Title:
"Day of Care" Video Simulation: Assessing Student Satisfaction, Proficiency, and Self Confidence in Learning

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Session Title:
Building Confidence Through Simulation
Slot:
I 12: Monday, 30 October 2017: 3:45 PM-4:30 PM
Scheduled Time:
3:45 PM

Keywords:
observational learning, role modeling and video simulation

References:
Cardoso, A., Moreli, L., Braga, F., Vasques, C., Santos, C., & Carvalho, E. (2012). Effect of a video on developing skills in undergraduate nursing students for the management of totally implantable central venous access ports. *Nurse Education Today, 32*(6), 709-713. doi:10.1016/j.nedt.2011.09.012

Davis, A., Kimble, L., & Gunby, S. (2014). Nursing faculty use of high-fidelity human patient simulation in undergraduate nursing education: A mixed-methods study. *Journal of Nursing Education, 53*(3), 142-150. doi: 10.3928/01484834-20140219-02

Johnson, E., Lasater, K., Hodson-Carlton, K., Siktberg, L., Sideras, S., & Dillard, N. (2012). Geriatrics in simulation: Role modeling and clinical judgment effect. *Nursing Education Perspectives, 33*(3), 176-180.

Johnsen, H. M., Slettebo, A., & Fossum, M. (2016). Registered nurses' clinical reasoning in home healthcare clinical practice: A think-aloud study with protocol analysis. *Nurse Education Today, 40,* 95-100. http://dx.doi.org/10.1016/j.nedt.2016.02.023

Lasater, K., Johnson, E., Ravert, P., & Rink, D. (2014). Role modeling clinical judgment for an unfolding older adult simulation. *Journal of Nursing Education, 53*(5), 257-264. doi: 10.3928/01484834-20140414-01

Sharpnack, P., Goliat, L., Baker, J., Rogers, K., & Shockey, P. (2013). Thinking like a nurse: Using video simulation to rehearse for professional practice. *Clinical Simulation in Nursing, 9*(12), e571-e577. http://dx.doi.org/10.1016/j.ecns.2013.05.004

Sideras, S., McKenzie, G., Noone, J., Markle, D., Frazier, M., & Sullivan, M. (2013). Making simulation come alive: Standardized patients in undergraduate nursing education. *Nursing Education Perspectives, 34*(6), 421-425.

Abstract Summary:
A realistic, non-scripted, high-acuity video simulation incorporating a role model RN utilizing think-aloud methodology with a standardized patient and spouse offers observational learning for online and face-to-

face undergraduate nursing students. This simulation modality can enhance student satisfaction/self-confidence in learning and proficiency in head-to-toe assessment and care of a high-acuity patient.

Learning Activity:

LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE
The learner will be able to identify a means to offer rich, high-acuity simulation to enhance assessment skills for multi-nursing track, online and face-to-face student cohorts.	Explanation into the choice of content (high-acuity care), use of standardized patient and spouse, and depiction of RN role model using think-aloud strategy as a means to provide a rich example for the assessment and care of a high-acuity patient for face-to-face and online senior level nursing students representing the following tracks; traditional BSN and LPN-BSN.
The learner will gain insight into innovative simulation modalities and techniques to enhance student learning and to reduce faculty load and scheduling logistics for high-acuity learning experiences.	Explanation into the development and use of a non-scripted video simulation to provide faculty with a usable and reusable modality to provide an equitable high-acuity simulation and aligned debriefing to various tracks of face-to-face and online senior level nursing students will be explained.

Abstract Text:

Simulation has become commonplace in campus-based environments and "has the potential to change the face of nursing education as it opens doors for students to experience today's complex and challenging patients and it enhances their critical thinking skills" (Davis, Kimble, & Gunby, 2014, p. 149). Thus, this learning strategy should also become an equal opportunity for online, distance nursing students. However, packaging a meaningful "simulation" experience for online students requires innovation aligned with foundational fact. A directive from the NLN Vision (2012) priority for research in nursing education is to study "the use and cost-effectiveness of technologies (e.g., online, simulation, tele-health) to expand capacity in nursing education" (NLN Board, 2012, p. 3). As a fully online undergraduate LPN-BSN nursing program with a direct tie to a campus and simulation center, the "tools" and manpower to create a video recorded simulation were available.

"Video-recorded simulation is a teaching technology that allows one to represent reality under controlled conditions, both of the environment and the individuals involved, which in turn favors learning" (Cardoso et al., (2011), p. 709). The desired controlled conditions included a high-acuity scenario, use of a role model registered nurse (RN), and the use of a standardized patient and spouse. Standardized patients in simulation "provide rich clinical experiences for undergraduate nursing students" (Sideras et al., 2013, p. 425). In the context of simulation, "observation of an expert role model . . . can impact student development of clinical judgment" (Lasater, Johnson, Ravert, & Rink, 2014, p. 263). Johnson et al., (2012) confer and note that the observational learning can be enhanced when aligned with thinking aloud by expert nurses. Using the "think-aloud technique in real clinical practice [simulation] may provide a more valid description of clinical reasoning because it captures the spontaneous thinking and communication that occurs during patient contact" (Johnsen, Slettebo, & Fossum, 2016, p. 99).

Purpose: As senior level nursing students, clinical assignments, based on a patient from their high-acuity clinical setting, are required. Due to a noted deficiency in the ability to complete and accurately document a head-to-toe-assessment (initial and continuous) of a high-acuity patient, it was determined that a video

simulation may prove beneficial. Ghude (2010), contends that "videotapes of patient scenarios can be effective in presenting case studies since the student can actually watch a patient interaction" (p. 274).

The intent of this video was to allow students to observe events that unfold in the assessment and care of a high-acuity patient throughout a typical shift. As such, the created video (about 40 minutes in length) was edited to reveal important scenes from admission to the intensive care unit (ICU) throughout the day of care. Through the combined use of video, role modeling with verbalization of thinking, chart elements, and standardized patients, the purpose was to:

1. Increase the students awareness of the significance of an initial head-to-toe assessment of a high-acuity patient and the means of accomplishing the task

2. Identify students ability to complete a head-to toe assessment and continued assessment of a high-acuity patient following the observation of a packaged video simulation

Methods: In order to utilize the think-aloud method, the creation of the video was essentially non-scripted. The RN role model knew the physiological issues of the patient and proceeded with assessment and care accordingly. The standardized spouse would ask pertinent questions and act concerned requiring significant interaction with the role model RN. The standardized patient was essentially non-responsive.

Prior to observing the video, students were given all necessary patient chart items (history and physical examination, diagnostics, labs, medications, orders). As the non-scripted video simulation progressed, the RN role model would vocalize, based on the think-aloud method, the head-to-toe assessment details as she was assessing and conversing with the very concerned spouse (standardized model). This approach flowed in a very natural and realistic progression.

Participating students included traditional face-to-face campus-based undergraduate BSN students and fully online LPN-BSN students. Per IRB approval, students were provided with an informed consent for participation in the post simulation NLN survey and to allow the score from their patient data profile (PDP) to be utilized for data analysis.

As a clinical assignment, all students were required to view the "Day of Care" video simulation, complete the patient history and head-to-toe assessment on the PDP, complete a central-line insertion e-simulation, and participate in simulation debriefing. All students accessed the video and e-simulation at their convenience within a scheduled week and submitted their PDP. In the following week, the traditional BSN students participated in a face-to-face debriefing during a class session and the LPNBSN students participated in an online discussion board debriefing. Following this, all students had access to the NLN Student Satisfaction and Self-Confidence in Learning survey to reflect on the "Day of Care" video only. This 13 item tool utilizes a five point scale. Reliability has been "tested using Cronbach's alpha: satisfaction = 0.94; self-confidence = 0.87" ("Description of Available Instruments," 2016).

Results: Of the 54 traditional BSN students, 54 (100%) who completed the PDP and 17 of 22 (77.3%) of the LPN-BSN students who completed the PDP consented for their score to be used in data analysis. Likewise 39 (72.2%) of the traditional BSN and 17 (77.3%) of the LPN-BSN students completed the NLN Student Satisfaction and Self Confidence in Learning survey. Scores on the overall PDP were 95.27% (LPN-BSN) and 86.93% (traditional BSN). Specifically, for the detailed head-to-toe assessment section, the LPN-BSN students scored 94.62% and the traditional BSN students scored 84.76%. The scores for the PDP were based off of a 13 point rubric that had been customary for multiple semesters. LPN-BSN students were familiar with the PDP from prior use in a previous course. Thus, they may have had a better sense of the content detail and expectations. Regarding the teaching methods used in this simulation, 100% of LPN-BSN respondents and 79.49% of traditional BSN students agreed or strongly agreed that the methods were helpful and effective. When grouped as questions regarding satisfaction in learning, the results of respondents answering agree or strongly agree were 87.86% for LPN-BSN and

56.9% for traditional BSN students. Aligned with this, only 46.16% of traditional BSN students found this simulation modality suitable to the way they learn which contrasts 84.35% of LPN-BSN students.

In regards to overall self confidence in learning, the results of respondents answering agree or strongly agree were 77.8% for LPN-BSN and 72.11% for traditional BSN students. More specifically, 81.25% of LPN-BSN and 74.36% of traditional BSN students responded agree or strongly agree that the "simulation covered content necessary for the mastery of medical surgical curriculum." Fewer were confident that they were "mastering the content of the simulation activity" with 76.47% of LPN-BSN and 58.97% of traditional BSN students responding agree or strongly agree.

One question in particular that revealed the least positive agreement was; "It is the instructor's responsibility to tell me what I need to learn of the simulation activity content during class time." The results of respondents answering agree or strongly agree were 47.05% LPN-BSN, and 61.54% for traditional BSN students. And, in contrast to this question, students responded favorably to a similar question, "It is my responsibility as the student to learn what I need to know from this simulation activity." The results of respondents answering agree or strongly agree were 94.12% of LPN-BSN, and 79.48% for traditional BSN students.

Conclusion: "Offering audio or visual educational strategies has strong potential for reaching the various learning styles of students and improving educational outcomes" (Sharpnack, Goliat, Baker, Rogers, & Shockey, 2013, p. e572). This held true for the LPN-BSN students but less so for the traditional BSN students. Quite likely, for online students without access to a face-to-face simulation, the use of the realistic video simulation is a close representation and option. In contrast, the traditional BSN students may have given the video simulation a less favorable assessment as they are aware of the face-to-face simulation options they have available.

The differences in the PDP scores could be partially attributed to lack of familiarity with the document (although self-explanatory) for the traditional BSN students. Despite the differences, students were told to read the prepared patient chart items and view the video (as much as needed) in order to gather all necessary information to thoroughly complete the PDP. Scores on the PDP do attest to the fact that the students were able to satisfactorily complete a thorough head-to-toe assessment of a high-acuity patient through a day of care via observation of a RN role model using the think-aloud strategy.

Recommendations for future research could include an assessment of student satisfaction and selfconfidence in learning that reflects on a bundled simulation (video simulation combined with an e-simulation element). Although this was done for the student assignment, surveys only reflected the video simulation. The added, aligned e-simulation may have a surprising impact as it allows for "hands-on" versus strictly observational learning. In addition, assessing additional tracks of nursing, such as accelerated, could be beneficial.