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Nurse Educator Perceptions of Using Simulation for Evaluation of Nursing Competencies

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This is to certify that the doctoral study by

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Abstract

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MHA, University of Maryland University College, 2008

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Project Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Over the past 10 years, simulation technology has been increasingly used in clinical settings to evaluate nursing competencies and ensure safe patient care. However, not all simulation laboratories are used consistently by hospital nursing education departments to support learning. The purpose of this qualitative case study, framed by constructivist theory, was to identify nurse educators' perceptions of the value of using simulation to evaluate nurse competence. Research questions addressed how nurse educators decided what teaching methods to use when evaluating nursing competencies. The participant sample included 8 nurse educators responsible for the education of new and practicing nurses in the organization. Data collection included one-to-one interviews to elicit responses to questions about use of simulation for evaluation of nursing competencies. A document review of educators' assessments of nurse competencies was used to enhance accuracy of the data. Interview responses were coded by hand and analyzed through interpretive thematic analysis. Six themes emerged related to simulation: experience, competency options, teaching methods, technology, challenges/barriers, and advantages/disadvantages. Participants discussed the usefulness of simulation to assess competence but identified challenges and barriers to using the technology. Findings from the study were used to create a professional development program for nurse educators to implement effective strategies for use of simulation for teaching in the hospital setting. Implications for positive social change include using simulation to improve the development and competence of nurses in the hospital setting, thus helping to ensure a culture of safety for patients.

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Section 1: The Problem

Introduction

Today's ever-changing health care environment requires nurses to be able to accurately assess and make critical decisions regarding the care of patients (Lucas, 2014). Turkel, Marvelous, Morrison, and Singletary (2016) stated that when nurses lack critical thinking skills, knowledge, and awareness, the safety of the patient is compromised. Competency in practice is essential to ensure the safe care of patients (O'Brien, Hagler, & Thompson, 2015). Mariani and Doolen (2016) noted that simulation is an effective teaching-learning strategy in nursing education to help ensure nursing competencies for practice. The Institute of Medicine (IOM) suggested the use of simulation as an alternative teaching method to facilitate the acquisition and maintenance of nursing competencies (Zimmerman & House, 2016). Despite evidence of the effectiveness of simulation for nursing education, there remain barriers that prevent its use by nurse educators. A local hospital has a simulation laboratory, but it was not used consistently by the nursing education department to support learning. This project study explored nurse educators' perceptions of using simulation in the hospital setting to understand how they make decisions about its use in evaluating nurse competencies.

Over the past decade there has been tremendous growth in the use of simulation as a learning strategy in healthcare professions (Durham, Cato, & Lasater, 2014). According to Eisert and Geers (2016), healthcare organizations embrace state-of-the-art educational approaches, particularly simulation, because it is focused on the learner, is

grounded in adult learning theory, and addresses various learning styles. To support the

continued education and advancement of nurses, educators must embrace simulation

technology as a teaching method (Tiffany & Hoglund, 2014). Outcomes of this project

study will add to the evidence needed to inform nurse educators' use of simulation in the

hospital environment. Understanding educators' perceptions of the use of simulation as a

teaching strategy in hospitals can contribute to positive social change in the nursing

profession by enhancing competencies in nursing practice. Positive change may result

when educators are knowledgeable about using simulation technology as part of the

education process to assess the practicing nurse's knowledge. Improved development of

the nurses' skills and ability to critically think may enhance their preparation for patient

care. Findings of the study could provide the nursing profession with alternative

strategies to prepare nurses to attain and maintain competency in the hospital setting.

The Local Problem

The simulation laboratory at a local hospital (hereafter referred to as Summit

University Hospital) is equipped with a variety of simulation technology methods that

can be used for instruction but was underutilized by nurse educators, according to

simulation logs I reviewed. According to the lab director, 20% of the nurse educators

used the lab to introduce new nurse hires to hospital practices and to assess clinical

judgment using scenarios, but this practice was not consistent among educators over the

prior year (refer to Appendix E).

Educators are responsible for ensuring that nurses demonstrate competency in practice (Von Colln-Appling & Giuliano, 2017) and hospitals have a responsibility to validate that nurses have the knowledge and experience to make strong clinical judgments that maximize patient safety (Adamson, 2010). Simulation programs based in a hospital or healthcare system support the enhancement of the educational experience of the staff (Manos & LeMaster, 2014). Despite evidence of the effectiveness of simulation as a teaching strategy, nurse educators at Summit University Hospital did not consistently use simulation to help ensure nursing competencies.

Based on 2016 simulation logs, educator use of simulation for nurses at Summit University Hospital was 20% compared to other disciplines that use the lab for training 50% of the time. The lab does not belong to the nursing department but could be used, when requested, for education and training purposes. The simulation laboratory was consistently used for training by other disciplines in the hospital, such as the Operating Room, Pharmacy, Medicine, Cardiopulmonary Resuscitation (CPR), and Advanced Cardiac Life Support (ACLS).

Simulation is used in healthcare settings for onboarding, continuing education, staff advancement, high-risk low-volume scenarios, team training, evaluating new equipment, and hospital projects (Manos & LeMaster, 2014; Rutherford-Hemming & Alfes, 2017). Simulation offers an alternative method for education (Durham et al., 2014; Mariani & Doolen, 2016) but educators at Summit University Hospital did not embrace this practice. The focus of this project study was to understand what prevents nurse

educators from selecting simulation as a teaching strategy. Examining nurse educators'

perceptions of using simulation provided insight into the decision-making process when

selecting teaching strategies for learning.

<div align="center">**Rationale**</div>

Evidence of the Problem at the Local Level

Summit University Hospital is a large tertiary teaching facility located in the inner

city in the Mid-Atlantic region of the United States. The medical center has 700 beds and

employs approximately 900 nurses. The nursing education department is responsible for

ensuring that all nurses maintain competence in practice. Educator assessment of nurse

competency is an instructor-led process that begins at the start of orientation and is

continually assessed and formally evaluated annually throughout employment. Nurse

competence is determined by nurse educators through instruction, content review, and

testing. Competency checklists (Appendix C) are used to document the nurses'

completion of these skills (procedures/competency checklist).

According to a nurse educator at the hospital, the assessment process for nurse

competency involves evaluation of a set of specific skills; some nurses are also given a

test that reflects hospital policies, procedures, and regulatory requirements. Many of the

nursing units have dedicated educators who are responsible for teaching the nursing staff,

and while nurses were receiving the same educational content, the selected teaching

methods for receiving the content was based on the educators' preference.

The technology in the training laboratory consists of low, mid, and high-fidelity simulation. Low-fidelity simulation is the most common type and is used for CPR, catheterization, and intravenous line placement. Mid-fidelity simulation uses computer programs or video games and high-fidelity simulation provides visual and auditory responses that imitate a real patient interaction (Aebersold & Tschannen, 2013; Basak, Unver, Moss, Watts, & Gaioso, 2016; Przybyl, Androwich, & Evans, 2015). Rather than using low-, mid-, or high-fidelity technology, most nurse educators at Summit University Hospital continued to select traditional methods for evaluating competencies, such as instructor-led presentations and training. For example, newly hired nurses' competency assessments for blood drawing and intravenous catheter insertion require nurses to perform these procedures three times on a patient before they can be signed off as competent on the unit. This reliance on patients for nurse competency assessment may cause unnecessary discomfort and potential harm to the patient.

An important benefit of using simulation for assessing nurse competency is that nurses can practice and perfect a skill without causing discomfort or potential harm to the patient. Cheney, Josey, and Tinker (2014) questioned whether practicing on actual patients is still considered an acceptable method for learning new skills and suggested a nurse should practice intravenous insertion on a skill trainer simulator that has veins, rather than a person. Przybyl et al. (2015) identified that learning focused on patients at the bedside is decreasing as a teaching methodology, and other methods need to be adopted.

Von Colln-Appling and Giuliano (2017) defined critical thinking as the ability to apply higher-order cognitive skills and make thorough and appropriate decisions. There are times when nurses' critical thinking and judgment may be in question, such as when a medication error has occurred, or there is a lapse in judgment. The education department is then responsible for conducting an assessment to determine if a nurse's practice is safe. The nurses are directed to review resource modules on the topic of error.

The nurses' ability to prove critical thinking and competence in practice is limited when using traditional assessment methods (Lucas, 2014). Simulation technology can be used to develop critical thinking and competence for nurses and improve practice (Turkel et al., 2016). Simulated experiences offer opportunities for learners to master skills within the context of experiential learning (Letcher, Roth, & Varenhorst, 2017). According to Turkel et al. (2016), critical thinking is recognized as fundamental to nursing practice. Factors that influence nursing knowledge and training related to critical thinking include advanced technology, high-acuity patients, clarity in communication, and patient safety (Turkel et al., 2016).

Some nurse educators at Summit University Hospital carried out competency assessments through poster presentations and skill stations set up on the nursing unit. Some educators relied on veteran nurses on the units to deliver the information to their peers. All nurses are required to attend annual training sessions and demonstrate required skills. There was no consistent, standardized process used by educators in the organization for evaluating nurses' clinical skills. Most of the demonstrations were led by

veteran staff nurses who may be proficient in a skill but may not have formal preparation or experience in teaching. Skill stations instruction and assessment were not a 1:1 ratio; therefore, nurses' skills are not always individually assessed. According to a nurse educator at the hospital, using a skill station allows the nurse to discuss steps to a procedure but does not provide evidence about how the nurse would react to critical patient changes that occur.

Members of a community expect nurses to be competent when they are caring for them (Przybyl et al., 2015). Summit University Hospital requires that all nurses who are caring for patients be skilled in their area of practice. No data had been previously collected in the organization to determine the best evidence-based practice for teaching through the use of simulation. There was a need to identify teaching strategies used by nurse educators to ensure consistency in educational preparation for nurses and meet the community and hospital expectations (see Gotwals, Shelley, & Yeager, 2014).

There may be many reasons why educators select methods of instruction other than simulation. The level of nurse education and experience varied in the education department, and there was no standard educational training program for nurse educators. Some educators did not have any prior teaching experience; therefore, they may lack the knowledge to teach with simulation appropriately. Additionally, some educators lacked the experience needed to use simulation equipment (Al-Ghareeb & Cooper, 2016). This study adds to the discussion on how nurse educators decide to use simulation to evaluate competencies of nurses in the hospital setting.

Evidence of the Problem from the Professional Literature

Surveys have provided data on the trends and challenges with using simulation in nursing (Taibi & Kardong-Edgren, 2014). The National Council of State Boards of Nursing (NCSBN) issued the most extensive study of nursing education simulation adoption and use in the United States. The NCSBN study tracked and documented current simulation use in approximately 1,670 U.S. nursing programs (Taibi & Kardong-Edgren, 2014). According to Kim, Park, and O'Rourke (2017), from 2002 to 2010 the number of nursing programs in the United States using simulation grew from 66 to 917, and this number is expected to continue to increase. The Society for Simulation in Healthcare (2017) reported that there are 374 simulation centers in the United States and 88 of those are accredited by the Society for Simulation in Healthcare. Accredited simulation programs must have a 2-year track record of excellence in assessment, research, or teaching to be considered eligible to apply for accreditation (Society for Simulation in Healthcare, 2017).

A review of literature by Rutherford-Hemming and Alfes (2017) showed that between 2012 and 2015 there were 45 studies published in the United States related to the use of simulation-based education with nurses in the hospital setting. The systematic review found that there is a need to increase what is known about using simulation in areas such as the operating room, post anesthesia, and in situ. Simulation performed in situ takes place in nurses' work environment and increases the reliability of the simulation process by allowing the nurse and team to practice in the same location where

patient care happens (Rutherford-Hemming & Alfes, 2017). Although nurses make up the most considerable number of staff in the hospital setting in the United States, research related to the use of simulation with practicing nurses is very limited (Rode, Callihan, & Barnes, 2016; Rutherford-Hemming & Alfes, 2017; Turkel et al., 2016).

Cook (2014) explained that simulation modalities such as task trainers, standardized patients, role-playing, low-fidelity manikins, and high-fidelity patient simulation (HPS) are being used for many types of training in nursing.These modalities allow for practice of skills to occur without causing harm to a real patient. The American Association of Colleges of Nursing (AACN) and the National League for Nursing (NLN) developed guidelines suggesting that educators are accountable for providing educational experiences that will support critical thinking, reflection, and the development of hands-on skills for clinical practice (Przybyl et al., 2015). Simulation in nursing literature has suggested a variety of ways that simulation is integrated into practicing nurses' environment to help ensure competencies (Aebersold & Tschannen, 2013).

According to Gardner (2014), because of the nurse educator shortage, master's prepared nurse clinicians, who may lack preparation in teaching and learning, are often employed to fill educator positions. Although all nurses have some experience in education, few are prepared to handle the demands of being a new educator (Gardner, 2014; Richardson & Clamans, 2014). Gardner (2014) acknowledged that strategies to support nurse educators from the clinician role is crucial to their success. Some educators are known to teach in the manner that they were prepared and are motivated by their own

learning styles (Robinson & Dearmon, 2013). Continued professional development and mentoring offer guidance and support to nurse educators who are transitioning into the role. Becoming an effective educator involves time, formal or informal education, and experience (Gardner, 2014). Nurse educators are challenged to incorporate simulation technology as a teaching strategy, but some educators do not have the essential training needed to use simulation effectively (Taibi & Kardong-Edgren, 2014).

Adamson (2010) noted that hospitals must ensure that nurses have the knowledge and experience to make strong clinical judgments that maximize patient safety. Eisert and Geers (2016) explained that simulation is becoming widespread in academic and health care and Von Colln-Appling and Giuliano (2017) identified that educators are responsible for ensuring that nurses demonstrate competency in practice. According to Xu (2016), to deliver high-quality education, nurse educators must select appropriate teaching strategies. Manos and LeMaster (2014) explained that simulation programs based in a hospital or healthcare system support the enhancement of the educational experience of the staff. Nurse educators face many challenges when presenting new teaching and simulation approaches, but the technology is not embraced by all providers (Al-Ghareeb & Cooper, 2016; Manos & LeMaster, 2014). O'Brien et al. (2015) designated competency in practice as being essential to ensuring the safe care of the patient.

Hallmark (2015) explained that health care educators typically begin their careers as professionals in the clinical area. Most of these nurses start teaching without formal education courses on how to teach. Hallmark suggested that even with increased pressure

to use simulation, educators remain unsuccessfully trained and the technology remains underutilized. Poor educational pedagogy results when there is a lack of training of how to use simulation in education (Hallmark, 2015). Some of the reasons identified in the literature about why educators are reluctant to adopt simulation include lack of time, training, space, equipment, scheduling, funding, staffing, and limited resources (Adamson, 2015; Kim et al., 2017; Taibi & Kardong-Edgren, 2014).

Abell and Keaster (2012) described that even though simulators are readily available, some educators still choose not to use simulation as a teaching modality. Lack of time, especially for preparation and planning simulations, lack of support, including the support of administrators, and lack of technical support are identified as additional barriers (Taibi & Kardong-Edgren, 2014). Organizations are challenged to identify ways to allow educators the time needed to use simulation appropriately (Eisert & Geers, 2016). While there is a push to implement simulation-based training in the hospital setting, more research is needed to determine if the use of simulation results in improved competence in practice, critical thinking, and better patient outcomes (Rutherford-Hemming & Alfes, 2017).

Purpose of the Study

As a result of high acuity patients and concerns for patient safety, healthcare facilities must identify and implement evidence-based practices that will aid in the development and maintenance of nurse competencies so that nurses function at their fullest potential (Al-Ghareeb & Cooper, 2016; Manos & LeMaster, 2014). A better

understanding of how nurse educators decide to use simulation for competency evaluation is needed. The purpose of this project study was to identify how nurse educators perceive the value of using simulation to evaluate nurse competencies.

Definition of Terms

The following definitions serve to inform this study:

Barriers: Challenges or obstacles that may cause educators to question their intention to use manikins (Al-Ghareeb & Cooper, 2016).

Clinical nursing judgment: Cognitive, psychomotor, and affective processes demonstrated through action and behaviors (Victor-Chmil, 2013).

Clinical reasoning: Cognitive and metacognitive processes used for analyzing knowledge (Victor-Chmil, 2013).

Competency: Integration of knowledge (evidence-based practice); skills performance (including technical and nontechnical skills); communication and collaboration (patient, family, interprofessional); critical and reflective thinking (judgment and quality improvement); and values (to include professional and personal attitudes) (Hagler & Wilson, 2013).

Critical thinking: Ability to apply higher-order cognitive skills and the disposition to be deliberate about thinking (Von Colln-Appling & Giuliano, 2017).

High-fidelity simulation: Simulations that use computerized manikins (Aebersold & Tschannen, 2013).

Low-fidelity simulation: Simulations that use role play, non-computerized manikins, or task-trainers (Aebersold & Tschannen, 2013).

Mid-fidelity simulation: Simulations that use non-computerized patients, computer programs, or video games (Aebersold & Tschannen, 2013).

Simulation: Technique used to substitute real experience with guided experience that replicates aspects of the real world (Al-Ghareeb & Cooper, 2016).

Task skill-trainers: Simulators that are used to practice a skill, such as an IV arm that is used to practice IV insertion skills (Aebersold & Tschannen, 2013).

Significance of the Study

Summit University Hospital is an inner-city teaching facility located in the Mid-Atlantic region of the United States. Understanding nurse educators' use of simulation is meaningful to the local setting, the nursing discipline, and the education profession. Although thousands of dollars are invested in the purchase of simulation equipment, this valued resource is not used to its full potential in many nursing programs in the United States (Foronda, Lui, & Bauman, 2013). Since the publication of the IOM *To Err is Human and Crossing the Quality Chasm: A New Health System for the 21st Century* report, hospital personnel have focused on ways to improve patient safety (Turkel et al., 2016).

Developments in medical science and evidence-based practice create challenges for health professionals to keep up with new knowledge (Ballangrud, Hall-Lord, Hedelin, & Persenius, 2014). Using simulation offers an opportunity to connect theory with

clinical experiences to improve nurse competency (Stroup, 2014). With simulation, nurses can gain progressive clinical competence through hands-on practice with simulated patients in a setting where it is safe to make mistakes (Hommes, 2014; Lucas, 2014). Thus, it is essential to identify nurse educators' perceptions of simulation use in hospital settings to use this resource to help support nursing competency in providing safe patient care.

Research Questions

The following research questions served as a guide for this study:

Research Question 1: How do nurse educators decide whether to use simulation to assess nurse competencies?

Research Question 2: How do nurse educators decide to use traditional methods of instruction to assess nurse competencies?

Research Questions 3: What are nurse educators' perceptions of the advantages and disadvantages of using simulation for teaching nurses in the hospital setting?

Review of the Literature

The literature review was conducted using electronic databases *Academic Search Complete, CINAH, EBSCOhost, OVID Nursing, ProQuest,* and *Science Direct*. Full-text, peer-reviewed journal articles that focused on simulation research publications between 2013-2017 were identified. Boolean and Google Scholar were searched. Keywords included *nurses, educator, simulation, barriers,* and *hospital setting.* This section of the proposal will include a discussion of the conceptul framework for the study and literature

related to (a) history of simulation, (b) frameworks for nurse educators, (c) patient simulators for experiential learning, (d) new graduate nurse, (e) transfer of learning, and (f) barriers to using simulation.

Conceptual Framework

This qualitative study is framed using the constructivist theory. Constructivism is a theory focused on how people learn (Merriam, Caffarella, & Baumgartner, 2007). The conceptual definition of constructivism is focused on how human learning is constructed and built on previous knowledge (Merriam et al., 2007). The key concept is learning should be an active process in which learners' construct ideas or perceptions based on their current or past knowledge (Merriam et al., 2007). According to Shin, Sok, Hyun, and Kim (2015), active learning refers to a teaching and learning strategy based on the experiential learning theory. It promotes a student-centered approach whereby the student is responsible for learning, and the nurse educators function in the role of the coach (Shin et al., 2015).

Simulation promotes active learning and potentially stimulates a deeper understanding of how the technology supports learning (Disher, Burgum, Desai, Fallon, Hart, & Aduddell, 2014). A significant role of nurse educators is creating active-learning processes in settings where nursing is taught such as the classroom, the skills lab, and the clinical environment. Knowledge acquisition is the desired result of the process of learning (Brandon & All, 2010). According to Marshall (1998), constructivists believe

that knowledge is not copied from something in the universe, it is formed from previous experiences that result in gained knowledge.

Educators who have adopted constructivist methods of teaching confirm that when learners construct their knowledge, they comprehend and can apply what they have learned (Harris & Graham, 1994). Advances in what is known about teaching and learning in nursing education result in a change from traditional lecturing to learner-centered teaching (Ellis, 2016). According to Ellis, learner-centered teaching (LCT) is a framework ingrained in constructivism that includes many different teaching approaches. Using LCT, the educator can guide the students in constructing meaning from what they have learned and reflect on their learning process. Within the constructivist tradition, students become invested in their learning and gain an understanding of how to construct new knowledge (Ellis, 2016).

The constructivist position termed by Driver, Asoko, Leach, Scott, and Mortimer (1994) explained how knowledge is not transferred from one person to another but is actively constructed by the learner. From the constructivist perspective, learning in the classroom settings requires well-designed real-world experiences that test the learners' prior knowledge and encourage learners to reorganize their theories to gain new knowledge (Driver et al., 1994). An important feature of constructivist learning is that it requires more flexibility than traditional methods for education, especially in teaching and learning.

Constructivist ideas create challenges for educators who are expected to transition from traditional methods to innovative approaches (Gash, 2015). Nurse educators are responsible for ensuring that nurses remain competent in their practice. Using the LCT approach rooted in constructivism, nurse educators can identify how nurses construct meaning in their practice. The educator can involve the nurse in learning activities that assist in the nurse's ability to reflect and gain new knowledge. Nurse educators can assess competencies using LCT, and give immediate feedback to support learning (Ellis, 2016).

History of Simulation

Current methods of simulation are the result of advances in aviation training, computer science, and healthcare teaching (Palaganas, Epps, & Raemer, 2014). According to Decker, Caballero, and McClanahan (2014), the history of clinical simulation in nursing has been well documented in the literature. In 1911, Mrs. Chase, or the Chase Hospital Doll, was the first training mannequin to be used primarily for nursing education (Aebersold, 2016). Aebersold (2016) explained that Mrs. Chase was used to teach nurses how to dress, turn, and transfer patients. Developments in technology led to the creation of Arabella in 1914, which allowed nurses to practice injections (Aebersold, 2016). A male version of the mannequin was requested in 1914 by the U.S. Army to teach medical corpsmen the techniques of hospital care (Aebersold, 2016).

The simulation mannequin technology was further enhanced in the 1960s when Laerdal introduced Anne as the first realistic mouth-to-mouth resuscitation training mannequin for learning CPR. In the late 1960s, a computer-based electronic dummy

SimOne was developed that could simulate a variety of the human body functions (Basak et al., 2016). Simulation technology did not become popular in undergraduate nursing education programs until the late 1990s. By the mid-2000s simulation technology was incorporated into many nursing programs. Faculty began to realize that the technology could be used as a teaching resource for the student to practice skills, critical thinking, and decision making (Hayden, Smiley, Alexander, Kardong-Edgren, & Jeffries, 2014).

Over the years, simulation techniques continued to evolve from low fidelity to high-fidelity technologies (Basak et al., 2016). Manufacturers such as Laerdal now produce high-fidelity, full-scale manikins that are being used for multidisciplinary healthcare training and education. Simulation manikins and software offer valuable resources to students and provide clinical situations, emergent or otherwise, without exposing patients to undue risk. Currently, health care students and practitioners' educational needs are often supported with very sophisticated high-fidelity mannequins (Aebersold, 2016; Chee, 2014).

New patient safety requirements and the need for innovative modalities to educate clinicians drive clinical simulation forward (Aebersold, 2016; Decker et al., 2014; Hayden et al., 2014). Aebersold (2016) identified that educational simulation focuses on the transfer of learning, the development of skills, and how to apply both knowledge and skills to the practice setting. The advancement of simulation technology has challenged nurse educators to embrace the power of simulation and understand the critical role it plays in patient safety (Aebersold, 2016).

Frameworks for Nurse Educators

In the healthcare field, simulation has been used for instruction and learning procedural skills, clinical integration of procedural skills, and teamwork for competency assessment (Groom, Henderson, & Sittner, 2014). As the nursing profession continues to advance, the roles and responsibilities of the nurse educator continue to expand (Taibi, & Kardong-Edgren, 2014). It is crucial for educators to have a framework that can be used to plan, implement, and assess simulation used for teaching strategies in nursing education (Von Colln-Appling & Giuliano, 2017; Groom et al., 2014; Jones, Reese, & Shelton, 2014). In my study, there is a focus on the role and responsibilities of the educator. The educators' role has shown a need for reflective abilities, knowledge of simulation as teaching pedagogy, knowing students' capabilities, and a philosophy of learning (Jones et al., 2014).

According to Jones et al. (2014), the educators' values and attributes are vital to adopting innovative technologies. The educator framework will help to clarify the role of the educator and better understand what drives his or her decision to use traditional methods instead of simulation. Student and educational practices on the five simulation design characteristics (goals, student support, problem-solving, fidelity, and debriefing) give direction for gathering an opinion about simulation usage (Jones et al., 2014). Groom et al. (2014) explained that objectives are described as giving guidance to the learner in preparation for the simulation experience. Orientation supports students by providing them with information on the simulation experience. Simulation levels range

from simple to complicated in order to allow students to problem solve clinical situations. The concept of fidelity is quantified as low, moderate, and high-fidelity. Debriefing occurs when the simulation experience has ended and involves the student and the teacher reviewing what happened during the simulation.

The literature suggested that simulation use in healthcare is not a new occurrence; however, it is one that is increasing in popularity (Mariani & Doolen, 2016). The framework described by Chee (2014), and Clapper and Kardong-Edgren (2012) demonstrated how deliberate practice is used to support nursing education. The intentional practice has been an essential concept in effective simulation learning. The critical reflection concept causes the learner to seek out new learning experiences and ongoing reflection allows the learner to evaluate information learned (Clapper & Kardong-Edgren, 2012). A national survey identified that nursing faculty reported spending 69% of their clinical time examining the skill performance of nursing students. The study explored how simulation can be used to implement deliberate practice within the simulated setting and that educators need to be aware of specific factors when using deliberate practice. Chee (2014) suggested that with the development of primary standards, educators have more accountability in ensuring that education is based on sound rationale, outcomes, criteria, and guidelines.

Jones et al. (2014) conducted a review of the current state of the science of the NLN/Jeffries simulation framework on the teacher construct developed in 2003, and suggested changes for use of the framework. The literature explained the first

NLN/Jeffries framework had been used by a multitude of scholars and students since its development and has been revised over the years, including the change of the teacher role to the facilitator role, which is different depending on the learning environment. The literature showed five critical areas are needed for educators to teach simulation: (a) a foundation in experiential learning, (b) the ability to develop clear objectives, (c) experience in facilitating learning, (d) sufficient time allotted for the simulation experience to take place, and (e) faculty development that focuses on a learner-centered versus instructor-centered teaching. According to Groom et al. (2014), there are five critical subcomponents identified in the simulation design characteristics: objectives, fidelity, problem-solving, student support, and debriefing.

Patient Simulators for Experiential Learning

Since the turn of the century, educators have experimented with experiential learning practices such as service learning, problem-based learning, adventure learning, and simulation and gaming (Kolb, Kolb, Passarelli, & Sharma, 2014; Poore, Cullen, & Schaar, 2014). The use of experiential learning has been identified as a vital component of student growth and education based on validated literature (Kolb et al., 2014). The research showed that there is a link between theory and practice when simulation includes feedback, debriefing, and guided reflection (Poore et al., 2014). Hatala, Cook, Zendejas, Hamstra, and Brydges (2014) explained that feedback is recognized as a useful component in clinical education.

Feedback is used as a method to provide information about the learner's performance. According to Reed (2014), reflection allows health care providers to make sense of personal experiences and aid them to learn and develop new understandings and views about their practice. Also, Reed described debriefing as a vital feature of simulation-based education. During a debriefing session, participants are directed by a facilitator to reflect on what occurred during the simulation experience. The goal of reflection is to lead participants to combine prior learning with learning that occurred during simulation to transfer knowledge to future situations (Reed, 2014). Waxman (2010) explained that nurse educators should compose an objective-driven scenario to establish learning outcomes. Using the HPS as a tool for experiential learning provides a mechanism to support clinical decision-making, exercise skills, and observe results for clinical decisions (Poore et al., 2014).

Kolb's Experiential Learning Theory (ELT) is a guide for simulation-based education. The four stages are concrete experience, reflective observation, abstract conceptualization, and active experimentation (Beddingfield, Davis, Gilmore, & Jenkins, 2011; Kolb, 1984). Simulation activities involve actual experiences of teaching and learning new skills, reflective observation of the learning process, abstract conceptualization of the learning process, and active experimentation with applying a new skill. ELT is defined as the process whereby knowledge is formed through a combination of two dimensions, grasping and transforming the experience. Simulation allows nurses to apply the academic theory to the actual hands-on skills required to care

for the patient and to understand how these skills relate to the care given the patient. The simulation setting allows nurses to practice needed skills and develop both confidence and competence to strengthen clinical performance (Alexander et al., 2015; Lucas, 2014).

A study released by the NCSBN revealed that up to 50% of simulation could be substituted for traditional clinical practice (Alexander et al., 2015). Zigmont, et al. (2015) identified that hospitals are facing a growing problem with nursing orientation and transitioning nurses into practice. Zigmont et al. conducted a study using an experiential learning approach following the implementation of the Learning Outcome Model, including simulation and standardized patients, to increase RN competency in a shorter period of time. The introduction to hospital practice was revised for 153 RNs who participated in the study over one year. Orientation time for new and experienced RNs decreased from 37% to 34% resulting in a gross savings of $702,270.

Integrating experiential learning through simulation resulted in RNs being more prepared, improved communication among administrators, staff, newly oriented employees, and resulted in a significant cost saving for the team (Zigmont et al., 2015). Implementing a similar program at Summit University Hospital may help to support the development of new nurses entering the organization. Aldridge (2016) explained that high-fidelity simulators consist of computerized full-body manikins that are programmed to give real-time physiological changes to make the learning experience as real as possible.

Horsley and Wambach (2015) conducted a study to determine if educator presence had an impact on the learners' level of state anxiety, self-confidence, and clinical performance during a summative evaluation using clinical simulation. The study provided evidence that suggests educators should position themselves in a control room with a one-way mirror during simulation evaluations (Horsley & Wambach, 2015). A summative assessment based on a pretest and posttest measurement of the experimental group suggested that learner anxiety increased when the faculty was present during this study. There were limitations to the study because the sample size was small. Despite the significant temporal change in state anxiety levels, nursing faculty presence did not influence state anxiety, self-confidence, clinical performance, or satisfaction at posttest (Horsley & Wambach, 2015).

New Graduate Nurses

According to Thomas and Mraz (2017), new graduate nurses experience transition shock when they move from the student role to the professional nurse role. Through the delivery of holistic, safe care, nurses are expected to demonstrate competency in skills and decision-making (Thomas & Mraz, 2017). Reem, Kitsantas, and Maddox (2014) noted that 10% of the nursing workforce in hospital settings is composed of new graduate nurses (NGN) and this number is expected to rise as aging nurses retire. The NLN recognized that all nurses should be equipped to meet healthcare industry needs (Everett-Thomas et al., 2015). Service industry reports, however, have indicated that new graduates are not prepared to practice in the current healthcare environment, and their

competencies are in question; only 35% of new RNs meet entry-level clinical judgment expectations (Everett-Thomas et al. 2015; Richardson & Clamans, 2014).

In the U. S., 90% of nurse education leaders believe that new graduates are prepared to enter the workforce while 90% of nurse leaders in the hospital setting do not agree (Hommes, 2014; Letourneau & Fater, 2015; Reem et al., 2014). Research studies have confirmed that new nurse graduates are neither ready to care for high acuity patients nor are they sufficiently qualified to recognize or intercede in a crisis (Letourneau & Fater, 2015; Reem et al., 2014; Richardson & Clamans, 2014). Complicated healthcare conditions are challenging hospital-based nurse educators to find effective ways to prepare nurses to care for patients (Disher et al., 2014; Everett-Thomas et al., 2015).

Hommes (2014) acknowledged that improvements in competence and confidence are seen with the use of simulation in orientation for the NGN. High-fidelity simulation (HFS) is used to supplement clinical learning, and providing critical thinking and psychomotor learning opportunities in low and high-risk clinical environments (Hommes, 2014; Lucas, 2014). The use of simulation has been documented as an effective educational strategy for training nurses in the care of patients (Hommes, 2014) Simulation as a pedagogical strategy has proven useful for bedside nurses and their recognition and treatment of deteriorating patients (Disher et al., 2014). Simulation has aligned to a rise in nurse self-confidence and competence in identifying early signs of clinical changes in the patients' conditions, thus improving patient outcomes (Disher et al., 2014; Hommes, 2014; Lucas, 2014). Adding simulation to the orientation process for

the NGN can assist with making a successful transition from education to practice by
providing a safe environment where novice nurses can improve their clinical and critical
thinking skills without harming patients (Disher et al., 2014; Everett-Thomas et al.,
2015).

Transfer of Learning

Roh, Kim, and Kim (2014) identified that one of the issues in nursing is there is
not enough hands-on practice in the classroom and inadequate time for repetition of
skills. Due to increased demands to transform nursing education, nurse educators look for
teaching strategies that will create an active learning environment. According to
Zulkosky, White, Price, and Pretz (2016), making clinical decisions is critical for
practicing nurses. Simulation is one method used for nurses to practice making decisions
in a structured environment. Advances in technology have had a considerable effect on
the progress of teaching and learning methods used in educational settings (Basak et al.,
2016). Lucas (2014) identified that simulation settings allow nurses to practice needed
skills, develop confidence, competence, and strengthen clinical performance. Study
results did not show a difference in preference for lecture versus simulation learning
(Lucas, 2014). Both quantitative and qualitative studies specify that high-fidelity
simulation skill and knowledge transfer to the clinical setting enhance the safety of
practice through developed conceptual understanding and critical thinking (Richardson &
Clamans, 2014).

Some researchers still question whether the transfer of learning occurs from HFS clinical to the traditional clinical setting (Grierson, 2014; Kirkman, 2013; Robinson & Dearmon, 2013). Several studies explored how simulation is used to identify and improve preparation for recognizing and responding to deteriorating patients (Disher et al., 2014; Fisher & King, 2013). The review demonstrated that simulation enhances confidence, clinical sense, knowledge, and competence. Hommes, (2014) described how simulation increases safety and reduces errors, improves clinical judgment, and is useful for educating and evaluating specific clinical skills. Growth and development occur when educators use simulation experiences for formative assessment (Harder, 2010). Kirkman (2013) identified that HFS had been demonstrated to be a useful teaching tool used to improve nursing clinical judgment. The literature has found several reasons to support the use of simulation as a learning method for nurse development.

Nurse Educator Preparation for Use of Simulation

Roh et al. (2014) conducted a study to evaluate the role of high-fidelity simulation in preparation for nursing practice. The researchers suggested that problem-based learning (PBL) and simulation-based learning are strategies combined in the education of health professionals. PBL and simulation connect to form the principles of constructivism and collaborative learning. Hagler and Wilson (2013) identified high-fidelity simulation as an essential component in nursing education, noting that nurse educators must continually define, implement, and test teaching-learning strategies to promote efficient development of self-confidence and clinical competence. Researchers in the Beddingfield

et al. (2011) study examined the difference between traditional clinical experiences and HFS as a teaching method for student development. HFS has been recommended as an innovative teaching-learning strategy to enhance the transfer of self-confidence and competence to the clinical nursing environment (Beddingfield et al., 2011). Hospital nurse leaders are interested in simulation to reinforce novice nurse residency programs and diminish the theory to practice gap (Franklin, Burns, & Lee, 2014).

Barriers to Using Simulation

Simulation is becoming pervasive in nursing education (Taibi & Kardong-Edgren, 2014). Kim et al. (2017) reported that within the past 15-20 years there had been a significant increase (1000%) in the number of nursing programs in the U.S. that have implemented simulation into the program. The literature suggested that from 2002 to 2010, the number of nursing programs using simulation grew from 66 to 917 (Kim et al., 2017). Various authors have shown that the recent report by the NCSBN suggested that simulation can efficiently replace up to 50% of the clinical time (Kim et al., 2017).

Simulation places stresses on the technical ability of students and nurse educators because it engages actively versus passive instruction (Adamson, 2015; Beroz, 2017; Hayden et al., 2014; Taibi & Kardong-Edgren, 2014). Faculty restrictions, medication errors, client safety, inadequate instructional time, and the lack of clinical placements have forced nurse educators to pursue and incorporate technology-driven simulation strategies (Davis, Kimble, & Gunby, 2014); Smith & Hamilton, 2015; Taibi & Kardong-Edgren, 2014). Everett-Thomas et al. (2015) acknowledged that simulation could aid with

helping the novice nurse transition from learning to practice. Nursing ability is achievable when the simulation is used to build competence and confidence (Lucas, 2014).

The literature supports that nurse educators have many barriers to adopting this innovative technology, including lack of training for staff, lack of time, fear of technology, lack of resources, deficiencies in space and equipment, lack of financial support, insufficient simulation manikins, added workload, and manikin maintenance (Al-Ghareeb & Cooper, 2016). Also, the initial costs of buying high-fidelity simulators are significant, with models costing as much as $60,000 (Aldridge, 2016). While there is a substantial amount of money spent on equipment, little money is spent on educator support and development (Al-Ghareeb & Cooper, 2016; Beroz, 2017; Davis et al., 2014; Hayden et al., 2014; Kim et al., 2017; Taibi & Kardong-Edgren, 2014).

Cook (2014) and Kim et al. (2017) explained that successful implementation of simulation requires support for educators. The National Simulation Study found that teacher education for simulation pedagogy is often underfunded or ignored with the result that many nurse educators lack formal training and have only received training by vendor representatives who sell equipment (Beroz, 2017). In the study, the importance of faculty and program development needs were acknowledged. Educators were coached and trained in using simulation techniques as a teaching strategy to improve how information is delivered to students (Beroz, 2017). According to Foronda et al. (2013) and Kim et al. (2017), many nurse educators continue to struggle with how to incorporate simulation into learning, get the most out of its use, conduct interdisciplinary experience, assess the

learner, and evaluate the effectiveness of simulation-based learning experiences. It is imperative to understand educator beliefs with using simulation to be able to influence its use and to address barriers (Al-Ghareeb & Cooper, 2016).

When implementing simulation, Aldridge (2016) and Beroz (2017) suggested the need to have dedicated trained educators to provide consistent simulation experiences and:

- Determine critical information educators need to know to perform simulation

- Provide adequate time and support for educators to learn simulation

- Plan simulation activities with other educators who teach

- Use simulation in the classroom setting

- Design simple scenarios first and, then advance to more complex scenarios

- Use low fidelity manakins when possible because high-fidelity require more experience to use

- Use preprogrammed scenarios whenever possible

- Hire a simulation specialist to support educator development and use of simulation

These suggestions will help to address some of the barriers faced by educators. Orientation should include the International Nursing Association for Clinical Simulation and learning (INACSL) standards of best practice, and the NCSBN developed faculty and

program checklist. The literature has showed many benefits of simulation, and they are well documented. Benefits include safe deliberate practice, enhanced clinical reasoning, enhanced communication skills, development of leadership and teamwork, improved decision making and critical thinking, situation awareness improvement, and safe medication administration (Al-Ghareeb & Cooper, 2016; Davis et al., 2014; Kim et al., 2017). According to Oermann (2014), the goal of the scholarship of teaching is to understand the best methods for learning and foster that learning.

While there are many methods of simulation used, Smith and Hamilton (2015) discussed how virtual simulation is one method introduced as a teaching strategy. With virtual simulation, the operator can communicate through the device using graphical displays, auditory indicators, and touch vibrations. Virtual simulation can be efficient when implemented in clinical preparations for skills related to communication, critical thinking, and collaboration. Based on multiple studies, Smith and Hamilton suggested that clinical skills are enhanced with virtual simulation. Study results identified that learner scores were significantly higher in retention performance when different teaching strategies were used. Virtual simulation is another method of simulation that can be used to strengthen nurses' skills and improve the safety of the patient.

Sustainability of Simulation

According to Adamson (2010), faculty have reported they do not have enough time to prepare and plan to use simulation. There is limited support from administrators, peers, and the technology department when it comes to supporting educators with using

simulation; also, defective equipment is a barrier. Sustaining the use of simulation in the nursing program requires administrators to address the obstacles that prevent faculty from using the technology to support student learning. Suggestions for maintaining simulation include offering faculty paid hours to plan lessons; provide adequate training to faculty and ensuring additional technology resources are available when troubleshooting is needed. Horsley and Wambach (2015) reported that faculty who commit to using simulation create an ideal learning environment for students. Resolving barriers will help to ensure that simulation use is efficient. Cook (2014) recommended that adding simulation to the nursing program curriculum will help to support its use. Simulation programs stationed in the hospital support efforts to improve patient safety. Dedicated simulation programs in the hospital or health care system can offer many benefits to the organization, the staff, and patient outcomes (Manos & LeMaster, 2014).

Simulation Scenarios

According to Garrett, MacPhee, and Jackson (2010), there are many ways to design HFS scenarios. Necessary plans for the design should include learning objectives that are clear. Howard (2014) explained that there are three phases to developing scripts. The first phase is planning and pre-briefing. This stage includes all the activities that need to happen before the scenario is implemented. The second step is scenario implementation. The learner takes part in the scene and delivers care to the simulated patient. The third phase is debriefing and evaluation. During this period, the learner reflects on his or her performance (Howard, 2014). O'Brien et al. (2015) highlighted best

practices for creating simulation scenarios that determine validity for use in assessing performance competency are grounded in current validity theory. Explicit descriptions of protocols based on best practices for designing and developing simulation scenarios are needed in the field of competency assessment.

Blum, Borglund, and Parcells (2010) suggested that nurse educators must continually identify, implement, and test teaching-learning strategies to promote the efficient development of confidence and clinical competence of their students. HFS has been recommended as an innovative teaching-learning strategy to enhance the transfer of student confidence and ability to the clinical nursing environment (Davis et al., 2014; Kardong-Edgren, Lungstrom, & Bendel, 2009; Limoges, 2010). While faculty tends to incorporate the use of integrative modalities in the hopes of appealing to the current generation of technologically inclined students, this decision has not been supported by sufficient evidence for first-level students. The literature has demonstrated many advantages to HFS, especially its capability to offer a safe environment for improving competencies through repeated practice (Beddingfield et al., 2011; Howard, Englert, Kameg, & Perozzi, 2011; Swanson et al., 2011).

Also, teachers need to learn about the nurses and students they teach to understand how cultural beliefs will have an impact on learning (Adeniran & Smith-Glasgow, 2010). Through simulation, students can experience caring for diverse populations. Using simulation, students learn to recognize diversity, commonalities, and the blending of cultures. Cultural diversity training will aid students to provide care to a

diverse group of patients through using a comprehensive approach (Haas, Seckman, &

Rea, 2010). Roberts, Warda, and Garbutt (2014) explained that cultural competence is

currently offered to teach practitioners how to care for diverse patient populations.

Academic institutions are including cultural competence in the curricula. Several

programs guide teaching efficient simulation for cultural competence (Roberts et al.,

2014). More research is needed to support using and evaluating simulation technology to

explain diversity and cultural competence.

　　　In summary, using simulation offers an opportunity to connect classroom theory

with clinical experiences. According to Stroup (2014) and Robinson and Dearmon

(2013), the fast-paced work environment requires nurses to be prepared to adapt to the

environment. Stroup explained that educators and researchers face challenges with

creating methods to evaluate the effectiveness of simulation studies. Meeting the

expectations of the workplace needs exposure to teaching strategies that focus on the

development of critical thinking, self-confidence, and experiential learning (Poore et al.,

2014). Appropriately designed simulation experiences enhance clinical reasoning and

transition into practice (Beroz, 2017). Scholarly articles were reviewed and evaluated to

determine if evidence-based guidelines for scenario development exist and whether the

best practice was evident. The literature review showed that simulation can be a useful

method to teach nursing skills in many areas of nursing practice.

Implications

The research study revealed there are challenges and barriers that prevent nurse educators from using simulation in the hospital setting. The findings of the study identified the need for additional educator training and resources that are beneficial to the development of educators and practicing nurses in the hospital setting. This case study will add to the discussion on adopting simulation as a teaching strategy. The study findings helped to create a professional development program for nurse educators that includes simulation training. The program will offer ways to enhance job skills, increase job- related knowledge, information, and increase efficiency in practice. Implications for positive social change include using simulation to improve the development and competence of nurses in the hospital setting, thus helping to ensure that the patient have a positive outcome based The professional development project that emerged from this study includes guidance for changing how competency assessments are done for nurses and the development of a dedicated simulation program for the education department. This project can benefit the education department and the practicing nurses' growth leading to positive social change for the profession.

Summary

Studying how simulation is used to evaluate nurse competencies provides the nursing discipline with insight into the use of how this technology helps to ensure that nurses have the skills needed to care for patients. Identifying what barriers exist to nurse educators' use of simulation provides the nursing discipline with insight on effective

ways to integrate the technology into the evaluation of nurse skills and competency. Using the HPS as a tool for experiential learning provides a mechanism by which nurses can participate in clinical decision-making, exercise skills, and observe outcomes for clinical decisions. The use of low and high-fidelity patient simulation and other forms of simulation provide a valuable addition to traditional nursing education. Using simulation offers the nurse educator a chance to assess new and experienced nurses' psychomotor skills and critical thinking abilities. The literature identified simulation as a recommended teaching and learning strategy for the education of nurses. Identifying and resolving challenges to nurse educator use of simulations helps to ensure that simulation use is effective and efficient. The findings of this project study inform strategies to enhance nurse educators' use of simulation to support nurses in the ongoing attainment and maintenance of knowledge and skills.

In summary, there was a problem identified at the local research site in that the nurse educators did not consistently use the simulation lab to support nurse development. Literature supports the use of simulation as a teaching strategy for nurses in the hospital but its use as a method for assessment of nursing competencies is still lacking. Despite evidence of the value of simulation, educators still select traditional teaching methods to evaluate nurse competency. Understanding educators' perceptions on using simulation as a learning method provides insight into the problem. Hospitals have a responsibility to validate that nurses have the knowledge and experience to make strong clinical judgments that maximize patient safety. Simulation technology is one method that can be

used to meet the hospital's requirement. The next section includes the methodology used to conduct the case study.

In Section 2, I provide an explanation of the methodology used to gather the data that were used to create the project. In Section 3, I provide a description of the project, and in Section 4, I discuss my final reflection and conclusions of the research project.

Section 2: The Methodology

Introduction

I conducted a qualitative case study research design by using small pieces of data and, little by little, combined and connected the pieces to form broader, more general descriptions and conclusions related to the problem (see Creswell, 2012, 2014; Lodico, Spaulding, & Voegtle, 2010). The purpose of this project study was to identify nurse educators' perceptions of the practical use of simulation to evaluate nurse competencies. I examined the nurse educator practices and decision-making process when selecting teaching methods for the adult learner. The data provided information about what methods are most effective to support learning and assessed nurse critical thinking skills.

I conducted a comprehensive study of the nurse educators' approaches to teaching and how simulation technology is incorporated into assessing competence. The study was instrumental in the identification of potential areas where positive changes can be made to support the use of simulation technology in the education department. Qualitative data included information obtained from face-to-face interviews and a document review.

Research Design and Approach

This study was a qualitative case study. Creswell (2012) stated that qualitative research provides the structure to examine people, places, and events as they occur in their natural setting. Further, qualitative research allows for inductive reasoning through obtaining the information from those in the natural setting positioned and knowledgeable to offer insight (Creswell, 2012; Lodico et al., 2010; Merriam, 2009). In this study, I

learned that educators use various teaching methods to promote learning and assess

learners' competence. I conducted a comprehensive examination of the step by step

approach used by educators to select educational material and how it is delivered.

Collecting this information from the educators assisted me with putting together accurate

data and developing a better understanding of the phenomenon. In qualitative research,

concrete data pieces from the participants are broken down and reassembled into a

broader understanding of the phenomenon. The foundation of qualitative research lies in

the educational approach to social reality and the explanation of the lived experience of

human beings (Holloway & Wheeler, 2013; Saldana, 2014).

Although other research designs and methods were considered, I determined that

a qualitative case study was the most appropriate for this study. According to Saldana

(2014), a case study allows for an in-depth examination of a single unit for analysis and

this could be one person, one group, one event, or one organization. The case study

allowed for in-depth investigation without having to study many settings or participants.

An ethnographic design was not right for this study because ethnographers usually study

cultural themes and their focus is to add to the knowledge about culture and specific

cultural topics. Grounded theory offers a broad approach or explanation of a process and

subsequent development of a theory, which are not the purpose for this study (Creswell,

2012). Also, in studies using quantitative methods, the researcher focuses on problems

based on trends or the need to explain why things occur or how one variable affects

another (Creswell, 2012). These types of designs and methods were not right for the identified study.

The study focus was to find out if there were barriers that nurse educators experienced that impeded their full engagement of using the simulation equipment as an instructional tool. The case study design allowed me to discover if there were common themes experienced by nurse educators (Baxter & Jack, 2008; Stake, 1995). A qualitative case study provided an opportunity to examine the problem from the perspective of nurse educators who worked in the education department in the healthcare setting. An instrumental case study is used to explore some issue that is beyond the specific case but is dependent on the case for its understanding (Baxter & Jack, 2008; Stake, 1995). In this case, the focus was on the educators' perception of using simulation to assess nurse competencies in a hospital setting as part of the nursing practice instruction. The case study allowed me to explore the problem in depth through the collection of information using open-ended questions during face-to-face interviews.

Participants

Nurse educators in the nursing education department at Summit University Hospital were the target population for the study. I asked 12 nurse educators, including the director, if they would be willing to participate in the study. There was a total of 9 educators who agreed to participate in the study. The final number of participants was eight. Eight nurse educators met the criteria and were selected. One educator who offered to participate was excluded because she did not have 2 years of experience working as an

educator in the facility. Researchers suggest that 8-10 participants is an adequate number to give in-depth knowledge in a qualitative study (Saldana, 2014). My intent for the study was to learn about how nurse educators perceived the use of simulation.

I used a purposeful sampling technique, which means that I intentionally selected the participants for the study. I wanted to know about nurse educator teaching strategies, so I focused on nurse educators as study participants (See Appendix D). The selected study participants provided me with information about the different nurse skills they are required to assess for initial and annual trainings and the methods they use.

I contacted the education director to arrange an appointment to discuss the research project. I conducted a phone meeting because the director was not able to meet face-to-face. When the meeting ended, the director suggested that I attend her next staff meeting to present the project to the educators. The education director sent me an email with the date and time for me to attend her upcoming staff meeting.

I recruited participants by conducting a presentation of the study with the educators and then sending an email asking if they were willing to volunteer to participate. A power point presentation was created for the meeting, but the room location did not have computer technology, so the information was presented using a hard copy. The presentation lasted for 30 minutes; once the presentation was over, I asked if there were any questions. Some of the educators wanted clarification on the process for the document review. I explained that each nurse would have to provide 10 competency

documents for review after the interview. The meeting ended with me thanking the educators for listening to my presentation.

The education director provided contact information for nurse educators in the department. Once contact information was received, I sent a recruitment email about the project and requested a reply if they wanted to participate in the research study. The recruitment email explained how the face-to-face interviews would take place and the expected timeframe for the meeting. I also sent the same email from Walden's email account. I instructed the educators to reply to the Walden school email and not the facilities email since this was a school project. Initially, five participants responded to the email within a few weeks of the request. I sent them an email requesting dates and times when they were available to interview. Once they responded with dates and times, then the interviews were arranged based on their availability. The additional three participants took more time to recruit. After sending emails and speaking with potential participants on the phone about the project, they decided to participate.

All participants who took part in the study completed a demographic sheet. Using a software program, demographic information was collected, categorized, and reviewed to determine if there were differences and similarities that existed among educators (See Appendix D). There were a variety of variables identified, ethnicity, education, full-time status, years as an educator, and years in the profession with selected teaching methods. I established a professional researcher-participant working relationship with the study participants. According to Wang and Geale (2015), there is a better understanding

between the participant and researcher when they both have an interest in the content studied. Establishing a trusting working relationship with the participants was essential throughout the research process. Participants were made aware that I worked at the organization as a nurse manager. I explained to participants that for this study, I was functioning in the role as a student researcher.

Ethical Considerations

Ethical consideration was considered for all participants who volunteered to participate in the study. According to Bishop-Clark and Dietz-Uhler (2012), one of the most critical factors in the data collection phase is the ethical treatment of the participants. I created a respectful relationship with participants by being open and honest about my study and sharing a willingness to answer questions. I provided my contact information for all participants in case they had additional questions. All participants were shown dignity and respect. Prior to undertaking any research, approval was received from Walden University Institutional Review Board (IRB), as well as Summit University Hospital. Lodico et al. (2010) explained that IRB committees require the researcher to submit copies of the informed consent documents obtained for the study. Information included in the consent is a thorough depiction of the plan for participants, description of potential risks, the voluntary nature of the study, and a statement ensuring confidentiality. Written approval was obtained from the research approval department at Summit University hospital. Once approval was received from Walden's IRB and the hospital's IRB, data collection began.

There were four primary ethical concerns considered for the study (Lodico et al., 2010). The first is informed consent; participants of the study were informed that the study was voluntary and they had the option to participate or not without fear of reprisal. The second issue is the right to privacy; participants were made aware of their right to have their data remain private and confidential. The study facility required each participant to sign an acknowlegement of notice of privacy practice document that they received. I informed all participants that a code name was used to protect their identity, The third problem is the risk of harm.; participants were aware of the right to be protected from harm and that the study involved minimal risk and precautions were taken to protect their information. The fourth issue concerns debriefing; participants have the right to know what the study is about and the position they will play in the research (McCann & Clark, 2003, p. 18). The informed consent provided a thorough explanation of the study. These ethical considerations were addressed to protect the rights of the participants in the study. A detailed explanation of the study was provided to all potential participants along with a statement of the purpose of the research study (Lodico et al., 2010, p. 206). All collected interview data were stored de-identified on a password-protected personal computer that only I have access to. The interviews were conducted at a mutually agreed-upon location where there was privacy.

All participants were required to sign an informed consent, a health insurance portability and privacy form (HIPAA), and a notice of privacy protection (NOPP) form prior to participating in the study. The informed consent contained the following

information: the purpose of the study, procedures, informed consent process, potential

risks/discomfort, potential benefits, and the alternative to participation. I assured the

participants that participating in the study would not have an impact on their employment

in any way. I conducted a research study by acting ethically and responsibly.

Data Collection

After receiving approval from the IRB at Walden University (IRB number HP-

00080274) and Summit-University Hospital IRB, I was able to proceed with the data

collection. I conducted individual face-to-face interviews with nurse educators who

worked in the education department for 2 or more years, agreed to participate, and who

signed all consents. When meeting with the participants, a copy of the recruitment letter

was given. The consent, HIPAA, and the NOPP forms were reviewed and signed.

Because the witness line was not removed from the consent, a witness was required to

review the consent process and sign for the first five interviews. The gatekeeper for the

facility requested a revision from Summit's IRB, and the witness line was removed for

the last three interviews. The consent covered all required details of the study, including

background information, procedures, voluntary nature of the research, risk, and benefits

of being in the study, as well as how privacy and confidentiality is maintained. The

facility required additional research forms to be completed as part of the study. The forms

included: a research-informed consent progress note, notice of privacy practice form, and

a research master log. All the facility required forms were collected, scanned, and

uploaded onto a secure password-protected computer and backed up on a password-

protected USB port. I am the only one who can access the information. All consent forms were scanned onto a secure password-protected computer that only I have access to and uploaded onto a designated share point for review by the research compliance officer within 48 hours of conducting the interview. Additional copies were secured in a locked cabinet maintained by the gatekeeper for the facility. The facility requires that all research conducted at the site be assigned a gatekeeper. The gatekeeper is responsible for overseeing the application and IRB process and maintaining a record of all the required research forms.

When all participant documents were signed, the interviews began. Using open-ended interview questions, I was able to gain an extensive amount of information from the educators about their work in the department. A semi-structured interview tool was used to elicit responses from the nurse educators to address the research questions (See Appendix B). The interview tool incorporated the study's conceptual framework, constructivism theory, and focused on the educators' role and the active learning process. The components of constructivism were used as the basis for the development of the continuing series of questions. Asking open-ended questions is ideal when working with participants who are comfortable discussing their practice. This method allows for creative answers rich in detail (Creswell, 2012). All the participants were aware that I worked at the organization as a nurse manager. Before beginning the interviews, all the participants were informed by me that my role for the study would be me functioning as the researcher, and they would be the participants in the study.

Individual face-to-face interviews with nurse educators were ideal; the goal was to ask questions that produced data related to the research questions (Lodico et al., 2010). All interviews were audiotaped and later transcribed. The interviews took place on the dates and times agreed upon with the participants and lasted between 20-45-minutes. The interviews took place at mutually agreed upon locations with the participants. Some document reviews were conducted with the educators after the interview. Two educators who left me to review the documents on my own. The interview concluded with asking permission to contact the participant for clarification on information received during the recorded session. I asked if they have any further questions and thanked them for their participation in the study. Participants were also informed that they would receive a copy of the interview transcript to review for accuracy as part of the member checking process. Study participants were contacted by email one week after tentative themes were named to complete member checks of the first interpretation of the data. Member checking is a process where the initial findings are taken back to the participants for review. This review helped to ensure the accuracy of interpretations (Creswell, 2012). The transcribed data were uploaded into a qualitative software program for data analysis. The analyzed data were sorted into categories, and six themes emerged.

The second type of data collection conducted was a document review. Document access was obtained by requesting a document review from the educator responsible for completing the forms. The period for the document review was nurse educational competency records from 2016-2019. Selecting the right documents to make known

details that answer qualitative research questions (Creswell, 2012). More data sources

included a review of competency documents used for first and annual competency

validation assessments (See Appendix C). The forms were collected from the participants

who took part in the study after the interview was completed. All of the educators stayed

in the room to be a part of the document review, except two. Two educators provided the

documents and left me to review the documents on my own. Information obtained from

the document review consisted of the topic area, validation methods, and pass or fail

ratings (e.g., direct observation, skills checklist, simulation). This information was

helpful to show what methods of instruction were used by nurse educators when they

assessed competencies.

I reviewed a total of 30 documents. Examination of the documents supported the

interview comments by the educators on the types of teaching methods most frequently

used. In addition to collecting information from individuals studied, detailed information

can be gathered from other sources (Creswell, 2012). Collecting demographic data helped

to describe the participants in the study. During the data collection process, I used a

research log to keep track of the information reviewed. The document review information

was coded, and the information became evidence for inclusion in the data analysis and

triangulation process.

Data Analysis

I transcribed the audio recordings of the interviews into text data. Holloway and

Wheeler (2013) suggested that using an audio recorder is ideal because making notes

might disturb the participant. Each interview transcript page was numbered, labeled, and coded based on the audio recording number assigned. Also, the participant's name was not used, and a code name was assigned. No identifiable characteristics of participants were observable by anyone but me and the gatekeeper assigned by the facility. The transcribed data were reviewed several times to understand the meaning of the data. The information was stored on a password-protected computer; me and the gatekeeper were the only ones with access to the information. In addition to conducting a transcript review, the document review was used to enhance the accuracy of the data (Creswell, 2012). The data from documents were reviewed and categorized based on the topics and the teaching methods used, including the frequency of methods most selected by nurse educators.

A qualitative software program was used to organize and code the interview transcriptions, demographic, and competency document data collected. All transcribed data were uploaded into the software program. Once uploaded, the participants' interview answers were broken down into categories as they related to the interview questions. When the data were coded, a coded frequency report was generated. I continually reviewed the data results to better understand what the results meant and to provide an explanation of the analyzed data further. An interpretive thematic analysis approach allowed the data to be organized, analyzed, and managed systematically. The data were coded by assigning labels. After labeling the data, the codes were grouped into categories. Several codes were merged because of relationships, frequencies, and

underlying meanings. Each category was labeled with the study research questions, and

the number of coded responses were listed in the category group. Once the categories

were created, I tried to determine the relationship between the codes and how many times

a code was assigned to the data. Coding is the process of classifying different segments of

the data that describe related phenomena and labeling these sections using broad category

names (Lodico et al., 2010). The data were put into categories based on the number and

codes and the number of cases associated with the codes. Holloway and Wheeler (2013)

explained that the use of line-by-line coding shows information that both the researcher

and participant believe is important. Themes were identified and interpreted from the

categories created and based on the participants' quotes from the text data. Phrases and

sentences related to the research questions (Saldana, 2014). Researchers seek out words

or phrases used by the participants, called in vivo coding (McCann & Clark, 2003). Since

coding starts with the words of the participant, this prevents the researchers from

imposing their ideas on the data. Table 1 shows the codes that were identified in data

analysis.

Table 1

Coded Data

Research Question	Count	% Codes	Case	% Cases
(Q1) Exp Sim				
Sim/Computer	15	9.6%	7	87.5%
Florida	3	1.9%	2	25.0%
Ways to learn	2	1.3%	2	25.0%
Evaluate Comp	6	3.8%	4	50.0%
No sim exp	2	1.3%	2	25.0%
Training	8	5.1%	4	50.0%
(Q1) Initial/Annual				
Annual comp	3	1.9%	2	25.0%
Donna Wright	9	5.7%	4	50.0%
Comp options	22	14.0%	8	100%
Orientation	2	1.3%	2	25.0%
(Q2) Traditional				
Clinical skills	1	0.6%	1	12.5%
Education level	2	1.3%	2	25.0%
Teaching	25	15.9%	7	87.5%
ICU	1	0.6%	1	12.5%
(Q3) Use of sim				
Sim tech	2	1.3%	2	25%
IT techs	2	1.3%	2	25%
(Q3) Challenge/Barrier				
Challenges	26	16.6%	6	75%
Expensive equip	5	3.2%	3	37.5%
Advantages/ disadvantages	21	13.4	6	75%

Data Analysis Results

Data were collected to identify nurse educators' perceptions of using simulation.

Research questions focused on the perception of the nurse educators' use of simulation to

assess nurse competence. Findings from the analysis of demographic data are presented

here, followed by findings from responses to interviews, data from the document review, and field notes.

Demographic Survey

Demographic data provides an in-depth look at the participants and provides the characteristics of the educators working in the education department. Demographic data collection provided the study with the personal characteristics of the educator group. The type of collected data from the educator included: (a) code name, (b) gender, (c) ethnicity, (d) education, (e) years in nurse educator role, (f) full-time employment, and (g) years in the nursing profession. All participants were female. Analysis of the demographic data identified that eight females working in the education department from a variety of ethnic backgrounds. Five of the educators have a master's degree in nursing, and one educator has a master's degree in a health-related field. Two of the educators have doctorate degrees, one educator has a Doctorate in Nursing Practice, and the other has a Ph.D. All except one of the participants work fulltime and years in the role varies from three to twenty years. Five of the educators have been in the nursing profession for over 25 years. Table 2 lists the demographic characteristics of the participants.

Table 2

Demographics

Participant	Gender	Ethnicity	Education	Fulltime	Years	Profession
1	Female	Hispanic	MSN	Yes	3	39
2	Female	American	DNP	Yes	13	41
3	Female	AA	Ph.D.	No	7	22
4	Female	Dutch/German	MSN	Yes	20	27
5	Female	Irish A	MSN	Yes	3	23
6	Female	American	MSN	Yes	20	46
7	Female	American	MS/HSA	Yes	3	30
8	Female	AA	MSN	Yes	3	11

Note. AA=African American, Irish A=Irish American, MSN=Master of Science,

DNP=Doctor of Nursing Practice, PhD=Doctor of Philosophy, MS/HSA=Master of

Science Health Services Administration.

Interviews with Nurse Educators

Participants of the study were engaged and eager to discuss their experiences

working as an educator in the organization. Once the interviews were transcribed and the

document data tallied, themes began to emerge and showed a broader picture of the

phenomenon of how simulation is used. Participants were given code numbers to protect

their privacy, and the code numbers were used throughout the interview, transcription,

and analysis process. The following themes emerged as a result of the sorted data.

Themes

Findings from the themes that I have identified are related to the research questions. The interview responses helped me to better understand the nurse educators' perceptions of using simulation to assess nurse competence. The software program QDA Minor Lite assisted me in compiling data from the interview transcripts into categories, codes, description, counts, percentage of codes, and the number of cases. The frequency of the codes was used to sort the data into categories and create themes. The themes helped me to see the relationship of participant responses to the research questions. Appendix E is a visual sample of the coded themes.

I used three guiding research questions for the interviews: How do nurse educators decide whether to use simulation to assess nurse competency? How do nurse educators decide to use traditional methods of instruction to assess nurse competencies? What are nurse educators' perceptions of the advantages and disadvantages of using the simulation for teaching nurses in the hospital setting? Six themes emerged as a result of the data analysis: (a) experience with simulation, (b) initial-annual/types of teaching methods, (c) traditional methods of instruction, (d), simulation to assess competency (e) challenges or barriers, and (f) advantages/disadvantages to using simulation. An overview of these themes are as follows:

Theme 1: Experience with simulation. All participants had some experience with using simulation except one educator. She explained that she has used simulation technology to complete personal training requirements but has never used the technology

to teach, and one educator stated that she had not used simulation since working at the facility. Participants focused on their different experiences with using simulation. Educators were given a series of code numbers to protect their privacy, and the code numbers were used throughout the document review and analysis process. Participant 1 has been a nurse for 39 years and has worked in the education department for 3 years. She was sent to Orlando, Florida, to receive training from the state-of-the-art simulation center. When speaking about her trip to Florida, she discussed her plan to implement some of the simulation strategies received in her training.

> When you have all of the equipment, everything that you need, it just makes your life easier for you to learn and to train. My plan is for students to review the training videos and be better prepared when they come to her to do the hands-on demonstration.

Participant 2 has been a nurse for 41 years and an educator for 13 years. When asked about her experience with using simulation, she explained that she has used simulation and describes why technology is beneficial to teaching.

> Using simulation helps you better organize the educational material that you need to use, and sometimes you get some real-life experience. For example, think about mock codes, and then with the mannequin and van mannequins, they give you the actual sounds that you need to hear, so you do not have to go and listen to alive person. You have to do a demonstration, and it also gives you another way of instruction so that you can meet the needs of adult learners.

Participant 3 has worked as a nurse for 20 years and an educator for 7 years. She recently finished her Ph.D. and was eager to take part in the study. She explained that she has used simulation often in her career and discussed her recent experience with using the technology to educate.

> My experience starts with Mock Code training, we do that here where I work, and so all of our CPR recertification, CPR certification, ACLS certification, all of that is done through simulation and computer.

Participant 4 has worked as a nurse for 27 years and 20 years as an educator. Throughout her teaching career, she spoke about her past experiences with using simulation technology. She discussed how she had used simulation technology to teach students how to deliver a baby and also how to learn cardiac rhythms. She identified that many methods could be used to teach, and sometimes you have to combine teaching methods to get the best results for the students.

> I enjoyed using the sim experience, and we used it at the school where I taught, and we used it through maternity labor. We were able to take the new nurses through the delivery of the baby. Also used it in cardiac for heart rhythms, and they were able to hear sounds. People do not always go by reading but hearing it and seeing it can put somethings together.

Participant 5 has been a nurse for 23 years and has worked in the education department three for years. She shared in the interview that she has not personally used simulation to teach but explained that several other educators had used methods to teach

and assess competencies. Even though she has never used simulation, she was very knowledgeable about the types of methods used by some of the educators. She explains that the needs of the target audience drive teaching methods.

> We have some very basic simulation for things like catheter insertions, and we use arms for IV insertion and reviewing techniques for that type of thing. Then we have more complicated simulators. Recently, high-fidelity manikins were used to assess how well nurses were performing physical assessments. that we could listen to hear sounds and lungs, various sounds were available.

Participant 6 has been a nurse for 46 years and has worked as an educator for the past 20 years. She has used simulation in the past but feels like the technology is not supported in the organization. She shared in the interview that the OR training needs are different from nurses on the unit because they are required to know all of the different procedures and instruments.

> I have not used simulation since I have been here; I think it is difficult to get to also.

Participant 7 has been a nurse for 30 years and has worked as an educator for 3 years. Before starting the interview, she talked about how new technologies have changed nursing practice and education. She believes that her staff should be able to practice and be efficient with the equipment before the actual work with the patients.

> I try to use simulation as much as possible. Because I feel like it is better to practice with equipment or supplies or any situation as a dry run. When it is not

directly in line with alive patient, so I feel like they learn a little better because they are a little more relaxed.

Participant 8 has been a nurse for 11 years and worked as an educator for 3 years. She stated that she enjoyed using simulation and was eager to participate in a study that focused on its use. She identified that the facility does not have a large simulation lab. She attended a simulation conference in Orlando, Florida, and describes her experience and what she learned from the conference.

It makes things kind of look real. So… what I have done to assess competencies is to create scenarios. Like real-life scenarios using patients, using real equipment, and using the competency checklist and what we will do is go through a scenario to make it seem as real. We will run a mock code using a test patient for fidelity, and we will set it up throughout the whole hospital. Call it overhead as test code, have everybody who is going to respond for the real code to respond to the mock code and go through the whole scenario as if it was an alive thing, that is just one way.

In summary, all participants have had some past or present experience with using simulation as a teaching method except one educator who stated she had no experience. Of the eight educators who took part in this study, two educators spoke about their experience with attending the state-of-the-art simulation center in Orlando Florida and how they try to incorporate that experience into their teaching methods.

Theme 2: Initial-annual/types of teaching methods. The educators discussed a variety of methods used to deliver educational information during the initial orientation process and annual competency reviews. The majority of the educators reflected on the Donna Wright competency model that determines how competencies are validated. Participant 1 explained the initial teaching methods used and focused on communication about SPH and the mobility program. Staff are provided with pamphlets and reading material to review. They are then instructed to participate in a hands-on demonstration of the SPH equipment. Participant 1 also identified that the annual competency assessments are conducted using the same approach as the initial training unless there is a new piece of equipment.

When conducting initial and annual competencies Participant 2 reflected on her practice. Her approach to teaching is based on knowing the needs of the learner.

I usually use mixed because… people learn differently and adult learners, some of them are visual, some of them are tactile, and some of them kinesthetic. So, I combine hands-on, return demonstration, scenarios.

During the interviews, Participants 3, 4 ,6, and 8 discussed how the Donna Wright methodology is used throughout the facility to assess initial and annual competencies. While the content may vary depending on the specialty area, the validation methods used are the same. Staff are given the option to select the competency methods that best meet their learning needs. Participant 3 also described Donna Wright as a method to look at your staff and seek the best way that they learn, whether it is through

lecture, video, or hands-on demonstration or whatever the means. She explained that she

tries to have at least three different ways to educate staff when competencies are

assessed. Her methods include lecture, hands-on demonstration, and the use of simulation

because that is considered hands-on.

Participant 4 defined the Donna Wright model as a method to provide a variety of

ways that staff can demonstrate competence in practice. She explained that for the past

couple of years she has used the competency model to assess competencies for initial and

annual assessment skills validation.

> We provide the competency whatever it may be, and we are providing 2-3 ways
>
> for them to complete it. So, it may be a written test, it could be a video, it could be
>
> a clinical skill, it could be a TMS module, it could be a hands-on demo. They get
>
> a choice of where they can write a case study and present it, they can do an in-
>
> service to their staff, with the educator or nurse manager there to make sure they
>
> are covering all the right points.

Participant 6 had a lot of information to share when discussing how initial and

annual competencies are evaluated in her department. She shared how training in the OR

is different from working in other departments because nurses have to be assessed on

surgical procedures as well as the equipment. Initially, staff are assigned a preceptor and

are required to complete several training documents.

> The initial competencies in my clinical area are a checklist, there's a case log, and
>
> there's a checklist the OR has a very big case log. They have an orientation

checklist that I get. Also, we have Donna Wright competencies-based orientation where they are required to read as well from AORN standards and a couple other textbooks.

Participant 8 provided an explanation of how she conducts her initial and annual competencies. When conducting her initial assessment, she likes to set the foundation by finding out what they already know. She explained, everybody learns differently some learners like hands-on, and some prefer to test.

> For the initial, I usually let them do a self-assessment and tell me what they feel competent in or…what they may need more work in. For annual competencies, it is usually something that is sent down from the hospital leadership. Sometimes we will use vendors...the best, the most effective is with the vendor or either the subject matter expert.

In summary, initial and annual competencies are assessed using a variety of teaching methods depending on the specialty area. Some of the methods shared by the educators to assess competency include reading material, written test, videos, and hands-on demonstration. As an educator, it is important to know that everyone learns differently. So, educators have to use teaching strategies that meet the adult learners needs. Some of the educators provided insight on how the Donna Wright competency methodology is used and how this model drives the assessment process for evaluating competence in the facility.

Theme 3: Traditional methods of instruction. Participants focused on teaching methods using traditional and simulation techniques. Participant 1 expressed the importance of making sure that staff is assessed for safety before they are allowed to move patients. So, the staff is required to demonstrate what they know before conducting any hands-on care with the patient.

Demonstration for me is the most effective. Because when you go step-by-step you teach them that this is the way that you are supposed to do it.

Participant 3 shared her experience with using the new competency model that was implemented by the education department. She explained that with the model, you are always using a combination of teaching strategies and assessment methods, so she always uses some traditional means when educating.

For example, lecturing somethings you have to just stand up and tell them you know what's coming or what it is you expect of them. We provide means where they can have discussion and I think that traditional means. So, we talk back and forth we ask questions and we get them to give feedback. We have scenarios where they could do some role modeling, they can kind of act out or they could read scenarios. Those are some traditional ways.

Participant 4 is an experienced educator and when asked about some of the traditional methods used, she stated that before selecting any methods, it is important to know the needs of the learner.

Ok, you have to know your staff in order to be able to try to pick out the best.

What I have found throughout my years is one way is never the correct way you

always have to have 2 or 3 things to go together. So, if it is a written test that you

want to give them for say, like a blood transfusion that will work and then what I

do is provide the reading material or a video showing it and demoing it.

Participant 5 shared how the facility has implemented a new competency model

that is being used to validate competencies in the facility. She expressed that since the

implementation of the model, different verification methods drive how educators validate

competencies.

For example, the customer service we set it up so they could do scenarios,

exemplars, as one way to validate customer service. Then there was face-to-face

classrooms. They have competency fairs that involve a lot of teaching with

modules, like for proning <proning protocol> and for targeted temperature

management. Where they bring in the equipment and its very much hands and

they use posters and different modalities.

Participant 6 likes to engage her students when teaching. She likes to get feedback

from the students so she can determine what methods are working.

 I ask for examples; I will give you an example. When we did the team building

class, as people walked in the room, I gave everybody a little post and I told them

to write one thing down that they thought was a problem.

Participant 7 expressed that the best approach is having the students demonstrate what they know about using the equipment in her department. She explained that she uses a lot of direct observation and return demonstration when evaluating nurses.

Everyone knows what a 12 lead is, but they do not always put the little stickers in the right places. Being able to go through the screens that are on the actual machine so that when they are presented, they would have a better ease and comfortableness with the patient. I tend to shy away from just straight lectures. I try to bring pictures; if I can the pieces of equipment; if I can and I hope that answers your question.

Participant 8 stated that when using traditional methods of instruction, she likes to cover the didactic portion of the material before testing.

A time, traditional methods let say, since we have to do rhythm testing... After some didactic instructions or you could say review materials. What I did was passed out some review materials paper as well as electronic give them some electronic resources to review as well and then did the old fashion paper and pen and that is what we still do.

In summary, educators use a variety of traditional methods of instruction when teaching. Assessing the needs of the learner is important when selecting the appropriate methods of instruction. Allowing the learner to demonstrate some of the learned techniques, helps the educator to determine whether or not the content covered was effective for the student.

Theme 4: Simulation to assess competency. When Participant 3 was asked what was needed to effectively use simulation to assess nurse competency, she replied: "We have just started training on them. I think technology is trying to catch up and so that is a good thing." Participant 1 stated, "exactly a place where you have everything that you need on-hand to train staff." Participant 8 stated, "for me to use it as an educator, it would definitely be the equipment." Participant 4 suggested that there needs to be a fulltime information technology (IT) person to keep the simulation equipment working effectively.

In summary, to effectively use simulation equipment, educators believe that the equipment needs to be readily available and there should be an IT person available to conduct maintenance. Simulation technology is being used more than before and it is time to embrace the technology.

Theme 5: Challenges or barriers. Educators focused on the challenges and barriers to using simulation in the facility. Participant 1 discussed some of the challenges that she faces working as the SPH educator and having responsibility for educating at multiple locations.

A challenge that I have with my program is changes of the unit peer leaders. Space has been identified as a challenge when educators are looking for places to teach staff.

Participant 2 discussed her concerns about space during the interview. She noted, "the availability of training space is a problem because sometimes space is limited for the

organization and you have to be in the cue to schedule a room." Also, there may be staff problems, especially when there is inclement weather and people do not show up.

According to Participant 4 you have to use more than one method of teaching to ensure that you are meeting the needs of all learners. She reported that it is important to know your staff in order to select the best teaching strategies. Now, the challenges and barriers that we face are if the equipment is working appropriately or not working appropriately.

> What I have found throughout my years is one way is never the correct way you always have to have 2 or 3 things to go together. So, they can watch and see and read it and then take the test. Using their senses, the more ways that they can learn to do something the better.

One of the main challenges that several educators voiced concerns about is the lack of control that they have with getting access to use the lab. Participant 5 explained:

> We are very much challenged by the group that controls the sim lab. They are unwilling to give us ready access to it. Another challenge is the lack of an organized schedule. So, we do not know when the room is available, and it is hard to plan educational activities if we do not know when or if we can get into the room. That is our greatest challenge. My suggestion was to remove the office stuff from there and just strictly have it as the sim.

Participant 6 explained that she has never used the simulation lab but feels that nursing does not have access to the lab.

It needs to be under nursing's control. I do not know how else to word that. Under

our control that we would have keys where we could go in and get it and we could

assess it and use it, and there would not have to be high paid salary people like

there are up there now. I might would like to go up there better then, we might all

would in my opinion.

Participant 7 shared that she has personally never tried to use the lab.

I have not tried the simulation room upstairs, so I cannot speak to any difficulties

there.

Participant 8 discussed her experiences with using simulation and the lack of

equipment in the lab. Participant 3 described her experience with using the technology to

teach on a new product that was implemented.

We just got new Zoll life packs for our hospital, so we just implemented those

new Zoll packs for reading the EKG and it works like an AED as well.

Participant 4 suggested that there is a need to have a simulation lab on site.

It would be cool if we could have a simulation lab at each site. Which I know is

very expensive but even if it is with the basics. I like simulation as long as it

works, that is the key. As long as it works, I do not mind using it, that is nice.

Participants 5 and 6 both provided input as to why the educators have not been

able to assess the simulation lab. In the interview both made it clear that there are barriers

for educators when it comes to being able to access the simulation lab. Participant 6

mentioned that lab techs are needed to keep the lab neat and clean.

Participant 5 stated that she sent one of the educators to receive training on using simulation but ran into barriers with getting access to the equipment. The nurse educator returned from the training, excited to use the simulation skills learned, but ran into a locked door and they have not been able to overcome the locked door barrier.

Participant 7 discussed that she is hesitant about teaching on equipment that she is not familiar with using. So, in order for her to use the simulation equipment there would need to be some training.

I have to be able to work the equipment myself because you are usually the one running the simulation or the room. So, I have to understand it before anybody else." According to Participant 8, "for me to use it as an educator, it would definitely be the equipment. We do not have the equipment in our simulation lab, it is not equipped or big enough to run a simulation.

In summary, the nurse educators identified what is needed for them to be successful in using simulation equipment to evaluate nurse competence. Participant 5 expressed concerns with having limited access to the lab. One of the nurse educators was sent for simulation training but was not able to use the lab. Some educators have voiced concerns about not being able to access the lab when needed. While others believe they need assistance with simulation equipment, educational resources, access to the lab, staff to work in the lab, and management support.

Educators expressed that there are challenges and barriers to using the simulation in the organization. The most important challenge identified is that they do not have

access or control of the simulation lab. The lack of control limits the educators from scheduling time in the lab because they do not know when it is available.

Theme 6: Advantages and disadvantages of using simulation. Participant 1 shared her feelings about the advantages of simulation to support the SPH program.

Specific for my program with SPH and everything I need to teach it would be a great advantage to have a simulation place that I would love to have everything right in there.

Participant 2 identified that if the equipment is not maintained there will be problems with using the equipment.

One of the disadvantages is maintenance of the equipment. You have to make sure that you are up to date, with technology and all that stuff.

Participant 3 suggested that nursing needs to embrace the use of simulation.

Ok, in regard to advantages, I feel like in this day and age we as nurses had better embrace technology because it is not going away. Some of the disadvantages is that sometimes you can't make the simulation process individualized for people.

Participant 4 suggested simulation use is good for conducting hands-on training. She stated:

The advantage of simulation is that if you have a skill that they need to do hands on or hear certain sounds or be able to do certain techniques the simulation is very good because it gets them the chance to practice it, which is very good. The disadvantage of the simulation is that it is only focusing on that one thing and can

usually only do one thing and then you have to switch. I think simulation is a

great tool for practice to get them to prepare for the real adventure.

Participant 5 acknowledged there are barriers to using the simulation lab and

equipment and it would be used more if it was readily available to the staff. Participant 6

identified that the problem is that the equipment and the lab are not owned by nursing so

there is limited control when it comes to accessing the department.

Participant 8 recalled some of her experiences with using simulation. She

mentioned that after attending the training in Florida, she learned a variety of ways that

the technology can be to useful in make training with manikins more lifelike for staff.

She discussed the importance of allowing staff to train with manikins because they lose

their skills if they are not using what they have learned on a consistent basis.

Ok, one thing I love about simulation is that it makes it seem real for me and I

know a lot of people if they can kind of like relate or put themselves in the

situation.

In summary, the educators identified that there are advantages and disadvantages

to using simulation. They acknowledged that simulation makes things seem lifelike and is

beneficial for teaching hands-on training. They also explain that to use the equipment

effectively, there needs to be constant maintenance.

Document Review

A document review of competency assessments was used to enhance the accuracy

of the data collection. Each educator provided 10 competency documents that helped to

identify the teaching methods most often used by nurse educators. Information obtained

from the document review consisted of the topic area, validation methods, and pass or fail

ratings (e.g., direct observation, skills checklist, simulation). Data from the documents

were reviewed and categorized based on the topics and the teaching methods used,

including the most frequent methods used. The document data were categorized and

sorted, and themes emerged about the most common teaching methods used by educators.

The results of the document review showed that educators use a variety of

teaching tools. Teaching methods used are based on educator experience, preference, and

resources. A review of the documents received by the educators indicated that

documentation, demonstration, discussion, mock event, presentation, quiz, you tube

videos, and conducting direct observation are frequently used to educate and assess

competencies. Some educators use a combination of these methods to better reach the

targeted audience (See Appendix F).

Conclusions Related to Research Questions

As the nurse educators responded to the interview question, patterns began to

emerge about their perceptions. During the analysis, 6 themes were developed that were

used to identify the nurse educators' perceptions to using simulation. Based on the

educators' perceptions, the overall findings indicated that there are a variety of teaching

methods used by the educators. The decision to use certain teaching methods is most

often based on the educators' preference. Several educators expressed that there are

challenges to using the technology in the facility. Some educators believe the main barrier to using simulation is due to lack of access to the lab.

Research Question 1: How do nurse educators decide whether to use simulation to assess nurse competency?

All of the educators had some current or prior experience with using simulation technology as a method to teach except one educator. Educators reported selecting simulation when they wanted to reassess the nurse's knowledge in a particular area of practice. For example, Participant 2 explained that when assessing nurses' knowledge of some of the body systems, she prefers simulation technology because it allows nurses to use a stethoscope to listen the real heart and bowel sounds. The technology provides a life-like experience by allowing the nurse to differentiate between heart sounds and bowel sounds. The two educators who spent time at the Florida Simulation Center, had the most knowledge and experience with using the technology.

Research Question 2: How do nurse educators decide to use traditional methods of instruction to assess nurse competency?

Use of the new competency model used by the hospital was mentioned by several educators when discussing how competencies are assessed in the organization. According to some of the educators' since implementing the Donna Wright Competency module, the different verification methods drive how competencies are validated. When discussing traditional methods, educators discussed several different methods that are used for instruction. Many of the educators described the following as traditional: power-point,

videos, didactic instruction, lecturing, return demonstration, and tests. According to

Participant 7, sometimes traditional methods are directed by policy or memorandums that

come through different systems where there is a need to get the education out. Participant

4 explained that before selecting any teaching method, you have to know your staff and

be able to determine the best teaching method based on the learner's needs. For example,

Participant 8, explained that she uses return demonstration and test a lot, but most nurses

do not prefer test. So, because there are many different types of learners, she offers

several different teaching methods. For example, when conducting rhythm testing, she

offers didactic instructions, reviews information on paper, and reviews electronic

resources before conducting assessments.

Research Question 3: What are nurse educators' perceptions of the advantages and

disadvantages of using stimulation for teaching nurses in the hospital setting?

Some of the advantages mentioned by the educators is that simulation makes

things seem lifelike when working with mannikins. When using simulation, staff can

practice certain techniques before demonstrating on patients and educational material can

be better organized. Some disadvantages are that some of the technology only focuses on

one thing at a time and cannot be individualized to the learner. There also is a lack of

maintenance of the equipment.

<div align="center">

Role of the Researcher

</div>

I work as a nurse manager in the organization where the study took place. While it

is not recommended for students to research at their workplace, it can be done using some

precautions (Walden University, 2017). I manage the staff on my unit, but I do not control staff in other departments. Therefore, I do not have any authority over the nursing education department. I have worked closely with some of the nurse educators, but I do not have authority over her or any other educators. Some of the educators do not work at my location; there are educators at different sites that fall under the hospital. During the interview with the educators, I made sure to define my role as the researcher and not as the nurse manager. I conducted the recruitment, informed consent, and data collection with the utmost privacy to protect the participants in the study, and to minimize any concerns of retaliation. I had to remain nonjudgmental about what the participants reported. My role for this study was to identify and learn about the nurse educators' perception to using simulation. The information learned from the study provided me with insight into what educational methods are most often selected, and the challenges faced by educators to use the simulation lab and the equipment needed to teach.

Measures to Assure Accuracy and Credibility of Findings

Study findings were confirmed using a triangulation process. According to Creswell (2012), triangulation evidence is collected from a variety of sources to improve the accuracy of the study. In this case study, face-to-face interviews and a document review of competency assessments were used to enhance the accuracy of the data collection. I used an audio recorder to ensure that the information captured was reviewed and transcribed as accurately as possible. The member checking process was used to confirm the accuracy of the information received from the participants. All participants

were sent a copy of the recorded transcripts and initial interpretation of the interview to verify the accuracy of the information discussed. Participants were given one week to review and respond with feedback by email if there were any corrections that needed to be made. There were four participants who replied that they reviewed the transcripts and did not have any suggestions for changes. The rest of the participants did not respond at all. According to Creswell (2012), researchers triangulate among a variety of sources to enhance the accuracy of a study. The researcher studies each source of information. This confirms that the study will be accurate because the information draws or multiple sources of information, individuals, or processes. This helps to reassure that the report produced by the researcher is both accurate credible.

Orientation and annual competency documents were obtained from the nurse educators responsible for orientation and training. The papers were used to show what areas of competency were assessed and what teaching methods were most often used by the nurse educators. Discrepant data is information that does not link to the direction of the study. I maintained an awareness of my own biases at the beginning and throughout the study. According to Holloway and Wheeler (2013), the validity of the research data is improved when the researcher finds that the evidence does not fit into the developing theory or his or her ideas. Negative or deviant case analysis involves finding alternative explanations for the data. With discrepant data, the researcher must conclude when the alternative possibilities are exhausted, and he or she can account for all cases, even those that are deviant (Holloway & Wheeler, 2013).

Limitations

Study limitations included the use of a small sample, but I was able to recruit eight participants for the study. Research texts suggest that 8-10 participants are an adequate number to give in-depth knowledge in a qualitative study (Saldana, 2014). Lack of educator experience did not limit the educators' ability to fully answer the interview questions. Generalization of findings may be limited based on participant involvement and practice setting.

Summary

A qualitative case study design was used for this project study to understand the nurse educator's perception of using simulation. Data were collected from audio-recorded interviews with eight participants to identify the nurse educators' perceptions of using simulation. Research questions focused on the perception of the nurse educators' use of simulation to assess nurse competence. The transcribed data were uploaded into a qualitative software program for data analysis. The analyzed data were sorted into categories, and six themes emerged.

The constructivist theory was used as the framework for the study to further understand the teaching methods used by educators. Participants expressed how learning is an active process and is reflected in the approaches used to assess the competencies of the nurses. The key concepts that learning should be an active process are reflected in how educators deliver educational content (Merriam et al. 2007). Through learner-centered teaching, educators have demonstrated in the study that there are many different

teaching approaches to learning (Ellis, 2016). Participants explained that helping students

to enhance their knowledge and gain new knowledge is the desired outcome in the

learning process. While there are educators who still practice using traditional strategies,

it is important to move forward with incorporating more innovative approaches to

teaching (Gash, 2015). Simulation is identified as a pedagogical strategy that has proven

useful for bedside nurses and their recognition and treatment of deteriorating patients

(Disher et al., 2014). Simulation has been aligned to a rise in nurse self-confidence and

competence in identifying early signs of clinical changes in the patients' conditions, thus

improving patient outcomes (Disher et al., 2014; Hommes, 2014; Lucas, 2014).

Incorporating simulation technology into nursing practice is an important strategy for

educators.

Although most participants discussed some experience with using simulation,

several barriers were also identified in the findings. Six themes emerged as a result of the

data analysis: (a) experience with simulation; seven participants who had some

experience with using simulation had received most of their training experience before

they worked at the facility; (b) The initial-annual/types of teaching methods were

assessed by the participants using a variety of teaching methods depending on the

specialty area; (c) traditional methods of instruction; assessing the needs of the learner is

essential when selecting the appropriate methods of instruction; (d) simulation to assess

competency; participants believed that the equipment needs to be readily available for use

to be effective; (e) challenges or barriers; participants voiced concerns about not being

able to access the lab when needed; (f) advantages/disadvantages to using simulation; educators acknowledged that simulation makes things seem lifelike and is beneficial for teaching hands-on training. The themes were used to enhance understanding of why educators selected the methods identified in the study.

The study identified barriers that existed for nurse educators to fully engage with using simulation equipment as an instructional tool for teaching. Two barriers that stood out were lack of training to use the equipment and access to the simulation lab. The document review helped to pinpoint the teaching methods selected most often by educators. The analyzed data bridged the gap between what I thought was happening and what was the reality for educators working in the field.

Findings of the study provide a better understanding of how nurse educators feel about the use of simulation as a teaching strategy to assess nurse competence in a hospital setting. Participants' responses identified the challenges faced by nurse educators asked to include simulation as a teaching strategy. Identification of common themes associated with using simulation technology in the organization were used to create a 3-day professional development program that is designed to provide educators with the necessary skills to broaden their knowledge related to using simulation effectively in the hospital setting More research is needed to understand educators' perceptions of simulation used for assessing competency and the impact on the nursing profession.

Section 3: The Project

Purpose

The purpose of the study was to identify nurse educators' perceptions of using simulation to assess nurse competency. The study findings suggest that creating a professional development program will be beneficial to the education department. Nurse educators are responsible for ensuring that nurses remain competent in their professional practice; therefore, implementing this program will affect positive social change by supporting the development of nurse educators and practicing nurses. A professional development program will provide ways to enhance job skills, increase job-related knowledge and information, and increase efficiency in practice. Professional development will assist educators in creating teaching strategies that support the needs of the clinician. The project design will create a process for educators to develop the skills needed to support the educational growth of the organization. In this section, I review the rationale for using professional development and demonstrate how current literature supports professional development and the use of simulation for assessing competency. The professional development program will identify an overview of simulation methods for educator to review prior to completing any hands-on training.

Description and Goals

Participants in the study stated that they would use the simulation lab more if it were easily accessible. Understanding the nurse educators' perceptions related to the use of simulation helped to identify their needs and guide the development of a project to

train educators in using simulation to assess nurse competencies. The project's goal was to provide an educational foundation for new and experienced educators to build upon their knowledge and skill and include simulation teaching strategies into instruction. The objective of the development program is to identify essential components of simulation and identify the advantages of the use of simulation in healthcare learning. Each program lesson will cover information that educators' can use to enhance their knowledge and skills. Establishing a program is a significant step in creating a foundation for novice, competent, proficient, and expert nurse educators entering the department. Many educators are transitioning from the bedside to the education department without receiving any formal training. The workshop will contain educational information to support the growth of educators by providing the information needed to teach others.

Rationale

Selecting a professional development/training curriculum and the material category offers an opportunity for improving educator development and including simulation as a teaching method will further support the educational growth of nurses in the organization. Ensuring that educators and leadership understand these concepts will help to support the resources needed for educators to meet the needs of the nurses when conducting competency assessments. The problem and data analysis discussed in Section 2 provide a better understanding of the educational development and strategies often used by the education department. The themes identified from the findings indicate the need for education, training, and support.

Review of the Literature

Findings from the research indicated that educator professional development is needed to meet the educational needs of the educator and the practicing nurses. Developing a professional development program will aid the educator in learning or enhancing the skills needed to teach effectively. Also, the successful implementation of simulation technology as a teaching method is critical to utilizing best-practice teaching strategies to strengthen the nurse's knowledge and skills in the profession. With this literature review, I provide a connection of how and why professional development and incorporating new teaching strategies, such as simulation, is needed for the growth and development of nurse educators and clinicians.

A literature review search initiated information from using electronic databases *EBSCO, OVID Nursing, CINAHL, and ProQuest.* Full-text, peer-reviewed journal articles focused on simulation research publications between 2014-2020. Keyword selection included a focus on *professional development, nurse educator, competency, assessment, simulation.*

Professional Development for Educators

Professional development describes activities that support developing one's professional capabilities through access to education and training opportunities in the workplace (Premkumar, Moshynskyy, Sakai, & Fong, 2017). According to Page, Pool, Crick, and Leahy (2020), professional development (PD) is a mandatory responsibility, and registered nurses must participate in attending the assigned number of hours

annually. PD contributes to knowledge enhancement and is a prerequisite to quality care

and quality practice. A lack of knowledge results in health care that is not cost-effective

has a damaging effect on health outcomes and a negative impact on nursing and work

stability (Page et al., 2020). The nurse educators' responsibilities in the hospital setting

have changed significantly; this is due to resource limitations and a growing emphasis on

self-directed learning. In-addition, Sayer et al. (2016) reported that hospital changes have

occurred due to restructuring and redesign services. According to Arnaert, Ponzoni,

Oliver, and Grugel-Park (2020); Sayer, Salamonson, DiGiacomo, and Davidson (2016)

the primary role of clinical nurse educators (CNEs) involves making sure that practicing

registered nurses have the skills and training needed to improve their clinical practice and

maintain their professional competence.

Arnaert et al. (2020) suggested that nurse educators are under pressure to integrate

technology into their teaching methods. The literature indicated that as a result of the

evolving healthcare system changes, nurses must practice with a commitment to life-long

learning, whether nurses are novices or experts in their practice. Although basic standards

of nursing care may remain the same, nurses must stay informed of changing factors,

such as; scientific developments, research, and the latest evidence-based practice to

sustain safe and efficient patient care. There is a need to ensure that nurse educators are

competent in their practice and receive the professional development training needed to

support educational growth in the hospital to meet the changes. According to Wyman et

al. (2019), competence refers to a person's ability to carry out his or her job function. In

nursing, competence is defined as knowledge, skills, characteristics, motivations, and mindsets essential to effective performance in education, clinical practice, or to any element of nursing. Competency is different from the term competence in that it indicates the extent of skill in performing the task according to an industry standard. A competency statement defines a large area of behavior that is necessary for being competent in a certain role and work setting (Wyman et al., 2019).

Curran (2014) identified that nursing professional development ((NPD) specialist are registered nurses (RN) who, based in the sciences of nursing practice, teaching, and change, use knowledge and skills in instructive theory, career development, leadership, and curriculum management to plan, implement, and evaluate continuing education activities and non-academic settings. When working in the healthcare setting, nurses are required to practice with responsibility for lifelong learning; whether the nurses are novices or experts in their practice. Many NPD specialists have limited exposure to adult learning theory. The literature implied that limited exposure might affect the NPDs educational methods, learning outcomes, facilitation of knowledge transfer, and ultimately impact the professional development of the nurses they serve and the quality of nursing care. The study identified strategies for using adult learning theory to guide curriculum development and knowledge transfer in nursing professional development. Conducting a review of the adult learning theories at the facility will help to create a learning foundation grounded in best practices for the adult learner. The use of the adult

learning theory encourages self-directed learning, learner-centered strategies, and teaching methods that ensure the transfer of knowledge in the workplace.

Fritz (2018) conducted a literature review focusing on the transition of the nurse from clinical to the educator role. Nurses whose purpose requires education of either staff or students face unique challenges related to the need for proficiency in two different professions: nursing and teaching. The findings of the review identified barriers that prevented successful transition into the educator position, unrealistic expectations, uncertainty about the role, poor orientation, lack of mentoring, and lack of knowledge about educator skills. Some of these same barriers were identified by educators who participated in the study. The professional development educator program will assist with addressing these barriers and create resources for educators' success. The learning needs of the novice educator are different from the experienced educator and include the need for adult learning principles, learning styles, teaching techniques, learner evaluation, and giving feedback. To meet these needs, some authors recommended that educators get a master's degree in nursing education before taking on the role. The other option is to create an orientation or nurse residency program to develop educator skills while also fostering networking and mentoring. Regardless of how educator skills are acquired, it is clear that these skills are essential for a successful transition to educator roles across practice settings (Fritz, 2018). Understanding the different stages of the nurse's experience level will aid in creating the appropriate program that will meet the needs of the learner.

McAllister and Flynn (2016) suggested that nurse educators are required to have some necessary skills in their role: the ability to prepare, distribute, and assess teaching relevant to nursing; the ability to take the lead and motivate others; and the ability to research and transform. These necessary skills set the foundation for the role of the nurse educator. Incorporating essential skills into the educators' teaching helps to provide a necessary foundation for the educator role. McAllister and Flynn (2016) explained that the quality of nursing care and patient outcomes are directly related to education, competence, and adherence to evidence-based practice. Phillips, Phillips, Kauffman, Gainey, and Schnur (2019) explained that nurse educators in the practice setting are situated to facilitate occasions for practicing nurses to be involved in evidence-based practice (EBP) care initiatives involving academic-health care partners in clinical and community-based systems (Phillips et al., 2019). McAllister and Flynn (2016) study discussed that there are a comprehensive set of competencies needed for nurse educators: (1) teaching knowledge and teaching skills, (2) application of nursing knowledge within education, (3) development and maintenance of positive educational relationships with students, (4) nurse educator-led leadership, and (5) research orientation and action.

It is essential to understand how a nurse educator addresses the educational needs of nurses and the broader health workforce to provide competent, safe health care solutions-having a professional development program in place can provide resources needed to promote teaching efficiency and improve the quality of teaching. Structured

professional developmental programs promote educator engagement, the achievement of student learning outcomes, and teaching effectiveness (Stuckey et al., 2020).

Nurse educators are critical to the health care system by supporting clinical practice by developing a skilled and competent hospital-based nursing workforce (Thornton, 2018). The nurse educator is a direct liaison to assist nurses to function in the clinical environment when deficits are identified or occur with policy, procedure, skill, or knowledge (Thornton, 2018). Nurse educators are the key tool for hospital-based professional nurse education at a time when knowledge, technologies, and practices are rapidly changing. Without nurse educators, hospitals risk the cessation of real-time responsive pedagogically informed ongoing professional development of their workforce and, in turn, the quality of nursing care and, thus, patient outcomes (Thornton, 2018).

The nurse educators' training, positive attitude, and effective teaching and learning approaches are essential in creating a culture of teaching excellence (Stuckey, Wright, Wallace, & Key, 2020), having a professional development program in place can provide the resources needed to promote teaching effectiveness and improve the quality of teaching (Stuckey et al., 2020). Structured professional developmental programs promote educator engagement, the achievement of student learning outcomes, and teaching effectiveness (Stuckey et al., 2020).

Professional Development for the Novice Educator

According to Kranz, Love, and Roche (2019), nurses pride themselves on how education and continued education drive them from novice to expert clinicians as nurses

move from the clinical role to an educator's role, nurses often ignore the learning curve that exists from novice educators to expert educators. The learning needs of the novice educator are different from the needs of an experienced educator. Jetha, Boschma, and Clauson (2016) conducted a systematic approach using a Rapid Evidence Assessment (REA), scholarly literature was reviewed to recognize current professional development needs for novice clinical teachers as well as helpful strategies to aid the transition of experienced nurses into the teaching practice. An REA is a useful method to explore the evidence-based literature on teaching needs and best practices. The review looked at two aspects: the specific pedagogical learning needs of novice educators and best practice in supporting them. The professional development needs included orientation, support, as well as guidance from experienced peers and feedback on their practice.

According to Thomas and Kellgren (2017), the novice to expert model identifies the different stages of development for practicing nurses and implies that when placed in a different situation in which one has little experience, the person reverts to using context-free rules in theory to guide action. The novice nurse is a beginner who has no real experience of how to apply new knowledge and skills and unusual circumstances. Novice nurses use general rules in a context-free, inflexible, and straightforward. Performance is limited because following straight rules hinders the ability to recognize the most appropriate task to carry out in various situations. The advanced beginner stage begins when the nurse can use standards, checklist, knowledge, and insight to apply learned rules that guide actions. Competent level performance occurs when the capability

to focus on and utilize elements of situations that are most appropriate. Thinking is more deliberate, theoretical, and rational when making decisions. Nurses at the proficient state of performing look at circumstances using a holistic approach and can identify pertinent changes of variables as the situation occurs. Proficiency becomes clear when spending less time thinking; nurses know what they have to do. The expert stage shows experience and insight development. Experts have a highly skilled ability to combine practical and existential skills to create solutions to clinical problems (Thomas & Kellgren, 2017).

Simulation and Professional Development

According to Harper, Gilbert, Gilbert, Markey, and Anderson (2018), a gap in the literature exists concerning the degree to which simulation usage occurs in the acute care setting and the challenges associated with its use. A study was conducted by three national nursing associations to examine simulation use in acute care hospitals in the United States and military hospitals abroad. The Association for Nursing Professional Development (ANPD), the Society for Simulation in Healthcare (SSH), and International Nursing Association for Clinical Simulation Learning (INACLS) met to discuss potential collaborative partnerships to research simulation. Knowledge of the scope of simulation use can accelerate the plan of simulation related educational goods and services for NPD practitioners and other simulation personnel. The promotion of educational goods and services has the potential to enhance the use of simulation as a teaching strategy and thereby improve quality care and patient safety. This study identified that simulation in U.S. acute care hospitals is used primarily for the professional development of clinical

staff and frequently includes interprofessional teams. The findings of the study validate

that simulation is increasingly being used in healthcare to teach cognitive, psychomotor,

and affective skills. Implementing simulation training as part of professional

development for nurse educators will provide alternative teaching methods that promote

better patient outcomes and improve the quality of care and safety. Educational

technologies are commonly used in nursing simulation, distance education, telemedicine

and computer skills training, and are more likely to be used by nurse educators when

given appropriate training and technical support (Oprescu, McAllister, Duncan, & Jones,

2017).

According to Holtschneider and Park (2019), many hospital systems use high-

fidelity simulation to support in the delivery of critical clinical skills attainment and

interprofessional team training to respond to emergencies. Interprofessional education has

become a necessary tool in changing the education of health care professionals. Nelissen

et al. (2017) explained, simulation-based training effectively enhanced knowledge and

simulated skills, but to fully understand the impact on clinical behavior and patient

outcome, more research is needed. Rossler and Kimble (2016) explained that the

complexity of health care justifies the need to engage with all members of the health care

team effectively. Educators must find better ways to prepare for a professional practice

that incorporates interprofessional relationships. Reed et al. (2017) literature focused on

the importance of interprofessional health care teams to collaborate when caring for

complex patients, and failure of teams to work together successfully can result in less

than desired patient health outcomes. Current literature suggests that nursing professional development educators use simulation-based learning to enhance activities during annual competency evaluation, orientation/onboarding, emergency response drills, and interprofessional teamwork scenarios (Holtschneider & Park, 2019).

According to Lafond and Blood (2016), nurse educators are called upon to facilitate or develop simulations because of their clinical and teaching expertise. There is a need for professional development to support educators in the use of simulation. How the nurse educator adds value to the profession can be achieved through celebration of education innovation, acknowledging the breadth of work undertaken by nurse educators, ensuring nurse educators are appropriately supported to work to their full scope of practice as educational experts and referred to as education experts within the organizations that encourage and support nurse educators. Holtschneider and Park (2019) identified that educators must remember that their talents as educators are what they bring to all educational settings to improve learner engagement, reflection, an iterative practice. Bristol et al. (2019) evaluated several studies on active learning and suggest that active learning promotes higher-order thinking skills and involves teaching strategies such as case studies, class debates, think-par-share activities, role-playing, peer teaching, gaming, the 1-minute paper, or questions embedded in lecture. Teaching methods should be selected based on the learning outcomes to be achieved and what methods would work best considering the outcomes.

Ryall, Judd, and Gordan (2016) conducted a systematic review to examine simulation as an assessment tool for technical skills across health professional teaching. Although simulation has predominately been used to train health professionals and students for a variety of clinically related situations, there is an increasing trend to use the simulation for the assessment of competency. The literature suggested that educators need to create assessments that are more realistic and performance-based. Out of this need for accurate assessment came the implementation of simulation-based assessment. As such, health professional educators have gradually adopted simulation- based assessment as a practical means of evaluating student and health professional populations. Also, simulation-based assessments are a means of creating a reliable assessment replicating aspects of actual clinical practice. While there has been a wide-range of agreement on simulation as an educational training tool, with evidence validating its use in health education, the effectiveness of simulation-based assessment in evaluating competency in performance remains unclear. The anticipated outcome for nurse educators involves the integration of simulation strategies into their clinical setting when evaluating nurse competency in the facility. For eductors in the facility to have the

According to Topping et al. (2015), a systemized rapid review and synthesis of the literature was conducted to identify competencies required by nurse educators to facilitate simulation-based learning (SBL). The paper argues there is sufficient evidence across nursing to formally incorporate SBL into regulations associated with clinical practice requirements for health care professionals. Nurse Educators should have a basic

skill set in order to incorporate simulation properly into program delivery. Competent

simulation educators can create positive, comfortable, trusting, and emotionally safe

learning environments. For nurse educators to use simulation effectively, it will require a

broad range of competencies to effectively use simulation. They need widespread

knowledge, behaviors, skills, and make use of what they have acquired from both nursing

and education.

NPD educators are in a unique position to positively impact the transition of a

new graduate nurse to practice. While nurse educators are encouraged to use simulation,

there are barriers to its use. According to Harper et al. (2018), cost and busy staff were

identidied as the most significant barriers to simulation use. The literature indicated that

organizations must define the value of simulation used to guide decisions about the

allocation of limited human and financial resources in acute care hospitals.

According to Edward and Chukwuka (2020), simulation is used more and more in

continuing and in-service education in healthcare staff- education settings. Staff

development educators can create simulation training that will assist learners in

developing the expertise needed in the clinical setting. Including simulation into the

development of nurse educators is crucial. Employers are starting to use simulation as a

mechanism to evaluate competence for new nurses. Simulation is also used for

experienced nurses to demonstrate skill competence for complex skills and procedures.

Practicing and obtaining experience through the use of simulation can help develop

nurses from novice to expert nurses, allow them to gain self-confidence and knowledge about how to respond when faced with an emergent situation.

Target Audience/Timeline

The target audience is nurse educators, the director of nursing, and the director of the simulation laboratory. A 3-day professional development training plan will help guide educators through a review of the foundational skills utilized for teaching. A detailed guide will provide the models needed to learn simulation techniques to increase lab usage of the technology. The 3-day lesson plan will include teaching strategies that educators can gain for the continued development of practicing clinicians in the facility. After the power-point presentation, nurse educators will have increased knowledge and resources to enhance their learning and promote the transfer of learning to others.

The structure of the 3-day training plan design assists in engaging educators by using different teaching methods (Appendix A). The three-day plan covers much information needed for nurse educators to be successful. Content-focused, interactive, and participative methods delivered the development plan to the nurse educators. On the first day of training, the content will focus on the study results, defining professional development, and reviewing the basis for educational development using a power-point presentation. After lunch, educators will complete Grasha's teaching style inventory. The discussion provides educators with an opportunity to review and reflect on their teaching style. There will be a group discussion on the different types of styles, including the

advantages and disadvantages of each style. The facilitator will recap the day's session by conducting a Q&A session.

The second day is structured the same as the first day. The morning will begin with a brief recap of the previous day's Q&A. The power-point slide on the effective methods for teaching the adult learner. Educators will watch a brief YouTube video on adult learners. The discussion will follow the video on the identified suggested methods for teaching adults. Once the discussion has completed, then there will be a power-point review on the role of the educator. After lunch, educators will then be asked to complete the teaching goals inventory for educators to review what they want nurses to learn. Then a power-point presentation on the different levels for nurses and how they apply knowledge. The final topic will focus on how to incorporate simulation technology into teaching as a teaching strategy. The facilitator will recap the day's session by conducting a Q&A session.

On the final day is structured the same as the previous days. The morning will begin with a brief recap of the previous day's Q&A. The PowerPoint slides will focus on simulation and the theoretical framework for using simulation technology to support learning and promote patient safety. After lunch, a power-point review of the types of simulation available and competencies needed for nurse educators. The facilitator will recap the day's session by conducting a Q&A session. A discussion of final thoughts and best practices will occur before educators complete the final evaluation for the program.

Project Evaluation

The PD training will be evaluated by a feedback survey provided after the completion of the 3-day review. Evaluation of the educator training will include educators working in the education department and submitted to new educators transitioning into the educator role and the department. The evaluation tool will determine the effectiveness of the educator teaching and identify if additional resources needed that will assist the educators with increasing their knowledge and skills to promote learning in the department.

Implications Including Social Change

The foundations for potential social change include a better understanding of what is needed to enhance the practice of nurse educators in the hospital setting and to create teaching strategies that promote the use of simulation as an effective learning tool in the knowledge and skill acquisition of competency assessment. Implications for positive social change include the use of simulation to improve the development and competence of nurses in the hospital setting, thus helping to ensure a culture of safety for patients.

The project will have an impact not only on the local setting but also for all educators responsible for the continuous development and training of nurse professional in the hospital setting. As this project was limited to a small group of educators, it can be used in a larger environment by applying the concepts but focusing on the subject matter specific needs of the learner.

Conclusion

The purpose of the professional development program is to provide recommendations and resources for educators working in the educator department. Understanding the needs of the educator is key to maintaining the growth of the organization. Educators have to continue to look for ways to provide the latest evidence-based practice and to include simulation-based learning as a teaching strategy. Incorporating will help to continue to develop a workforce that can keep up with the competing demands for improving the quality and safety of the patient care delivered.

Section 4: Reflections and Conclusions

Project Strengths and Limitations

In Section 4, I review of the strengths and limitations of the project, describe personal reflections, and offer recommendations regarding this project study. The constructivist and Kolb's experiential theory shaped the framework for the project and helped identify the use of simulation as a teaching strategy. The key concept for the study focused on learning as an active process in which learners construct ideas or perceptions based on current or prior knowledge. The theories provided the foundation for using a learner-centered approach and should guide nurse educators to look at different methods of instruction. Using LCT, the educator guides the students in constructing meaning from what they have learned and reflected on their learning. Using simulation technology allows the learner to be at the center of the learning process and the educator to be the facilitator.

This case study identified nurse educators' perception of using simulation to assess nurse competence. The educators' viewpoint provided insight as to the challenges faced by educators and their use of simulation. The recommendation for integrating SBL will improve the competence of the nurse workforce and ensure that they can keep up with the competing demands for improving the quality and safety of the patient care delivered.

Nursing and education leadership will be able to use this project to develop a foundation for training new nurse educators and provide additional training and resources

for practicing nurse educators to promote simulation as a teaching strategy. PD training introduces basic education knowledge. It leads to simulation knowledge and training that can be used at any time and allows for flexibility for educators to review the material at any time.

The limitation of the study shows the need for more data from a significant number of educators in the hospital setting. Also, the study was limited to the mid-Atlantic area of the United States. While the data may have some concepts that can be generalized, it does not support the conclusion for all educators who use simulation to support learning in the hospital setting. Each hospital education department has its unique problems; therefore, the study cannot compare to every education department throughout the country.

Scholarship, Leadership, and Change

Educators are responsible for incorporating knowledge through scholarship, including their learners. Educators are accountable for ensuring that nurses sustain competency in practice (Von Colln-Appling & Giuliano, 2017), and hospitals have a responsibility to validate that nurses have the knowledge and experience to make reliable clinical judgments that maximize patient safety (Adamson, 2010).

The doctoral journey has taught me a lot about the research process. The process starts with asking a question or having a theory about a particular topic that evolves as more information is collected. A scholarly literature search helps to identify existing

research that has occurred on the topic. The process helped me to understand what it means to be a scholar within higher education. I have learned how to research scholarly resources and to identify studies that answered questions or validated my ideas on the topic. The scholarship requires researchers to be open to ideas and to gain new knowledge through a review of existing studies on the topic.

Scholar, Practitioner, and Program Developer

As a scholar in higher education, I learned how crucial it is to follow the appropriate guidelines for research to ensure that the study is thorough without bias and has validity. Asking the research question and working with the participants to gain insight into what they thought about the topic shaped the study. The research process required strong leadership skills and resilience. Each step of the process required decisions that were needed to push the project forward. Taking a leadership role in the project was key to keeping the project moving forward. Changing the way that educators conduct competency assessments will help to improve competency in skills for practicing nurses. I had little experience with developing a program, so it was a challenge for me. I struggled with creating topics that were meaningful for the learner. The content was covered using power-point versus another method to present individual sections of the information. The 3-day training guide is designed to cover the most important topics that the educator will teach. The methods to deliver the content include content- focused, interactive, and participative methods to engage the learner. At the end of each learning session, there is a recap of the information covered for the day. Before the beginning of

Day 2 and Day 3, there is a recap of the information covered the day before. On the last

day, the educator will complete an evaluation form of their experience will reviewing the

training. Feedback will provide the facilitator with information regarding the

effectiveness of the training covered in training.

This project was very enriching as a doctoral student and as a nurse. Asking a

question about the use of simulation in the facility led to develop a better understanding

of the role of the educator and to appreciate the work that they do. Because I have a

passion for using simulation technology to support nurse education, I made sure to

remain bias free when collecting the data and when conducting the data analysis. I

believe in quality care for patients, and there is nothing more important than ensuring that

patients are receiving the best safe care possible. Since starting the research project, I

learned all of the aspects needed to conduct a legitimate research study using the

appropriate guidelines. I believe that pursuing the implementation of simulation into

practice for educators is beneficial to educators and nurses. The use of simulation as an

educational tool in nursing is of significant importance to both education and practice.

The ultimate goal of providing care to patients ensures that the care delivered is safe and

promotes a positive outcome for the patient.

Project Development and Evaluation

Project development is complex and difficult to manage, especially since the

organization's education department has had some turnover of the educators who

participated in the study. Listening to their experience provided me with a better

understanding of their role and the barriers faced to educate the nursing staff throughout the hospital. The information presented might not have any significance to new educators working in the department. Establishing the most efficient way to present the outcome of the study to busy nursing leadership and nurse educators is a challenge. The research project helped me to understand what is needed to create a project study based on data results. Identifying the needs of the learner is critical to developing training that is beneficial in meeting their needs.

<p style="text-align:center">The Project's Potential Impact on Social Change</p>

Understanding educators' perceptions of the use of simulation as a teaching strategy in hospitals can contribute to positive social change in the nursing profession by enhancing competencies in nursing practice. Positive change will result in educators who are knowledgeable about using simulation technology as part of the education process to assess the practicing nurse's knowledge. The project results will have an impact not only on the local setting but also for all educators responsible for the continuous development and training of nurse professionals in the hospital setting. As this project was limited to a small group of educators, the results can be generalized to a broader environment by applying the concepts but focusing on making the subject more specific to the needs of the learner.

<p style="text-align:center">Implications, Applications, and Directions for Future Research</p>

The study's emphasis was on understanding nurse educators' use of simulation technology. Most educators have not received any formal training with using the

technology but are expected to include the technology as a teaching method. This project

implies that without access to the simulation lab, educators will not have the ability to use

the simulation equipment as a resource for learning. Educators can reference professional

development training as a review guide for learning about simulation as a teaching

strategy. Implementation of the recommendation will depend on the organization's

ability to make the simulation lab more available for educators' use. Future research

regarding the benefits of using simulation to assess nurse competence would provide

insight on the best practices to promote learning the hospital setting.

Conclusion

In conclusion, this study sets the foundation for education departments in the

hospital setting to understand the educators' view with implementing simulation into

practice. It is essential for healthcare leaders and higher education administrators to

understand the needs of the nurse educator and the practicing nurses that they manage.

Strategies are required to minimize the practice gap that exists with using simulation to

support learning- recommendations will aid hospital educators with incorporating

simulation technology into evaluations for nurses. Using the latest evidence-based

practices, which supports the use of simulation, will ensure that nurses are trained with

the latest knowledge and skills to deliver competent, safe care to the patient. While the

study is small, the study results are a vital contribution to the knowledge and practice of

nurse educators who are required to ensure that practicing nurses are functioning at their

highest potential and delivering care that promotes positive outcomes for the patients that

they serve.

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Appendix A: Professional Development Education Plan

Title: Professional Development for Nurse Educators

Purpose: The purpose of the project is to provide an educational review and foundation for nurse educators that includes simulation as a teaching strategy.

Goals: The goal of this project is to provide an educational foundation for new and experienced educators to build upon their knowledge and skill and include simulation teaching strategies into their teaching.

Desired Outcomes: The anticipated outcome is for nurse educators to intergrate simulation strategies into the clinical setting when evaluating nurse competency in the facility.

Target Audience: The target audience is nurse educators, the director of nursing, and the director of the simulation laboratory. A 3-day professional development training plan will help guide educators through a review of the foundational skills utilized for teaching. A detailed guide will provide the models needed to learn simulation techniques to increase lab usage of the technology. The 3-day lesson plan will include teaching strategies that educators can gain for continued development of practicing clinicians in the facility. At the conclusion of the training, nurse educators will have increased

knowledge and resources to enhance their learning and promote the transfer of learning to others

  Timeline: The target audience is nurse educators, the director of nursing, and the director of the simulation laboratory. A 3-day professional development training plan will help guide educators through a review of the foundational skills utilized for teaching. A detailed guide will provide the models needed to learn simulation techniques to increase lab usage of the technology. The 3-day lesson plan will include teaching strategies that educators can gain for continued development of practicing clinicians in the facility. At the conclusion of the training, nurse educators will have increased knowledge and resources to enhance their learning and promote the transfer of learning to others.

  Training Activities: During the 3-day plan, a review of teaching and learning strategies will be covered in a manner that demonstrates how the strategies are relevant to the success of the educator. By the end of the development program educators will have gained knowledge about the learning foundation and how simulation can be a useful tool to support the education of practicing nurses.

The Professional Development
Program for Nurse Educators

By: Angela Horton
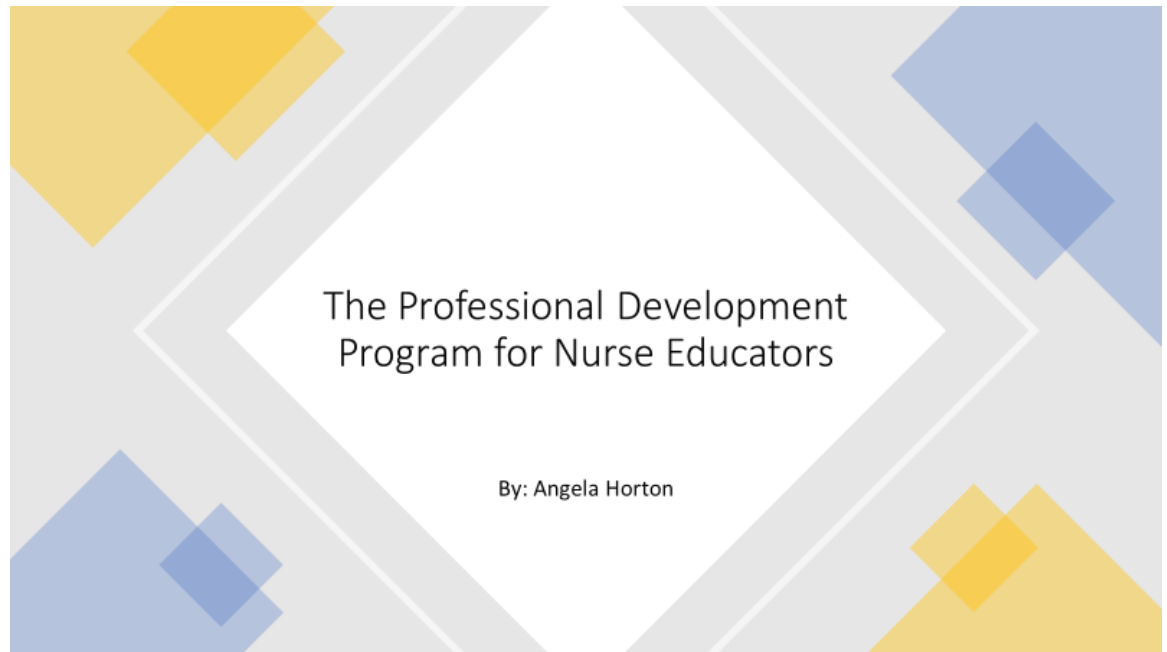
Welcome to the professional development program. The program was designed to assist new and experienced nurse educator to fully understand the characteristics that go along with teaching nurses. The presentation offers core concepts needed for nurse educators to develop in this role.

Agenda Day1

Time	Activity	Facilitator
9:00-915	Welcome	Angela Horton, RN
9:15-10:15	Research Results	Angela Horton, RN
10:15-10:30	Break	
10:30a-12:00	Power-Point(PP) slides	Angela Horton, RN
12:00-1:00	Lunch	
1:00-2:30p	Teaching Styles	Angela Horton, RN
2:30p-2:45p	Break	
3:00-3:30	PP: Discussion	Angela Horton, RN
3:30-4:00	Day 1 Q&A	Angela Horton, RN

Study Results

- Experience with using simulation -7 educators-9.6%
- What initial annual types of teaching methods -8 educators-14%
- Traditional methods of instruction-7 educators-15.9%
- Effective use of simulation to assess competence-2 educators-1.3%
- What challenges or barriers -6 educators-16%
- Advantages disadvantages to using simulation technology- 6 educators-13.4%

Document Results/Teaching Methods

- Direct observation/Verbal Knowledge-18%
- Discussion/reflection/basic training-9.9%
- Questionnaire/quiz/discussion/youtube-8.6%
- Demonstration/observation-6.2%
- Documentation review, verbalization-6.2%
- Daily work/Mock events-6.2%
- Face to face /Power-Point-6.2%
- Presentation-6.2%

Study Recommendations

- The study findings suggest that a professional development program is needed at this research setting.
- Nurse educators are responsible for ensuring that the nurses remain competent in practice.
- Therefore, implementing this type of program is imperative to support the development of nurse educators and practicing nurses.
- A professional development program will provide ways to enhance job skills, increase job related knowledge, information, and increase efficiency in practice.
- Professional development will assist educators with creating teaching strategies that supports the needs of the clinician and incorporate simulation as a teaching strategy

Goals/Objectives

- The goal of this project is to provide an educational foundation for new and experienced educators to build upon their knowledge and skill and include simulation teaching strategies into their teaching.
- The objectives:
- Define professional development
- List some theories and skills needed for educator success
- List the essential components of simulation
- Identify the advantage for the use of simulation in healthcare education and training

What is professional development

Professional Development is learning to earn or maintain professional credentials such as academic degrees to formal coursework, attending conferences, and informal learning opportunities situated in practice.

It has been described as intensive and collaborative ideally incorporating an evaluative stage.

There are a variety of approaches to professional development, including consultation, coaching, communities of practice, lesson study, mentoring, reflective supervision and technical assistance

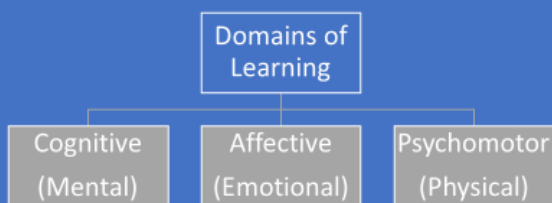Program promotes educator engagement
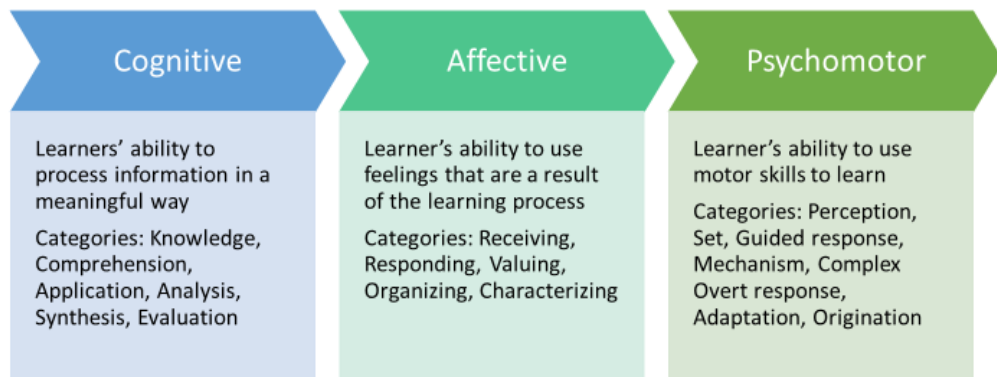
The achievement of student learning outcomes

Professional Development Program

Teaching effectiveness

Domains of Learning

Domains of Learning

Cognitive (Mental)

Affective (Emotional)

Psychomotor (Physical)

Cognitive	Affective	Psychomotor
Learners' ability to process information in a meaningful way	Learner's ability to use feelings that are a result of the learning process	Learner's ability to use motor skills to learn
Categories: Knowledge, Comprehension, Application, Analysis, Synthesis, Evaluation	Categories: Receiving, Responding, Valuing, Organizing, Characterizing	Categories: Perception, Set, Guided response, Mechanism, Complex Overt response, Adaptation, Origination

Role of the Nurse Educator

The role of a nurse educator is a combination of nursing knowledge, values, and skills and teaching knowledge, values and skills.

Nurse educators are first trained to be professionals that care for patients in some aspect before they begin their careers as educators

Basic Skills for Nurse Educators

The ability to prepare, distribute, and assess teaching relevant to nursing

The ability to take the lead and motivate others

The ability to research and transform.

Health Care Educators

- Educators usually begin their careers as professionals in the clinical area, without formal education courses in how to teach.
- Over the past 10 years, education in nursing has changed and simulation is a new teaching technology being used
- Despite persistence or increasing pressure to use simulation, educators remain inadequately trained and simulation remains under used

- Unfortunately, lack of training on how to use simulation in education can translate into poor educational instruction
- Creating a professional development program will provide training for educators and increase the use of simulation technology

Grasha's Teaching Style Inventory

- The teaching style inventory which consists of a series of questions that are rated on a Likert scale ranging from one to five
- Your responses to the 40 statement generate a score for the five different types of teaching styles identified by Grasha's
- These five stars are described according to the prevalent behaviors associated with each category: expert, formal authority, personal model, facilitator, and delegator

Discussion

Youtube video :https://youtube.com/watch?v+FV9n010gf0

Learning Styles & Multiple Intelligences: Theory Integration

Agenda Day 2

Time	Activity	Facilitator
9:00-9:15	Review of day 1	Angela Horton, RN
9:15-10:15	Andragogy	Angela Horton, RN
10:15-10:30	Break	
10:30a-12:00	Power Point	Angela Horton, RN
12:00-1:00	Lunch	
1:00-2:30p	Novice to expert	Angela Horton, RN
2:30p-2:45p	Break	
3:00-3:30	Simulation/video	Angela Horton, RN
3:30-4:00	Day 2 Q&A	Angela Horton, RN

Engaging Adult Learners

YouTube Video/ASA's Aging in America
https:??www.youtube.com/watch?v=ALWb191SDFY

Effective Methods for Teaching Adults

- The Teacher
- The Learner
- Navigators
- Problem Solvers
- Engagers
- The content
- The situation

- Assess own beliefs learning and the learner
- Individuals entered the learning situation with diverse sets of needs and interests
- These learners initiate a learning activity by looking externally at the utilization of resources that will help them to accomplish the learning task and by immediately beginning to narrow focus these resources
- Rely on Critical thinking skills, this is a Reflective thinking process which uses higher order thinking skills.
- Engages are passionate learners who love to learn, learn with feeling comma and learn best when they are actively engaged in a meaningful manner with the learning task
- Every teaching learning transaction deals with some type of content
- Conditions refer to learning that are not the personal psychological attributes of the learner or teacher

ANDRAGOGY

Principle

- Leaners need to know why they need to learn something
- Teacher is a facilitator and learning is collaborative
- Experience is relevant to learning
- Learner become ready to learn when curriculum is meaningful and relevant
- Learning is active and generally interactive among students and facilitator
- Learners are self-directed and motivated by both intrinsic and extrinsic motivators Learner-centered teaching style
- Teaching methods

Key Points

- Learners will resist learning if they feel others are imposing on them
- Learning is collaborative, with learners and teachers collaboratively developing curriculum based on learners' needs
- Experience will impact the learner's approach to learning; peer learning is emphasized and encouraged based on the experiences of individual learners
- Learning needs assessment both formal and informal, identify learners needs
- Learning is not generally acquired through specific matter content- on the contrary, adults are life centered , not subject matter centered ; active learning activities are more meaningful and relevant to adult learners
- Motivation is both external an internal
- Learner needs assessment , case and problem- solving scenarios, role playing, interactive discussion, storytelling, learning games, worked examples, and simulation, short periods of lecture interspersed with interactive learning activities

Student Centered

- High level of student choice
- Students are active
- Power is primarily with the student
- Focused primarily on conceptual change in learners

Teacher Centered Learning

- Low level of student choice
- Students are "passive"
- Power is primarily with the teacher
- Focused on transmission of content

Changing Factors in Nursing

Evidence-based Practice to sustain safe and efficient patient care.

Although basic standards of nursing care may remain the same

Nurses must stay informed of changing factors

Research

Scientific Developments

Nurse Educator Competencies

Teaching knowledge in teaching skills

Application of nursing knowledge within education

Development and maintenance of positive educational relationships with students

Nurse educator led leadership

Research orientation and action

Adapting to Nursing's New Expectation

Boosting your simulation Fidelity can help your nurses success

Novice to Expert Nurse

Novice Nurse

Novice nurses use general rules in a context- free, inflexible, and straightforward

Performance is limited because following straight rules hinders the ability to recognize the most appropriate task to carryout in various situations

The advanced beginner stage is noted to begin when the nurse is able to use standards, checklist, knowledge, and insight to apply learned rules that guide actions.

Competent Nurse

Competent level performance is evidenced by the capability to focus on and utilize elements of situations that are most appropriate.

Thinking is more deliberate, theoretical, and rational when making decisions.

Proficient Nurse

Nurses at the proficient state of performing look at circumstances using a holistic approach and can identify pertinent changes of variables as the situation is presented

Proficiency is obvious because less time is spent thinking, nurses simply know what needs to be done

Expert Nurse

The expert nurse practice is more difficult to explain

Experience and insight are highly developed at the expert stage

Expert nurses combine theory and practice without deliberate thought

Experts have a highly skilled ability to combine practical and existential skills to create solutions to clinical problems

Agenda Day 3

Time	Activity	Facilitator
• 9:00-9:15	Review of day 2	Angela Horton, RN
• 9:15-10:15	Simulation definition	Angela Horton, RN
• 10:15-10:30	Break	
• 10:30a-12:00	PP Theoretical framework	Angela Horton, RN
• 12:00-1:00	Lunch	
• 1:00-2:30p	Types of Simulation/comp	Angela Horton, RN
• 2:30p-2:45p	Break	
• 3:00-3:30	Day 3 Q & A	Angela Horton, RN
• 3:30-4:00	Program Evaluation	Angela Horton, RN

Teaching Strategies

- Lecture
- Experiential Learning
- Problem-Based Learning (PBL)
- Inquiry-Based Learning
- Cooperative Learning
- Flipped Teaching

Theoretical Framework for Simulation

Constructivism

Experiential

Adult Learner

Reflective Practice
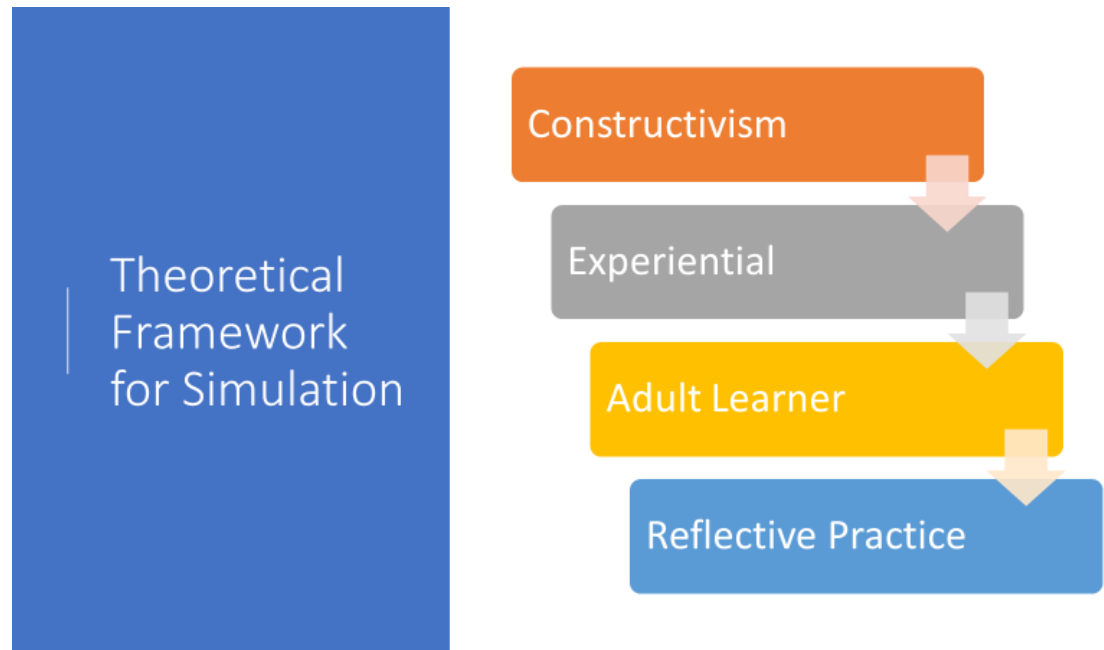
Constructivism

- The conceptual definition of constructivism is focused on how human learning is constructed and built on previous knowledge
- The key concept is learning should be an active process in which learners' construct ideas or perceptions based on their current or past knowledge

Experiential

- Kolb's Experiential Learning Theory (ELT) is a guide for simulation-based education. The four stages are concrete experience, reflective observation, abstract conceptualization, and active experimentation

Adult Learner

- As adult learners' self-concept changes from being dependent on others to being dependent on themselves, they seek out and prefer learning experiences that are self directed

Reflective Practice

- Reflection is a process of learning from experiences, considering and evaluating previous knowledge considering these experiences, and then incorporating this new knowledge to inform future practice period.

Active Learning Techniques

- Pause Procedures
  - A brief pause in a learning session to allow learners to clarify and assimilate information
- One-Minute Point
  - A type of pause procedure where learners reflect on and share areas of confusion
- Think-Pair-Share
  - Pose a question to the group and have learners consider their response individually. Next instruct learners to pair with a neighbor to compare responses and reach consensus. End by randomly calling on pairs to share with the group

Active Learning Techniques

- Case-Based Learning
- Concept Maps
- Team-based learning
- Problem-Based Learning
- Thinking Hats

- A technique that use vignettes of real or hypothetical patients to facilitate a discussion
- A technique that involves visualizing relationships between concepts by creating a diagram. Can be done individually or in groups
- Small group learning that involves pre class preparation so that learners are ready to learn
- Case space learning in small groups
- During this exercise, learners with different metaphorical hats that represent a different way of approaching a problem or topic

Simulation Defined
SSH(Society for Simulation in Healthcare

The imitation or representation of one act or system by another

4 main purposes in healthcare

➢ Education
➢ Assessment
➢ Research
➢ Health System Integration-

These purposes are used to promote patient safety

(www.ssih.org)

Types of Simulation

- Concept based
- Virtual Reality
- Standardized Participants
- Task Trainers (Partial to complex)
- Human Patient Simulation (low-high fidelity)
- Hybrid

Components of Simulation

Introduction to
Nursing Simulation

Youtube video

Educator
Competencies for
Delivering
Simulated Learning

Comportment

- Discuss reflect legal and ethical issues in clinical scenarios
- See self as a role model
- See simulation teaching as a student-centered activity

Skills and Behaviors

- Practical training with feedback from simulation experts
- Design scenarios in different clinical environment
- Operate and maintain simulation equipment including test trainer and low, medium and high-fidelity mannequins
- Use of debriefing and evaluation skills
- Skills to apply simulation pedagogy
- Facilitating and acting skills

Simulation Training

Training on simulation will be conducted by the manager of the simulation lab.

Educators will be scheduled for the training session by the manager. The sessions will be done in 8hours. Additional sessions will be based on the needs of the learner.

The session will cover using the simulation equipment and how to teach staff using the technology.

Summary

Creating a professional development program will help the educators to have a foundation for understanding their needs as educators and will be better able to support the needs of the learner

Competent simulation educators create positive, comfortable, trusting and emotionally safe learning environments.

For nurse educators to use simulation effectively, will require a broad range of competencies. They need widespread knowledge, behaviors, and skills to make use of what they have acquired from both nursing and education.

QUESTIONS

- You have concluded the development modules. I hope that you have found the information to be helpful as you continue to develop as an educator

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Appendix B: Interview Questions

Research Question: How do nurse educators decide whether to use simulation to assess nurse competency?

Interview Questions: I am interested in learning about your experience as a nurse educator working in the hospital. Tell me about your experience with using simulation.

What teaching methods do you use to assess initial and annual nurse competencies for nurses?

Describe a time when you used simulation to assess nurse competency. What made you decide to use simulation versus other teaching methods? What skills did you assess using simulation and what types of simulation did you use?

Research Question: How do nurse educators decide to use traditional methods of instruction to assess nurse competency?

Interview Questions: When conducting education for nurses, what types of teaching methods do you find are most effective to assess learning?

Describe a time when you used traditional methods of instruction to assess nurse competencies.

What made you decide to use traditional teaching methods versus simulation?

What skills did you assess using traditional methods and what type of

traditional methods did you use?

3. What are nurse educators' perceptions of the advantages and disadvantages of

using simulation for teaching nurses in the hospital setting?

A. Interview Questions: What do you think are the advantages and

disadvantages to using simulation to assess competencies? What challenges or

barriers do you face related to using simulation? What is needed for you to use

simulation effectively in assessing nurse competency?

Appendix C: Research Log/ Document Review

Date of review	Type of document reviewed	Procedures and competency checklist	Description of the source (teaching methods used) Demonstration, Verbalization, Observation, Test/Quiz, Simulation	Comments Scope of results recorded/ Initial/ annual competencies	Doc number

Appendix D: Demographic Data

Code Name_____

Gender_____ Ethnicity_____

Education_____

Years in Nurse Educator Role_____

Full Time Employment: Yes_____ No_____

Years in Nursing Profession_____

Appendix E. Sum of Code Frequency

Category 1: Experience with Simulation (36)

Simulation experience (15) from 7 cases

Orland Florida (3) from 2 cases

Ways to learn (2) from 2 cases

Evaluate nurse competency (6) from 4 cases

No simulation exp. (2) from 2 cases

Training (8) from 4 cases

Category 2: Initial-annual types teaching methods (36)

Annual competencies (3) from 2 cases

Donna Wright Competency (9) from 4 cases

Competency options (22) from 8 cases

Orientation (2) from 2 cases

Category 3: Traditional methods of instruction

Clinical skills (1) from 1 case

Education level (2) from 2 cases

     12. Teaching methods (25) from 7 cases

ICU (1) from 1 case

Category 4: Simulation to assess competency (3)

Simulation technology (2) from 2 cases

IT Technician (1) from 1 case

Category 5: Challenges or barriers (31)

Challenges (26) from 6 cases

Expensive equipment (5) from 3 cases

Category 6: Advantages/disadvantages to using simulation (21)

 Advantages/disadvantages to using simulation (21) from 6 cases

Appendix F. Document Review

Nurse Educator	Teaching methods	Count	% Codes	Cases	% Cases
P 1	Demonstration Observation	5	6.2%	1	12.5%
P 2	Policy review	2	2.5%	1	12.5%
	Video, hands-on clinical skills	3	3.7%	1	12.5%
	Clinical skills, video, return demo, policy review	4	4.9%	1	12.5%
	Documentation review, verbalization	5	6.2%	2	25.0%
P3	Discussion/reflection, Basic training	8	9.9%	2	25.0%
	Daily work, mock event, basic training	5	6.2%	2	25.0%
	Test, discussion, wound retreat	2	2.5%	2	2.5%
	VANA disc, group	2	2.5%	2	2.5%
	Resp discussion, test	2	2.5%	2	2.5%
P 4	Clinical test, discussion	2	2.5%	2	2.5%
P 5	Face-to-face, power-point	1	1.2%	1	12.5%
	Presentation	5	6.2%	1	12.5%

P 6	Video	3	3.7%	1	12.5%
	Documentation	1	1.2%	1	12.5%
	Writing	1	1.2%	1	12.5%
	Question, quiz, disc, youtube	7	8.6%	4	50.0%
	Power-point, disc	2	2.5%	1	12.5%
P 7	Direct Observation, verbal knowledge	15	18.5%	1	12.5%
P 8	YouTube video, return demo	2	2.5%	1	12.5%
	Simulation, mock code	3	3.7%	1	12.5%
	Informative, interactive	1	1.2%	1	12.5%

Appendix G: Professional Development Evaluation

Professional Development Evaluation Form

Date:	
Location	
Presenter (s):	

Please respond to the following statements by using the 4-point scale rating to indicate the extent to which you agree or disagree with each statement. Circle the number that applies.

4-Strongly Agree   3-Agree   2-Disagree   1-Strongly Disagree

The objectives were stated clearly and met	**4 3 2 1**
The content was well organized	**4 3 2 1**
The topics covered were relevant to the objectives	**4 3 2 1**
The information useful to my job	**4 3 2 1**
The training offered student-centered learning strategies using active learning	**4 3 2 1**
The training increased my knowledge and skills in educational strategies	**4 3 2 1**
I plan to implement simulation as a teaching method when assessing competencies	**4 3 2 1**
The time allotted for training was sufficient	**4 3 2 1**
Overall Evaluation Please add comment below:	**4 3 2 1**

Thank you for taking the time to complete this form.