PATIENT CENTERED CARE COORDINATION (PCCC) EVALUATING THE IMPACT OF A CURRICULAR MODULE ON STUDENT LEARNING OUTCOMES

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Disclosures

We have nothing to disclose
Symposium Objectives

- Describe a curricular module that helps students develop knowledge, skills, and attitudes for performing patient centered care coordination (PCCC)
- Describe the research design and methods
- Discuss the results of this study including how it increased student awareness of nursing care across various settings
- Discuss the collaborative research experience
Part I
Designing an Innovative Curricular Module to Teach Patient-Centered Care Coordination
Objectives

❖ The learner will be able to identify strategies for creating patient-centered care coordination curricular modules
❖ The learner will be able to describe the need for implementing curricula with an emphasis on patient-centered care coordination
Background: Changing Healthcare Needs

❖ Patient-centered care
  ● Core competency
  ● Needs and preferences
  ● Complexities of care – chronic & acute

❖ Various Settings
  ● Acute, sub acute, long-term, ambulatory
  ● Transitions of care
Chronic Illness Care

- 50% in US have at least 1 chronic illness
- 70% of deaths per year are related to chronic illness
- An increase in chronic illness care knowledge and participation is necessary within the structure of the Affordable Care Act

(CDC, 2013, IOM, 2011)
Care Coordination

❖ Professional nursing competency
❖ Collaboration with members of the healthcare team
❖ Education – didactic and clinical learning (Camicia et al., 2013).
❖ Future of Nursing – the challenge

The need + the charge =
The Curricular Module

❖ Challenge to optimize the learning experience
   ● Evolving clinical direction
   ● Concentration of emphasis for greater impact

❖ Response
   ● Ambulatory care virtual simulation
   ● Transitions of care
   ● Home care and hospice
   ● Community support group
The Curricular Module (cont.)

❖ Maintaining the focus
  ● Non-acute care settings
  ● Chronic physical illness
  ● Mental health
Transitions of Care

❖ Low tech simulation
❖ EHR based case study – complex care
❖ Emphasis – communication
  ❖ Inter-professional
  ❖ Intra-professional
  ❖ Between environments of care
Home Care and Hospice

- Partnered with a home care/hospice nurse.
- Focused observation
- Synthesis:
  - Roles of the nurse
  - Nursing diagnoses
  - Reflection – knowledge integration
Support Group

❖ Chronic focus
  ❖ Physical health
  ❖ Mental health
  ❖ Recovery
❖ Purpose
❖ Observational

❖ Student selected
❖ Reflection synthesis
Ambulatory Care

❖ Chronic illness
❖ Self-management support
❖ “Live” patient care encounters
  ❖ Diabetes type 2 and heart failure w/anxiety
  ❖ Type 1 diabetes w/depression
  ❖ Telephone encounter
Part II

Using Technology to Enhance Student Learning
Objectives

- The learner will be able to explain the significance of the use of virtual role-play experiences to improve student learning outcomes.
- The learner will be able to describe various types of virtual role-play simulation activities that can be used in nursing curricula.
Virtual Reality Technology

- Internet-based computer applications in which simulated environments are created.
- Active learning out of the gaming world
- “Residents” in the form of Avatars communicate, attend meetings and take part in simulations.
- Over 150 from Higher-Ed
- Standardized experiences
- New Generation of learners
THE CLINICAL EXPERIENCE:

Virtual Simulation
Ambulatory Care

❖ Chronic illness
❖ Self-management support
❖ “Live” patient care encounters
❖ Diabetes type 2 and heart failure w/anxiety
❖ Type 1 diabetes w/depression
❖ Telephone encounter
Role-playing
Angela – Type 1 Diabetes
Emma – Type 2 Diabetes
Using Technology to Enhance Fidelity

• EduCanon Software
• Case Studies enhanced with Voice
Part III

Translating Learning Outcomes to Enhance Teaching and Curricula
Objectives

- The learner will be able to discuss the design and results of the research study.
- The learner will be able to identify two strategies to enhance student learning through the application of care coordination principles.
Research Design

❖ Study conducted during Spring semester, 2015
❖ Quasi-experimental, mixed methods research design
❖ 3 data collection tools, plus a demographic instrument
❖ 73 junior level nursing student participants
❖ Coding scheme developed to ensure confidentiality of data
Research design was influenced by Kirkpatrick & Kirkpatrick’s (2006) 4-level evaluation framework

• Level 1: reaction (attitudes, satisfaction)
• Level 2: learning (measurable cognitive learning)
• Level 3: behavior (behavioral change or student learning outcome)
• Level 4: results (effect of student learning on patient outcomes)
Data Collection: Focus Groups

- Researcher-developed semi-structured interview tool
- 16 participants volunteered and participated in a focus group
- 6 focus groups were conducted by one research team member, 3 for each half-semester module
- Audio-recordings of the focus groups were professionally transcribed
Qualitative Data Analysis/Findings

Roles of the professional nurse
- Patient resource and resource gatherer/provider
- Educator
- Patient advocate
- Care coordinator

Valuing the patient/family experience
- Framed to look for integration—the whole patient, counselor
- Learning to value the patient’s unique perception/understanding/experience/autonomy
- Valuing the significance of the deep patient relationship
- The family’s role/needs
- Appreciating the challenges of self-care management, barriers
- Nurse as assessor

Knowledge and skills that nurses need for PCCC
- Before: PCCC is something outside the hospital—not acute care
- Before: What’s it all about—we don’t understand PCCC
- Before: Random assignments, low expectations
- Getting an in-depth look at nursing—various settings
- Making links between acute care practice/discharge/non-acute settings/transition
- You need to know so much
- You’ve got to be flexible and adapt, time management/autonomous decision making
- Healthcare team coordination/communication, areas for improvement

Challenges of the learning experience
Data Collection: ICSI

- Interpersonal communication style inventory (ICSI):
  - 37 item, 6 domain content validated instrument that measures communication performance
  - One research team member scored each participant during the ambulatory care virtual simulation
ICSI Findings

Figure 1

- Clarity of Information/Advice: 91.19%
- Confidence-building: 89.04%
- Expression of Care and Concern: 86.65%
- Individualization: 84.80%
- Responsiveness: 80.23%
- Engagement of Caller in Decisions: 67.80%
Data collection: CSMSS

❖ Confidence in self-management support survey (CSMSS):
  ● 7-item Likert scale instrument that measures confidence in providing chronic illness self-management support to patients
  ● Pre-test administered first week of class
  ● Post-test administered within 3 days after completion of module
## CSMSS Findings

CSMSS Item Statistics (N = 73)

<table>
<thead>
<tr>
<th>Survey Items</th>
<th>Pre-Test</th>
<th></th>
<th>Post-Test</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Providing self-care goal setting advice</td>
<td>2.9863</td>
<td>1.07359</td>
<td>4.0137</td>
<td>.61222</td>
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<tr>
<td>Explaining the best time to take medications</td>
<td>3.0274</td>
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<td>.71805</td>
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<tr>
<td>Talking to a patient about chronic illness self-management</td>
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<tr>
<td>Discussing lifestyle changes with a patient</td>
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<td>.92034</td>
<td>4.1644</td>
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<tr>
<td>Explaining dietary changes for chronic conditions</td>
<td>2.8493</td>
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<td>.71805</td>
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<tr>
<td>Encouraging patients in making changes to improve self-management</td>
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<td>.84894</td>
<td>4.3425</td>
<td>.62847</td>
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</table>
# CSMSS Findings

## Table 2

CSMSS Comparison of means Pre-test/Post-test (N = 73)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Std. Error</th>
<th>Correlation</th>
<th>Significance</th>
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<tbody>
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<td>Post-test</td>
<td>28.3973</td>
<td>3.44698</td>
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</table>

**t Test Paired Differences**

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<tbody>
<tr>
<td>Pre/Post-tests</td>
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<td>.000</td>
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</tbody>
</table>
Research Results

- The PCCC curricular module positively impacted student learning outcomes
- The students grasped the importance of communication
- Students became more confident in communicating essential self-care concepts to patients and families
- Students’ behaviors in acute care settings changed as a result of their PCCC clinical experiences.
Next Steps

❖ Curricular refinement
  ● PCCC orientation
  ● Transitions of care assignment
❖ Publication
❖ Presentations
The Collaborative Research Experience

- Faculty/student collaboration
- Online collaborative processes
- Collaborative data analysis and manuscript writing


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