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## Using Simulation to Develop Clinical Teaching Competencies in Nurse Educators

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FINAL REPORT

Grant: **2018-2019 Sigma/ATI Educational Assessment Nursing Research**

Title: **Using Simulation to Develop Clinical Teaching Competencies in Nurse Educators**

Principal Investigator: **Julie Fitzwater, MNE, RN, CNRN, CNE**

Project Start Date: **November 1, 2018**

Project End Date: **October 31, 2019**

**Abstract**

To measure the effect of simulation on clinical educators' knowledge and skills about effective formative feedback for prelicensure nursing students.

**Subject Population**

Clinical nurse educators who teach prelicensure nursing students in clinical education were recruited. Participants (N=12) were majority female with 5 or more terms of teaching experience with nursing students.

**Research Design**

Pretest and Posttest design with a simulation workshop for educators as the intervention. This was a pilot study.

**Theoretical Frameworks**

The theoretical frameworks guiding the research study include Meleis' Transitions theory and the NLN Jeffries Simulation theory. Transitions theory addresses the situational transition when a nurse clinician takes on the new role of nurse educator. Simulation theory provides structure and background for the concepts included in developing a simulation learning experience.

**Instruments**

The study used the modified Nurse Educator Self Evaluation (NESE) (Kalb & Skay, 2016), with six demographic questions, based on National League for Nursing teaching competencies I, II and III (NLN, 2012) before and after the workshop. The Simulation Design Scale (SDS) was completed by participants after the simulation workshop to evaluate the effectiveness of the

simulation experience. The PI-developed Observed Formative Feedback Behaviors Tool (OFFBT) was used during the simulation workshop to record participant use of six identified behaviors to promote effective formative feedback.

### **Procedure**

After recruitment, participants completed the modified NESE online, completed an online module introducing formative feedback behaviors, and signed up for a 4-hour simulation workshop. After participating in the simulation workshop, participants completed the modified NESE and SDS. The OFFBT was used by the PI during the simulations to record participant use of feedback behaviors. Educators were exposed to behaviors for effective formative feedback to nursing students using simulation prebriefing, participation and observation of scenarios, and debriefing.

### **Results**

Wilcoxon Signed Rank Test revealed a statistically significant increase in knowledge and skills following participation in the educational intervention. The p value was  $< .008$  with a large effect size ( $r = .569$ ). The median score of the modified NESE increased from pretest (median 154) to posttest (median 166).

### **Discussion**

Placing clinical nurse educators in the learner role in simulation could provide benefits of increased knowledge, skills, and attitudes as shown in simulation education of nursing students. Results of this pilot study showed an increase in knowledge and skills for nurse educators in areas important for providing feedback to students using the National League for Nursing academic nurse educator teaching competencies (NLN, 2012).

## **1. Summary of project aims**

### **Purpose and Specific Aims**

The purpose of this pilot study was to determine if simulation is an effective method to increase teaching competencies in novice clinical nurse educators by examining behaviors to provide effective formative feedback. The preparation and educational experience of nursing students can be enhanced with high quality educators who can assess student performance and communicate effective formative feedback using evidence-based pedagogy.

The specific aims of this pilot study were to 1) determine the effects of simulation learning experiences on clinical educators' knowledge and skills to provide meaningful formative feedback to prelicensure nursing students; and 2) evaluate the simulation training method for educators. The hypothesis of aim 1 is as follows: 1) After completion of the simulation training, clinical educators will demonstrate greater knowledge and skills to provide meaningful, formative feedback to prelicensure nursing students in the clinical setting. The findings of this study will promote a high level of education for nursing students by providing an experiential training for clinical nurse educators and a scientific foundation for future educator training with simulation.

## **2. Theoretical/Conceptual Frameworks**

The theoretical frameworks guiding the research study include Meleis' Transitions theory and the NLN Jeffries Simulation theory. In Meleis' (2010) theory, transitions are personal and environmental and include the expectations of the people involved, knowledge and skill level, emotional and physical well-being, and the level of planning. With attentive mentoring and training, the transition experience can lead to role mastery. Role mastery indicates the successful navigating through the change of the transition. Transitions theory addresses the situational transition when a nurse clinician takes on the new role of nurse educator. The nurse educator must be aware of the new situation they are in and what the critical events are in the transition. The nurse educator will be faced with facilitators and inhibitors during their

development and certain supportive measures can help them feel connected to students and other faculty, develop confidence and learn to cope with the new situations.

Simulation theory provides structure and background for the concepts included in developing a simulation learning experience. The NLN Jeffries Simulation Theory was used to develop the simulation training workshop scenarios and guide its implementation and evaluation. The concepts of the theory are context, background, design, simulation experience, facilitator and educational strategies, participant, and outcomes (Jeffries, Rodgers & Adamson, 2015). This pilot study used the clinical nurse educator as the learner in the scenarios.

### **3. Methods, procedures, and sampling**

After IRB approval of the research study, clinical nurse educators were recruited from academic and clinical institutions by email and word of mouth. Participants were given links by email to complete the modified NESE survey online using Qualtrics® and narrated video information about the NLN teaching competencies and formative feedback behaviors using youtube.com. Participants were assigned a random number as an identifier on surveys and after completion of the study, all participant identifiers were destroyed.

The following competencies were used to create the modified NESE survey:

NLN Academic Nurse Educator teaching competencies I, II, III (NLN, 2012)

#### **Competency I: FACILITATE LEARNING**

*Nurse educators are responsible for creating an environment in classroom, laboratory, and clinical settings that facilitates student learning and the achievement of desired cognitive, affective, and psychomotor outcomes.*

#### **Competency II: FACILITATE LEARNER DEVELOPMENT & SOCIALIZATION**

*Nurse educators recognize their responsibility for helping students develop as nurses and integrate the values and behaviors expected of those who fulfill that role.*

#### **Competency III: USE ASSESSMENT & EVALUATION STRATEGIES**

*Nurse educators use a variety of strategies to assess and evaluate student learning in classroom, laboratory and clinical settings, as well as in all domains of learning.*

Participants attended a 4-hour simulation workshop. The workshop included a review of feedback behaviors, role play practice using the feedback behaviors, a recorded scenario with debriefing, and live simulation scenarios. The simulation scenarios were developed and implemented using the NLN Jeffries Simulation Theory (Jeffries, 2015; Jeffries & Rogers, 2012; Jeffries, Rodgers, & Adamson, 2015). The OFFBT instrument was used during the simulations to record the feedback behaviors used by the participants. Simulation faculty, simulation operators, and a standardized patient actor were used for the high-fidelity workshop scenarios. Participants chose from a lottery whether they were scenario participants or observers for each of the two simulation scenarios in the workshop.

After completion of the workshop, the modified NESE and the SDS were completed with paper and pencil. Participants received a certificate for the workshop and a gift card after completing the surveys.

Clinical nurse educators who teach prelicensure nursing students in clinical education were recruited. Participants (N = 12) were majority female with 5 or more terms of teaching experience with nursing students. Half of the participants were BSN-prepared, and half were MSN-prepared with 8 primarily employed at academic institutions and 4 primarily employed at healthcare institutions. Four participants were age 26 to 35 years old; one was 36 to 45 years old, 5 were 46-55 years old, and 2 were over 65 years old.

#### **4. Summary of findings**

Cronbach's alpha of all NESE items and the subscales were  $> .9$  showing good reliability. The SDS subscales had Cronbach's alpha of .506 and .985.

Wilcoxon Signed Rank Test revealed a statistically significant increase in knowledge and skills following participation in the educational intervention. The p value was  $< .008$  with a large effect size ( $r = .569$ ). The median score of the modified NESE increased from pretest (median

154) to posttest (median 166). Results of this study showed an increase in knowledge and skills for nurse educators in areas important for providing feedback to students measured using the National League for Nursing academic nurse educator teaching competencies (NLN, 2012).

The SDS results showed means between 4 and 5 for the five features of objectives/information, support, problem-solving, feedback, and fidelity (NLN, 2018). The areas learners rated lowest were the importance of exploring all the possibilities of the simulation and their need for help being recognized. The survey results did not indicate any need for altering the simulation scenarios.

The PI-developed OFFBT collected verbal and nonverbal use of feedback behaviors during the simulation scenarios. The observed feedback behaviors were aggregated in Table 1.

Table 1. Observed formative feedback behaviors during simulation scenarios.

<b>Nonverbal behaviors</b>	<b>Verbal behaviors</b>
Voice is soft, sounds caring	Asked student to see the dose on the medication and distracted the patient about the weather while student corrected the dose.
Freezes in scenario, unsure what to do	Asked "what do you remember about the 5 rights?" Had the student review with them.
Is attentive in the room with student, shows enthusiasm	Said, "I am going to give feedback to you...checked the vitals appropriately, made sure the patient was comfortable..." Reinforces the student recognized it was an emergency, even if unsure what to do.
Stays still and whispers	Used specific objective examples when giving feedback to student.
Open posture, smiling, calm	Asked student about how they felt when the client had trouble breathing. Student was able to talk about their panicky feelings when in the room.
Calm tone	When student did not check ID band despite cues, instructor said, "I will check the wristband while you check the MAR". The instructor followed up with objective examples in debrief when the student did not identify this concern of missing a step of rights of drug administration.

Nodding to student comments, encouraging	
Seemed relaxed, friendly	

## 5. Recommendations

Simulation education was evaluated in a systematic review and meta-analysis of learning outcomes showing improved outcomes for student learning compared to traditional lecture and didactic teaching strategies (Cook et al., 2011). Placing clinical nurse educators in the learner role in simulation could provide benefits of increased knowledge, skills, and attitudes as shown in simulation education of nursing students. Results of this pilot study showed an increase in knowledge and skills for nurse educators in areas important for providing feedback to students using the National League for Nursing academic nurse educator teaching competencies (NLN, 2012). To assist nurses in the transition from clinician to nurse educator, simulation could play a role in the development of knowledge and skills. More research is warranted to verify the outcomes for nurse educators using simulation to develop teaching competencies.



## References

- Cook, D.A., Hatala, R., Brydges, R., Zendejas, B., Szostek, J.H., Wang, A.T.,...Hamstra, S.J. (2011). Technology-enhanced simulation for health professions education: A systematic review and meta-analysis. *JAMA: The Journal of the American Medical Association*, 306(9), 978–988. doi: 10.1001/jama.2011.1234
- Jeffries, P. R., & Rogers, K. J. (2012). Theoretical framework for simulation design. In P.R. Jeffries (Ed.), *Simulation in nursing education: From conceptualization to evaluation* (2nd ed.) (pp. 25–41). New York: NLN.
- Jeffries, P. R. (2015). *The NLN Jeffries Simulation Theory*. Philadelphia: Wolters Kluwer Health.
- Jeffries, P.R., Rodgers, B., & Adamson, K. (2015). NLN Jeffries simulation theory: Brief narrative description. *Nursing Education Perspectives*, 36(5), 292–293.
- Kalb, K. A., & Skay, C. L. (2016). Revisiting the “Nurse educator self-evaluation”: Educating for excellence in nurse educator practice. *Nursing Education Perspectives*, 37(6), 307–309. doi: 10.1097/01.NEP.0000000000000074
- Meleis, A. I. (2010). Theoretic development of transitions. In A. I. Meleis (Ed.), *Transitions theory: Middle-range and situation-specific theories in nursing research and practice* (pp. 13–51). New York: Springer Publishing Company.
- NLN (2012). *The Scope of Practice for Academic Nurse Educators 2012 Revision*. New York: National League for Nursing.
- National League for Nursing (2018). Descriptions of available instruments. Retrieved from <http://www.nln.org/professional-development-programs/research/tools-and-instruments/descriptions-of-available-instruments>.