to analyze results (final goal for recruitment is n=90 for sufficient power for the study).

Data collection for this project has involved the use of Research Electronic Data Capture (REDCap, 2017). REDCap is a secure web application for building and managing online surveys and databases. While REDCap can be used to collect virtually any type of data, and is specifically geared to support online or offline data capture for research studies and operations. The REDCap Consortium, a support network of collaborators, is composed of thousands of active institutional partners in over one hundred countries who utilize and support REDCap in various ways. This study will present the design and implementation of an online, randomized controlled trial of a nursing educational intervention using the REDCap data collection tool.

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