2023

Educator Preparedness in the Use of Simulation in Nursing Education

Marcelene E. Hart
Walden University

Walden University

College of Education

This is to certify that the doctoral study by

Marcelene Erica Hart

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Sydney Parent, Committee Chairperson, Education Faculty
Dr. Anna Valdez, Committee Member, Education Faculty
Dr. Floralba Arbelo Marrero, University Reviewer, Education Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
2022

Abstract

Educator Preparedness in the Use of Simulation in Nursing Education

by

Marcelene Erica Hart

MSN, Walden University, 2013

BSN, Indiana Wesleyan University, 2011

Project Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

December 2022

Abstract

Nurse educators lack preparation when using simulation as a teaching modality in educating nurses and nursing students within their clinical environment. The purpose of this basic qualitative study was to understand nurse educators' perceptions of the challenges in preparing for simulation-based training experiences for nurses and nursing students. Vygotsky's constructivist theory was used as the conceptual framework for the study to emphasize students' innate ability to learn using active and hands-on processes through simulation experiences. Questions were developed to explore the challenges nurse educators encounter when preparing for simulation activities. Survey questionnaire invitations were sent through email to hundreds of nurse educators and completed survey questionnaires from 10 respondents were analyzed using NVivo, a computer-assisted software program. Data were first analyzed using open codes and axial codes, and later analyzed to identify emerging themes from the completed surveys that reflected the participants' perceptions. Identified themes were (a) nursing unit buy-in; (b) preparation; (c) resource availability; (d) professional development; (e) nurse education simulation feedback; (f) facilitation of knowledge, skills, and abilities; (g) mentorship and collaboration; and (h) collaboration and support. These findings led to the development of a 3-day professional development program to help nursing educators build confidence in using simulation as a teaching modality. This project study has potential for positive social change implications to improve patient care leading to increased longevity and community stability.

Educator Preparedness in the Use of Simulation in Nursing Education

by

Marcelene Erica Hart

MSN, Walden University, 2013

BSN, Indiana Wesleyan University, 2011

Project Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

December 2022

Dedication

My dedication to education and my nursing career has exceeded all expectations. A special thanks to my family for all the sacrifices, support, and love they provided; this love was from their heart and soul, and I could never be more thankful. I wish to thank my mother, husband, children, and countless mentors along the way for their exceptional support during my endeavor. My mom has been my biggest fan, and at times, I do not feel I could have done this without her support and love. I especially want to thank my mentor, Dr. Sydney Parent, for sticking with me and cruising through this journey together. Words could never show enough gratitude.

Acknowledgments

Journey is a short word to describe the efforts put forth in this study. I wish to thank my number-one mentor, Dr. Sydney Parent, for the countless telephone conferences, emails, and pep talks along the way. Dr. Parent is one of the smartest professors I know, and she cheered me on, supported my writing, and continued to guide me through. I also want to thank Dr. Anna Valdez for her support and for believing in me. Finally, my faith has led me through this beautiful journey. Without God as my biggest champion, I would have never succeeded. Thank you all for the lovely memories.

Table of Contents

Section 1: The Problem

The practice of teaching nurses and nursing students often relies on the preparedness and competence of nurse educators who have incorporated patient simulation into their clinical environment. Simulation as an instructional modality requires sufficient training and hours of preparation and is often used by educators as a secondary teaching method. High-fidelity simulations are often used as a formative or evaluative process of learning and help new nurses build clinical nursing skills, clinical decision-making skills, and the skills needed to interact as a member of the healthcare team (Hood, 2018). Simulation is additionally used as an evaluative process in assessing the learning outcomes for skills, clinical decision making, and interprofessional interactions. Nurse educators have been reluctant to use simulation as a teaching modality and are not appropriately using simulation to its fullest potential. Advanced professional development (PD) may help buoy instructor preparedness and competence levels to teach simulation in clinical nursing environments (Lafond & Blood, 2016).

The Local Problem

In this study, I explored the challenges of nurse educator preparedness when providing simulation-based training to nurses or nursing students. Nurse educators do not have the time to prepare for simulation-based training activities and may lack the resources needed when preparing to use simulation (nurse educator, personal communication, March 27, 2020). Locally, nurse educators involved in one midwestern, statewide, and nationally affiliated nursing association for PD shared the need for advanced training opportunities in simulation-based training activities. Many nurse

educators are assigned to teach using simulation as a teaching modality in their clinical environment, yet most are not prepared for this role. Nurse educators may lack the knowledge in simulation to develop and use simulation effectively in their clinical settings or courses (Jeffries, 2014).

Current literature suggests that, when learning both basic and fundamental skills, nurses and nursing students across the world need to gain confidence by practicing and demonstrating patient care skills in simulation laboratories (Staykova et al., 2017). Nurse educators need to be fully prepared and equipped with skills regarding the use of simulation to teach nurses and nursing students basic skills, ranging from simple to complex situations (Staykova et al., 2017). However, although hospitals have purchased simulators for nurse educators to use when training nurses or nursing students, nurse educators have trouble when preparing for patient simulation-based activities in the clinical setting. Nurse educators require time to learn about clinical simulations to provide the best simulation experiences to nurses and nursing students. Nurse educators are reticent to make the changes needed to use simulation-based training. Among nurse educators, most simulation instructors have between 2 and 5 years of experience. In contrast, other nurse association members who have many years of nurse educator expertise do not wish to learn the newest and latest technology.

Nurse educators must first develop a clear understanding of all elements needed to prepare for providing simulation-based training activities (Magee, 2016). Simes et al. (2017) found that many nurse educators involved in simulation were reluctant to use advanced technical equipment, such as the computerized mannequins, when providing

simulation-based activities. Previously, researchers have failed to study nursing educators' preparedness related to teaching using simulation (Magee, 2016). Future studies may open doors to explore nurse educators' confidence levels regarding simulation instruction, perceptions of simulation preparation, and challenges to providing simulation-based training.

Rationale

Nurse educators may lack understanding about what preparation is needed in simulation-based training and are reluctant to use simulation in nursing education. Improvement of educators' PD may provide practical simulation-based training experiences to nurses and nursing students. This study provides insight into the training and support resources needed to prepare nurse educators further to deliver simulation-based experiences.

The purpose of this study was to understand nurse educators' perceptions of the challenges they face in preparing for simulation-based training experiences for nurses or nursing students. Therefore, to understand how to equip nurse educators best to teach nurses and students in simulation-based training contexts, I designed this study to understand nurse educators' perspectives on this issue. Nurse educators should feel adequately prepared and confident in using the newest technology to train nurses and nursing students. Only after the challenges are understood can progress be made to close the gap in practice so nurse educators will feel prepared to provide high-quality simulation-based experiences to their nurses and nursing students, thereby providing the best training possible for these health care providers.

Definition of Terms

High-fidelity simulations: Healthcare simulation experiences that are incredibly realistic and provide a high level of interactivity and realism for the learner (Lopreiato, 2016).

Low-fidelity simulations: Healthcare simulation experiences that do not need to be controlled or programmed externally for the learner to participate (Palaganas et al., 2015).

Nurse educators' challenges: may find simulation difficult or may face other impediments when preparing for simulation-based teaching strategies. Training for all nurse educators can be challenging. Examples of those challenges include lack of integrity in running simulations, cost increases for part-time training educators, difficulty controlling the quality of simulations, and unsatisfactory delivery of simulations and debriefing (George Washington University School of Nursing, n.d.).

Nurse educators' competence: must be qualified and skilled to provide quality simulation activities to nurses and nursing students. Instructors require adequate skills to (a) achieve an acceptable level of performance in simulation, (b) update the competencies of practicing nurses, and (c) provide nurses with educational support to reduce turnover. Educators in healthcare are increasingly being expected to understand how to develop simulations, integrate them into teaching, and effectively assess simulated performance (Lane & Mitchell, 2013).

Nurse educators' confidence: needs to be self-assured when providing activities that promote the feeling that students are caring for patients well. Nurse educators must

consider the need for preparation before they can confidently teach high-fidelity simulated scenarios. Confidence is a belief in oneself and one's abilities (Faz et al., 2014).

Nurse educators' preparedness: require readiness, training, and education to perform simulation-based training activities effectively. Instructors who are not adequately prepared can impact student learning and patient safety (Yascavage, 2016).

Significance of the Study

This study is significant in helping nurse educators improve their preparation and feel confident when using high-fidelity simulations in their clinical environments. The goal of this study is for nurses and nursing students to receive the best possible training to care for patients. I explored specific viewpoints, perceptions, challenges, and experiences related to the preparation methods nurse educators use to provide patient simulation-based learning experiences.

I conducted a basic qualitative study to explore nurse educators' perceptions of preparations needed to address barriers and challenges when providing simulation-based training experiences to nurses and nursing students. Further, I explored how nurse educators interpret their simulation experiences, construct these experiences, and attribute meaning to their patient simulation-based experiences (as in Merriam, 2009). I discussed this problem of limited simulation training for nurse educators with a nursing director of education (personal communication, March 27, 2020), who indicated it might be appropriate to develop PD to improve nurse educators' confidence levels when using simulators. Without simulators, nurses and nursing students may not gain the knowledge

and essential skills needed to provide high-quality patient care. The findings of this study could lead to positive social change by helping improve nurses' and nursing students' knowledge and ability to provide patient care by gaining experiences from simulation exercises. Simulation exercises help students develop critical-thinking skills and become more confident in caring for patients.

Research Questions

I developed the research questions in this study to explore the challenges nurse educators encounter when preparing for simulation activities. The purpose of this study was to explore the challenges in nurse educators' perceptions when providing optimal patient simulation learning experiences to nurses and nursing students. Two research questions guided the study:

RQ1: What are nurse educators' perceptions of their challenges in preparing to perform simulation-based training activities?

RQ2: What support do nurse educators need to improve their competence when providing patient simulation-based activities?

Review of the Literature

I conducted a literature search to review the current extent of this problem among nurse educators and to identify strategies implemented to address the practice gap. The literature search consisted of searching for peer-reviewed journal articles through the Walden University Library and Indiana University's library databases, which included ProQuest, CINAHL, Ovid, and Google Scholar. I used keywords such as *nursing education, low-fidelity simulation, high-fidelity simulation, preparation,* and *instructor*

confidence as part of the literature search. I chose approximately 35 to 40 articles related to simulation in nursing education published from 2015 to 2019.

Conceptual Framework

For this study's conceptual framework, I used a constructivist theory of learning, averring that learning builds on existing knowledge. A learning theorist in constructivism, Piaget developed the theory that nurses, and nursing students can construct meaning from experience using existing knowledge (as cited in Merriam et al., 2007). I used a constructivist theory to explain how nurses and nursing students produce knowledge and form meaning based on their experiences in simulation-based activities (Teachnology, n.d.).

Constructivism was used to address the process of understanding the meaning of nurses' and nursing students' experiences provided by simulation-based activities (aligned with Creswell, 2009). The constructivist theory allows a focus on learning centers, such as simulation laboratories, that need to be appropriately equipped, provide small-group activities, and use problem solving in clinical decision making as a constructivist guide to assist the facilitator, who in turn supports learner needs (Berk & Meyers, 2016). Another constructivist learning theorist, Vygotsky (1962/1986) claimed that knowledge leads to cognitive development from personal experiences; cognitive development can further facilitate learning through encouragement, affirmation, and role modeling (Billings & Halstead, 2009). Using the constructivist theory, students can use an active learning process to construct the necessary knowledge through patient simulation-based activities and their life experiences (Hallmark, 2015). This

constructivist framework supported my exploration into nurse educators' perceptions of their preparedness when providing simulation-based experiences. This study helped me seek meaning from nurse educators' views, skill sets, and perceptions of how well they are prepared for patient simulation-based experiences (see Creswell, 2009).

Review of the Broader Problem

I conducted an extensive search of the literature and explored nurse educators' use of patient simulators when teaching nurses and nursing students. Teaching with high-skilled technology such as simulators is a skill that needs thoughtful planning and ample time for preparation. Patient simulations used in teaching are necessary for nurses and nursing students to develop patient skills (Garbuio et al., 2016).

The literature suggests many clinical laboratories use simulation as a modality for teaching. However, few systematic approaches exist that assist nurse educators in learning this skill (Peterson et al., 2017). Planned nurse educator development is necessary to use simulation as a quality teaching method when instructing nurses and nursing students (Peterson et al., 2017). Future practices of patient simulation will rely on trained educators who can integrate simulation, thereby maximizing instructor competency in simulation instruction (Roh et al., 2016). Further education could be a valuable resource for optimizing nurse educators' development, knowledge, skills, and ability to perform high-quality patient simulations. Nurse educators who are preparing to provide simulations can use this preparation to improve their practice (Sharoff, 2015). As a result of the preparation, educators can explore alternative teaching strategies outside of those found in the traditional classroom environment (Carson & Harder, 2016). The

advancement of operating technology, such as computerized mannequin technology, requires preparation and additional training, but is often not a complicated process (Willhaus, 2016).

Simulation on a National Level

On a national level, nursing organizations often lack training for nurse educators to effectively provide quality teaching experiences using advanced simulation technology (Nestel et al., 2016). Therefore, nurse educators remain inadequately trained, and patient simulation-based training remains underused (Hallmark, 2015). A need persists in developing more training modalities in patient simulation (Nestel et al., 2016).

Due to a lack of clinical sites and a shortage of nurses, educators may use simulation to replace portions of required clinical time at clinical sites when training nursing students (Jeffries et al., 2015). Further, clinical experiences could occur in a laboratory setting using simulation as an option to replace hours at the clinical site (Hallmark, 2015). Although many nursing programs and organizations have spent thousands of dollars on simulation equipment and space for the laboratory, nurse educators underuse patient simulations due to reluctance in properly learning how to conduct and operate the simulators (nursing dean, personal communication, January 7, 2018).

Low-Fidelity Patient Simulations

Nurse educators often use low-fidelity simulations to support nurses, nursing students, or professionals in learning a clinical situation or practice. Examples of low-fidelity simulations include case studies, role playing, or task trainers (Lopreiato, 2016).

Low-fidelity simulation does not need to be controlled or programmed externally for the learner to participate (Palaganas et al., 2015). Thus, clinical laboratories often use case studies and role playing to provide students with a useful hands-on experience. However, these simulations usually take time to prepare and require time in the classroom or laboratory setting.

High-Fidelity Patient Simulations

Nurse educators have used simulation-based training since the 1950s. Nursing simulations began by creating a fictitious environment to simulate lifelike practices when developing learners' skills (Garbuio et al., 2016). However, simulation in higher education broadly shifted in the mid 1970s due to rapid advances in computer technology. Over the past 40 years, nursing programs have continued to use low-fidelity and high-fidelity mannequins to deliver simulation as a teaching modality (Nehring & Lashley, 2009). This shift in learning resource centers led to the need to use personal computers and interactive media effectively. This paradigm led to the use of mannequins, evolving from cardiopulmonary resuscitation mannequins into full-bodied, lifelike models. The use of lifelike models then led to the use of high-fidelity simulators or human patient simulators.

High-fidelity simulation involves the use of interactive, realistic, and full-bodied simulators that provide multidimensional responses from computer-generated technology (Bogossian et al., 2017). The practice of patient simulation is an interactive, hands-on learning opportunity for students to practice classroom knowledge while demonstrating learned skills (Hallmark, 2015). Educators use mannequins as standardized patients,

identified as a crucial need for a future that supports a competency-based learning design through simulation (Allvin et al., 2017). Nurses and nursing students benefit from having a realistic replica to demonstrate their healthcare skills.

Nurse Educator Preparedness

Nurse educators have unmet needs related to academic practices, clinical policies, and simulation activities (Suplee et al., 2014). Additionally, nurse educators are challenged to find time for preparation and lack support and PD funding (Aldridge, 2016). Some nurse educators cannot fully integrate simulation experiences into their programs due to the extensive time needed for the preparation of simulation activities (Landeen et al., 2015). Nursing organizations demand an efficient and effective use of resources for nurse educators to use simulation (Carson & Harder, 2016). Although simulation plays a vital role in teaching nurses and nursing students (Hunt et al., 2015), nurse educators remain uncomfortable using simulation technology (Carson & Harder, 2016). With the use of simulation, educators could better prepare nurses and nursing students for clinical instruction. For instance, simulation-based experiences help build confidence levels among nurse educators (Hunt et al., 2015).

Some educators may experience feelings of inadequate training and underuse of technological equipment (Hallmark, 2015). Moreover, nurse educators might lack the knowledge and skills needed to use a specific teaching modality when engaging nurses and nursing students in simulation-based training (Hallmark, 2015). Additionally, a lack of training in the use of simulation can lead to poor educational pedagogy. Pedagogy, also known as the art and science of helping adults learn, is an educational framework in

adult education that helps guide the development of curriculum and teaching–learning processes to assist nurse educators in facilitating learning in the simulation environment (Billings & Halstead, 2009). Nursing is known to be an art and a science (Carper, 1978). In higher education, faculty face many challenges and must find new, creative, and innovative ways of teaching and implementing new delivery systems for learning (Billings & Halstead, 2009).

Nurse educators should receive sufficient training in the use of simulation (Lafond & Blood, 2016), as clinical expertise does not provide adequate experience to be an effective simulation instructor. Further, future practice should include the integration of simulation-based learning into hospital-based training. Qualified instructors should provide simulation-based training to those who are not overburdened with busy schedules in their coursework (Lafond & Blood, 2016).

Nurse educators are often aware of the advantages that simulation may provide; however, some seasoned instructors feel uncomfortable with simulation activities (Janse van Vuuren et al., 2018). Instructors may lack motivation when learning new skills and may struggle with technological advances, causing frustration, anxiety, and reluctance to use simulation. Nurse educators need guidance when implementing simulation in the nursing curriculum (Luetke, 2016). Professional training should be implemented in simulation laboratories with instructors who are competently and confidently prepared to provide simulation-based learning (Omer, 2016; Peterson et al., 2017; Staykova et al., 2017). The use of patient simulation for nurses and nursing students can improve with

instructor preparedness in the classroom and laboratory settings and should be integrated into all forms of nursing education (Moyer, 2016).

Nursing programs are currently using simulation activities in a laboratory setting to enhance nursing students' learning abilities through lifelike, patient-oriented clinical experiences. With a shift in the paradigm of learning and the most current technology, nursing instructors need to be appropriately trained to effectively operate high-fidelity patient simulators. However, reluctance in using simulation may prevent nurse educators from learning new teaching methods. Additionally, instructor reluctance in the use of technology may include technical issues that also may hinder the ability to provide a quality learning experience. Nurse educators have difficulty preparing patient-simulation activities due to a lack of sufficient time to develop simulation scenarios and increased need for additional support personnel to operate the simulation equipment (Park & Yu, 2018). Moreover, there is a need to further train those who are providing training on simulation-based learning; however, this training cannot be achieved without standardization of operation and policy (Park & Yu, 2018).

Nursing Student Perceptions of Simulation

The use of simulation as a teaching strategy expanded in the early 2000s and continues to be a successful way of providing learning experiences for nursing students. Often, students have different perceptions of what patient simulation is or what it should be. Many students feel high anxiety levels when experiencing simulation and are often terrified of the simulation activity (Woda et al., 2016). Feelings of anxiety, stress, and inadequate skills with patient simulation contribute to simulation apprehension (Basak et

al., 2016; Lestander et al., 2016). Despite this apprehension, students have better patient skill sets after experiencing simulation training. Positive simulation experiences can improve nursing students' knowledge, understanding, competence, and skills (Sundler et al., 2015).

Implications

The purpose of this study was to understand nurse educators' perceptions of challenges when preparing for patient simulation-based training experiences for nurses and nursing students. Evidence from this study's findings related to the challenges in simulation-based learning supports the implications regarding instructor preparation for simulation.

Changes in practice related to the study findings may involve properly training educators in a simulation before initiating simulation activities. For example, the study findings may lead healthcare leaders in other healthcare settings to develop a PD plan to implement training in simulation using patient simulations and simulators. Such PD should consist of computer-based training, hands-on practice, and operating a simulation scenario. Specifically, nurse educators could participate in a 3-day (24 hours total) PD simulation-training webinar to learn to be effective and confident when preparing for simulation activities. The learning outcomes would be for each educator to pass a simulation course before working with simulation in their teaching. In terms of the target audience, all nurse educators should complete the PD modules. This 3-day hands-on training camp would entail individual one-on-one sessions and computer-based modules to complete the course. After completing the modules, each educator would have to

efficiently operate a basic simulation with a person posing as the student for an evaluation.

Following PD, instructors should provide practical simulation experiences for nurses and nursing students. Instructor preparedness will then increase due to professional simulation development, allowing instructors to rehearse with a simulation that is integrated into practice and may alleviate some instructors' struggles with confidence, competence, and self-satisfaction when providing simulation to nurses and nursing students. Further instructor simulation training might add to the quality of the simulations offered to students, thereby enhancing students' skill levels to provide effective and safe care to patients.

Summary

The problem of insufficient instructor training on simulation exists on the local level and nationally; thus, the purpose of this study was to discern instructors' perceptions of their preparedness and competence when providing simulation activities for nurses and nursing students. In Section 1, I presented the local problem relating to nurse educators at a midwestern professional nursing organization. In this section, I described the rationale for the study, presented definitions of terms included, and explained low- and high-fidelity patient simulations. I also discussed instructor preparedness, confidence, competence, and challenges. In this section I presented the two research questions that guided the study, along with a review of research articles, an explanation of the broader problem, how others addressed the problem, and identified the issues surrounding this topic.

In Section 2, I describe the basic qualitative research design used to conduct the study and answer the study's research questions. In my study, I addressed Walden University's criteria related to selecting participants, data collection, and analysis of the data. In Section 3, I described the final project and includes information on the project genre, the rationale for the study, additional reviewed literature, the project description, the evaluation plan, and the study's implementation. Last, in Section 4, I detail the project's strengths and limitations, recommendations for alternative ways to address the problem, and alternative solutions to the local problem. Additionally, in Section 4, I discussed project development, leadership, and change based on what was learned through the research processes. Section 4 closes with reflections, implications, applications, future directions for research, and the final study's conclusions.

Section 2: The Methodology

In this research project, I aimed to explore nurse educators' perceptions of their challenges when preparing for patient simulation-based training for nurses and nursing students. I selected a basic qualitative method to analyze what challenges nurse educators experience and their perceptions of what preparation they need when providing patient simulation-based training experiences for nurses and nursing students. The focus was on nurse educators' perceptions and the challenges they experience when preparing for patient simulation-based activities (as suggested by Ravitch & Carl, 2016).

I used a self-developed questionnaire survey tool to collect data and the computer software program NVivo to organize the coded data from the survey responses. NVivo is a qualitative data analysis software program used to transcribe, classify, and code small or large volumes of data (QSR International Pty Ltd, 2020). Nurse educator participants were from a statewide nursing PD organization affiliated with a national association that has approximately 200,000 active members. The data from the surveys helped me answer the following two research questions:

RQ1: What are nurse educators' perceptions of their challenges in preparing to perform simulation-based training activities?

RQ2: What support do nurse educators need to improve their competence when providing patient simulation-based activities?

Research Design and Approach

Prior to conducting the study, I researched nurse educators' perceptions of preparation on simulation. The purpose of this study was to understand nurse educators'

perceptions of the challenges when preparing for simulation-based training experiences for nurses and nursing students. I used a basic qualitative research design to best describe nurse educators' challenges when preparing for simulation-based activities while exploring meanings from their simulation experiences (Creswell, 2009). Furthermore, I used a subjective research design that allowed me to describe and promote an understanding of human experiences from the nurse educators' perceptions of their challenges using patient simulation (see Burns & Grove, 2009).

My goal was to explore nurse educators' perceptions of their use of simulation, which required using survey questions to capture nurse educators' views on the challenges they experience when performing or preparing for simulation-based activities in a teaching context. I collected data through the survey questionnaires to generate a personal, meaningful narrative and better understand simulation use. I asked open-ended interview questions to capture the information needed to explore and answer the research questions.

I chose a basic qualitative research design for this study because it provided the best way to explore the viewpoints, experiences, and challenges associated with nurse educators' perceptions when preparing for and overseeing simulation-based activities (aligned with Creswell, 2009). The open-ended questions in the survey allowed the participants to respond in any way they chose and provide insight into their experiences of implementing simulation-based education (Rubin & Rubin, 2012). Finally, a basic qualitative design uses fewer participants and allows for more in-depth responses from a limited selection of participants (Lambert, 2012).

Several other research designs exist; however, these designs were not the best fit for this study. First, a quantitative research design would not work for this study because I was not seeking to identify cause and effect, patterns of behavior, or associations between variables (Lambert, 2012). Second, I declined to use a phenomenological approach because this approach focuses on individuals' lived experiences of a phenomenon or a specific event, thus requiring more time. In the context of this study, it would have taken too long to capture the essence of nursing faculty members' affects, emotions, or intense human experiences (as in Merriam, 2009). Furthermore, the focus of this study did not include the lived experiences of nursing instructors or a specific event. Third, the grounded theory was not appropriate for this research because grounded theory is used to develop a theoretical idea from the data (Merriam, 2009). Fourth, ethnography was not appropriate for this study because I did not select a particular culture to research, and ethnography emphasizes a specific culture through the lens of fieldwork (Merriam, 2009). Last, mixed-methods research requires a strategically combined use of larger sampling sizes and the integration of qualitative and quantitative methods. A mixed-methods design was not appropriate for this study because I could answer the research questions without the need for a more varied data collection method (see Merriam, 2009).

Participants

I recruited participants from a statewide professional nurses association in the Midwest that has approximately 200,000 active members and is affiliated with a national association. Each member has a vast level of experience, which was an asset to my study.

Nurse educators who had previously used simulation or who were using simulation in their current practice as a teaching modality were eligible to participate in the study.

Criteria for Participant Selection

I selected 10 nurse educators for this study to achieve saturation in the data collection process. Data saturation is the point when no new data emerges from data collection (Ravitch & Carl, 2016). Participants included either full-time or part-time nurse educators who use simulation in their current practice or had previously used simulation as a teaching modality to nurses or nursing students. Each participant was, at a minimum, a registered nurse who had experience in simulation-based teaching methods. Next, I categorized nurse educators in the following brackets regarding teaching experience using simulation as a modality: 1–5 years, 6–10 years, or 10 or more years. I selected 3–4 participants for each category of experience.

All participants were active members of the nursing association, and the president of the association forwarded the survey questionnaire to members. Prior to participation in the survey, I asked participants to complete a short demographic survey where they referenced their years of experience in simulation. I asked each participant if they would like to be included for follow up through direct contact to the email provided to make the most of the qualitative data obtained through the survey.

Gaining Access to Participants

I recruited participants after gaining approval from Walden University's Institutional Review Board (IRB). I received a letter of cooperation (see Appendix A) from the organization's president, and IRB approval (#06-19-20-0290487) was obtained

from Walden University. I sent out invitations to the professional association for individuals to participate in my study and included the study's purpose statement. My contact information was included in the invitation email, along with two personal contact telephone numbers.

After approval from the IRB, I forwarded the questionnaire surveys to the organization's president. She then disbursed the surveys via email to the active members of the association. The association email was the preferred contact method for gaining access to participants. I only used the data from the nurse educators who responded by email that they wished to participate in the study. The survey responses and all information pertaining to the study were kept confidential. The survey was voluntary to fill out, and participants could opt out at any time. Participants did not need to sign a consent form because the surveys were conducted anonymously.

Ethical Protection

As the researcher, I maintained professionalism and maintained confidentiality regarding the survey data. I respectfully demonstrated authenticity and honesty when I engaged in the research through anonymous surveys (see Ravitch & Carl, 2016). Additionally, I obtained approval from the Walden University IRB before initiating any research with participants. Protection of participants' privacy was the highest priority, and I kept all survey data anonymous and confidential. Participants were provided a brief description of the study and a clear and concise explanation of voluntary participation. Participants could withdraw participation at any time, and participants did not receive any monetary rewards or gifts. A consent form was not necessary because the surveys were

conducted anonymously. After data collection, I conducted a confidential analysis of the data and stored the analysis results on my personal computer using a password-protected data collection software program, NVivo. The data will be destroyed using a confidential records-destruction company following the research term limit of 5 years from study completion.

Data Collection

In this study, I collected data using survey questionnaires. The data collection instrument consisted of a researcher-generated survey questionnaire protocol hosted through SurveyMonkey, a free qualitative online survey tool used to collect responses from individuals. The survey was used to collect demographic information, such as years of experience in simulation-based learning, any certifications held, and measurements of comfort and confidence levels of the individual using simulation. I used the researcher-created tool to gain access to nurse educators' perceptions of simulation preparedness and challenges when performing simulation-based activities.

To create a survey tool, Ravitch and Carl (2016) recommended that researchers adapt an instrument or protocol tool with open-ended questions. Additionally, Polit and Beck (2018) postulated that open-ended questions allow each respondent to express their opinions in their own words. In this study, I used the International Nursing Association for Clinical Simulation and Learning Committee's (INACSL; 2016) Standards of Best Practices in Simulation as a guideline to develop the survey's open-ended questions (as suggested by Sittner et al., 2015). These current standards of practice are the latest guidelines regarding the practice and use of simulation. Using the survey, I explored 10

nurse educators' points of view and carefully analyzed the data to provide quality answers to the research questions (see Rubin & Rubin, 2012). Specifically, the survey included five to seven questions pertaining to each research question. In total, the survey asked 12 open-ended questions (see Appendix B). Potential participants had 1 month to complete the survey, and the time allotted to complete the survey was limited to 1 hour.

To analyze the survey data, I entered the responses verbatim into NVivo, a computer-assisted data software program (aligned with Ravitch & Carl, 2016). I used the participants' information to compare the answers, which helped me sort through and group the data. I also used reflective journaling to review trending data and identify emerging themes. I used a color-coded number system to organize survey entries from each participant and each survey question.

Role of the Researcher

I am a current nurse educator who teaches didactic and simulation-based learning activities. The site for this research was a statewide nursing association for PD located in the Midwest that is affiliated with a national association. I have no conflicts of interest to report. I did not have any relationship or authority over any potential or actual participants.

Data Analysis Procedures

I transcribed the participant data into the NVivo computer software program and analyzed and grouped the data, which helped in identifying the themes. The responses were organized from each participant's perspective, and similarities were noted through open coding (Lambert, 2012). To analyze the survey data, I entered the responses

verbatim into NVivo. I used the participants' information to sort and compare the answers, which helped me group the data. I also used reflective journaling to review trending data and identify the emerging themes. I used a color-coded number system to organize the data.

I analyzed the survey responses and kept track of the data appropriately by securing and storing the information. All participants had the option to provide their contact information if they wished to be contacted to provide any additional information once they completed the survey. As suggested by Ravitch and Carl (2016), researchers may send follow-up surveys to ask additional questions if needed. I did not need to send any follow-up surveys because I did not need to collect any additional information to gain a comprehensive insight.

Using NVivo, participants' responses were organized and coded into categories for easy retrieval of information (see Babbie, 2017). After categorizing the information, I used key terms and phrases to sort the data into codes. *Coding* refers to assigning a label to specific pieces of data using a single phrase or word, numbers, letters, or a combination of any of these (Merriam, 2009). After the first cycle of coding, I grouped the first set of codes and assigned categories to the survey data using a word or phrase (as in Saldaña, 2016). Axial coding began with grouping or relating the categories to each other and sorting through the data to assign similar codes. Next, I composed descriptions of clusters from the coded data using a constant-comparison method from the first and second cycles of coding. After coding was complete, I organized the categorized units and began to observe possible emerging themes from the data. Through data analysis, I

was able to identify and develop emerging themes that explained the participants' meanings, viewpoints, and experiences regarding simulation activities.

Evidence of Quality

My goal was to accurately report the survey data and corresponding themes (as in Rubin & Rubin, 2012). Researchers achieve credibility by assuring that participants' written survey responses accurately represent participants' experiences (Rubin & Rubin, 2012). The goal of the study was to explore nurse educators' perceptions of how they use and prepare for simulation and how to improve preparation for quality simulation experiences. I ensured that participants' written responses in the survey were accurately represented based on the experiences from each nurse educator.

Discrepant Cases

Discrepant cases are elements of data that do not fully support the specific patterns that emerge from data analysis (Cohen & Crabtree, 2006). A researcher must examine all data to identify any perceptions and experiences from participants that differ from the predominant emerging patterns. Ravitch and Carl (2016) explained that discrepant cases provide disconfirming evidence that may stand out or counter the potential findings of the research. I did not find any discrepant cases within the survey responses. Similarities from each respondent were evident in the participants' answers.

Data Analysis Results

I gathered survey responses of nurse educators in a midwestern, statewide, and nationally affiliated nursing PD association. From the survey responses, I identified the challenges that nurse educators experienced when preparing and providing simulation-

based training to nurses or nursing students. For instance, nurse educators often do not have the time to prepare for simulation-based training activities and lack the resources needed when preparing to use simulation (personal communication, March 27, 2020). In alignment with this study, I used constructivist theory to address the process of understanding the meanings of nurses' and nursing students' experiences provided by simulation-based activities (aligned with Creswell, 2009). The survey participants shared the need for advanced-training opportunities in simulation-based training activities. Many nurse educators were assigned to use simulation as a teaching modality in their clinical environment and wrote that they were not prepared for this role. They shared concerns of lacking knowledge needed for simulation to develop and use simulation effectively in their clinical setting (see Jeffries, 2014).

Individual survey links for the 12-question survey were emailed to over 200,000 members of the nursing PD association. I received 10 completed surveys back. The average time taken for each participant to complete the survey was 15–20 minutes. The completed data analysis was compiled after the survey invitations closed in SurveyMonkey. I completed a review of each participant's survey responses within 1 week of receiving the completed survey.

After receiving all completed surveys, I wrote each survey response in my research journal and transferred the response into NVivo, which focused on keywords and phrases used by each respondent. In addition, I created a separate Excel spreadsheet, which is stored on my password-protected personal computer. In this spreadsheet, I highlighted reoccurring terms and phrases. I further separated the NVivo data to split the

data into codes, which helped me to funnel the information into smaller categories. After the open-coding process, I used axial coding to examine the context-rich codes that directly supported the constructivist framework by describing the respondents' explanations, interactions, and their common themes that were reflecting in their answers (see Polit & Beck, 2018). Additionally, SurveyMonkey illustrated similarities in word phrases using a word cloud, which helped to group the respondents' answers into critical components and assisted me with identifying the emerging themes for this study. From the axial coding process, I clustered each set of participant responses into categories that merged into four themes for each of the two research questions. After developing the findings from the emerging themes, a doctorate-prepared peer debriefer and I compared and reviewed the data, including the codes that led to the themes I used. The peer debriefer agreed on the codes that merged into each theme.

Findings

I organized the findings according to the following two research questions:

RQ1: What are nurse educators' perceptions of their challenges in preparing to perform simulation-based training activities?

RQ2: What support do nurse educators need to improve their competence when providing patient simulation-based activities?

Survey Questions 1–7 were intended to gain information from participants regarding support needed to help them improve competence when providing simulation-based training activities. I used this group of questions to gather responses to answer RQ2 and to better understand participants' perceptions of the challenges they face when preparing

simulation-based training activities. Each survey question was formulated so that participants could share feelings, beliefs, and perceptions about simulation from their personal experiences.

I identified eight major themes from the survey responses. Themes 1–3, which answer Research Question 1, include nursing unit buy-in, preparation, and resource availability. Themes 4–8 answer Research Question 2. These themes are PD; nurse education simulation feedback; facilitation of knowledge, skills, and abilities (KSAs); mentorship and collaboration; and collaboration and support.

Research Question 1

Research Question 1 asked: What are nurse educators' perceptions of their challenges in preparing to perform simulation-based training activities? This research question has three corresponding themes: nursing unit buy-in, preparation, and resource availability.

Theme 1: Nursing Unit Buy-In. I identified the theme of nursing unit buy-in using the following six codes: participant availability, scenario realism, evidence-based practice in debriefing techniques, leadership support, and knowing the nursing unit's expectations. Nursing unit buy-in refers to collaboration with other educators and managers for simulation-based activities. For example, Respondent 5 reported that nursing staff are often reluctant to participate in simulations, which affects nursing unit buy-in. Respondent 5 stated, "limited time during the shift on the nursing unit prohibited nurses from participating in simulation activities on the nursing unit." Moreover, limited time on the nursing unit prevents nurses from participating in simulation activities during

the workday. Notably, Respondent 6 listed specific criteria to help increase nursing unit buy-in and incorporate simulation as a means for identifying specific situations for each nursing unit:

> 1. Meet with the managers/directors that are requesting the simulation. Establish the learning objectives and goals. 2. Select dates/times for the simulation and put on the calendar at the time of the initial meeting. 3. Research the situation/case for what would be expected in the simulation situation. An actual case is a great tool to use as a template. 4. Write the scenario. 5. Send to the manager/director. 6. Meet with manager/director to make tweaks to your scenario.

Theme 2: Preparation. Theme 2 emerged at the end of axial coding and six sub-categories were identified: (a) preparing debriefing questions, (b) learning the equipment, (c) reviewing the simulation, (d) simulation practice, (e) PD, and (f) piloting the simulation. Survey Questions 8, 9, and 10 asked survey respondents about how nurse educators think they should prepare for simulation. Four participants did not answer these survey questions.

In answering Survey Question 8, which asked participants how they think nurse educators should prepare for simulation, Respondent 1 commented that reading the simulation scenario prior to the experience would help nurse educators better prepare. Similarly, Respondent 2 shared that reviewing the simulation in advance, having some questions prepared for debriefing, and setting up supplies would help nurse educators be better prepared for simulation activities. Additionally, Respondent 3 expressed that nurse

educators need more time to write out a well-defined scenario with step-by-step instructions on controlling the mannequin/computer program. The written scenario and instructions would allow anyone attending to know what is expected for that specific simulation activity. Respondent 7 commented that the important items for nurse educators' preparedness in simulation are for them to review the simulation content and the literature/evidence that supports the simulation. Respondent 7 further stated that it is necessary for nurse educators to prepare with any other facilitators or staff who assist with the simulation to ensure that everyone's expectations are aligned with the scenario.

Survey Question 9 asked participants to share their perceptions of the challenges they experienced in a simulation-based learning experience. Respondent 9 shared that one challenge was finding the time and funding to attend PD simulation programs that would help them better understand the time needed to prepare when implementing a simulation scenario.

Survey Question 10 asked participants about the challenges they consider when preparing for simulation activities. Respondent 10 answered this question by sharing a list of recommendations for ways that one can best prepare for the simulation activity. These suggestions included learning to write a simulation scenario, watching one being performed, and experiencing hands-on practice.

Theme 3: Resource Availability. The theme resource availability emerged from the following six codes: (a) space, (b) equipment, (c) educators, (d) simulation technicians, (e) time to write and research scenarios, and (f) lack of KSAs. Survey Questions 9 and 10 elicited similar results and overlapped with other themes due to

similar questions on the survey. Survey Question 9 asked the respondents about their perceptions of the challenges experienced in simulation, and Survey Question 10 asked the respondents about what they consider challenging when preparing for simulation activities. These two survey questions received similar responses from the participants.

In response to Survey Question 9, Respondent 3 commented on the perceptions of the challenges in preparing for simulation-based training activities and the importance of having "time in learning new functions on the mannequin and being comfortable with the skill of simulation." Respondent 4 described a need for formal and informal education and the application of the acquired knowledge to perform simulation skills. Additionally, Respondent 6 stated that perceptions of the challenges experienced were as follows:

> The time needed to accomplish the simulation's preparation tends to be more than anticipated. Having an allotted scheduled time to work in a quiet area to research and write scenarios would be immensely helpful. It is important to have the manager/director present in the scenario as an embedded participant or standardized patient or recorder. This would help management hear first-hand what their staff has learned and identified as areas of improvement.

Respondent 7 shared the challenges they have encountered with simulation and discussed the need to train on equipment that is harder to simulate both aspects of technology and a human influence. However, not all technology can produce life-like, realistic scenarios. Some other challenges that influenced simulation were shared in responses to Survey Questions 8 and 9. For instance, Respondent 8 stated that "yes, simulation should be an essential part of competency as a nurse educator. Limited

simulation center availability due to COVID-19 and limiting nurse educators who were able to run the simulators."

Technology issues and time allotted for simulations were identified as challenges. Respondent 9 stated that technical issues represent a significant challenge, as high-fidelity mannequins require simulation technicians or at least two facilitators to operate, run, and video a simulation so that it is performed correctly. Other respondents described a need to observe more simulations to effectively perform a debriefing at the end of the simulation. Respondent 10 stated that a minimum time should be allotted for the simulation and that the facilitator must know when to end the activity and move forward to the debriefing activity.

Research Question 2

Research Question 2 asked: What support do nurse educators need to help them improve their competence when providing patient simulation-based activities? The following four themes correspond with this research question: PD, nurse education simulation feedback, facilitation of KSAs, mentorship and collaboration, and collaboration and support.

Theme 4: Professional Development. Each respondent was asked to describe competence and they feel nurse educators need to improve in simulation. An additional survey question asked the respondents to comment on what is required to improve competency in simulation skills. PD is used as an umbrella term in Theme 4 because the term PD emerged from several other categories such as advanced education, simulation

conferences, simulation practice, evidence-based practice, nursing experience, and time to develop scenarios.

All respondents shared similar responses regarding PD. Additionally, the respondents' answers regarding competence in simulation were consistent throughout the survey. When the survey respondents were asked how they could improve competence in simulation, Respondent 1 answered that "simulation conferences and advanced simulation education, along with practicing with the experts and completing videos, and modules related to simulation could offer valuable resources in the development of simulation skills." Respondent 2 posited that reading best practice articles, using hands-on simulation practice, and learning about educational opportunities in how to debrief were all types of PD that would enhance simulation skills. Bradshaw and Lowenstein (2014) described evidence-based practice as an essential systematic approach to problem solving that can be applied to hands-on practice in simulation and educational learning opportunities. Respondent 3 provided a list of specific teaching modalities that could be beneficial in supporting the need for PD growth in simulation:

> Attending conferences specific to simulation. The ability of someone to perform a skill correctly and efficiently. Spending time getting to know the mannequin and its capabilities. Having time to write scenarios. Visiting the units to get an understanding of their needs. Technology support would be helpful if someone could run that part while another person is facilitating the sessions.

Respondent 4 also shared a need to receive PD in simulation. PD serves as an opportunity for advancement of simulation skills because nurse educators can engage in

"completing online courses" in simulation (Hood, 2018, p. 15). Additionally, Respondent 5 explained that attending simulation training and working with experienced nurse educators would help provide PD opportunities. Hood (2018) stated that "role models provide nurses with examples of how to be, and mentors provide guidance and emotional support" (p. 15). Respondents 6, 7, and 8 agreed with other respondents that annual simulation training and a course for new educators would be beneficial in supporting simulation-based activities. Respondent 9 shared that evidenced-based best practices, practicing the simulation, mentorship, and educational programs would also assist new nurse educators and support students' learning. Respondent 10 contended answering the survey questions by stating:

> That having a good knowledge base of what simulation is, how to work thru a complete simulation experience; how to run the sim; how to conduct a great debrief session; the questions to ask as to the learning objectives of the SIM experience. Attending PD and working with well-trained simulation technicians can assist with the transition into the simulation experience.

Theme 5: Nurse Educator Simulation Feedback. Theme 5 emerged as nurse educator simulation feedback from these five codes: peer review, evaluations, mentoring, prebriefing, and debriefing. Respondent 2 expressed that there is a need to review simulation evaluations to improve nurse educators' ability to utilize their simulation skills and develop their competence in debriefing activities. Respondent 3 described the best practice of having a mentor who is competent to proficient in simulation skills to help nurse educators improve competence levels in simulation activities. Respondents 9 and

10 similarly commented that feedback from mentors assists in continued growth in simulation along with effective debriefing.

Respondent 4 suggested that the following practice areas are needed to gain competence in simulation activities: (a) working with a mentor or expert, (b) having the ability to apply and practice simulation skills, and (c) receiving feedback when performing a simulation activity. All the suggestions could contribute to a successful simulation-based learning experience. Respondent 5 further recommended that prebriefing and continued practice help lead to confidence and competence in developing simulation skills. Respondent 7 stated that nurse educators must understand the simulation process and engage in peer review as a method for feedback from fellow nurse educators. Respondent 8 agreed that having a formal process of evaluation helps nurse educators to improve the technical skills needed to effectively prebrief, debrief, develop scenarios, and operate the simulation activity. An evaluative process could help nurse educators to improve the skills needed to provide a quality simulation experience.

Theme 6: Facilitation of KSAs. The facilitation of KSAs theme emerged resulted after merging nine different codes: (a) realistic scenarios, (b) standardization and consistent duplication of a simulation scenario, (c) organization, (d) observing a simulation, (e) active listening, (f) asking probing questions, (g) having the right simulation equipment, (h) writing realistic learning outcomes, and (i) having guided simulation checklists. This theme is a significant category because it demonstrates a need to be able to perform and plan a simulation, write simulation scenarios, and operate the simulators effectively for a high-quality simulation experience.

Respondents 1–8 all agreed with the need to practice with experts in simulation to improve KSAs. Respondent 2 shared a list of criteria of what is needed to improve nurse educators' KSAs:

> Use realistic scenarios to increase buy-in. Equipment needs and to attend hands-on sessions. Work with an expert. Comfort in ability to utilize skills. Comfort in organizing the simulation so that it runs smoothly. Observation skills and checklists to help set up the activity and detailed information on the skills that we are looking for.

Respondent 3 answered Survey Question 1 regarding how to better improve in simulation by sharing that there is "a need to have a designated simulation technician and this would be necessary to facilitate simulation sessions." Respondent 4 shared that, along with consistency, a combination of KSAs within the simulation environment are all necessary criteria that would improve simulation.

Additionally, Respondent 4 shared that realism in the simulation would assist with accurate outcomes in the expected domain of learning. This respondent further shared that having access to a simulation expert would improve any simulation skill. Additionally, Respondent 5 commented that a complete simulation on the nursing unit or in a simulation lab would help to improve the nurses' knowledge and skills at the bedside. Respondent 6 concurred with Respondent 3 regarding the need to work from a standardized template and have sufficient knowledge or skills to provide care. Respondent 7 stated that simulations need to be more specific and have more realistic, life-like outcomes for the activity. Respondent 7 also posited that a standardized

simulation checklist would be helpful to further create realistic scenarios. Respondent 8 shared that having knowledge of technical skills and the ability to perform the simulation would better improve the outcomes of the simulation. Finally, Respondent 9 shared that effective communication with team members could also improve the simulation as well as following best-practice guidelines. Cherry and Jacob (2019) shared that one best practice for simulation is to reach a more realistic simulation effect and to have a more standardized simulation process. A standardized process for simulation would be a uniform method that enables nurse educators to conduct simulation-based learning activities the same way each time.

Theme 7: Mentorship and Collaboration. The mentorship and collaboration theme emerged from the respondents' replies to Survey Question 2: "How would a nurse educator improve their competence in simulation skills?" However, only two respondents answered this survey question. Respondent 3 shared that having "mentorship with someone who is competent to proficient at simulation skills" would help nurse educators gain confidence in simulation activities. Additionally, Respondent 9 shared that "continued mentoring with practice scenarios and high-fidelity mannequins are extremely important" in ensuring a successful simulation activity. When answering Survey Question 2, Respondent 5 stated the importance of having mentorship and collaboration:

> Having a mentor has been excellent but realizing that not everyone will have that luxury. Reaching out and collaborating with your local Association for Nursing Professional Development (ANPD) for mentors or via the discussion forums on the main website is especially important in building simulation skills.

> Additionally, I am reaching out to other hospital educators for guidance. In my short time as an educator, other educators have been willing to share what works for them instead of expecting you to recreate the wheel. It is a refreshing change, and I often have reached out to others for collaboration.

Theme 8: Collaboration and Support. Most nurse educators who answered the invitation to take the survey had hospital-based experiences with collaboration and supportive simulation-based training. For example, Respondent 1 shared "I assisted with simulations developed by others," whereas Respondent 4 stated that "others have 10+ years using simulation as a learning methodology and simulation program management." Respondent 8 had multiple years of experience in simulation and had participated as a new graduate nurse in simulation-based activities: "[I] have simulated an ST elevated myocardial infarction (STEMI) for last several years as an onboarding program for new nurses." Overall, most of the nurse educators were new to simulation and had been in nursing education for less than 5 years.

Survey data found in Questions 1-7, suggested that in simulation development, nurse educators' learning needs must be considered when preparing to use simulation technology. Regarding the education needed to facilitate high-quality simulations, Respondent 9 shared that "not all have received the much-needed instruction for debriefing, and this is vital to achieving best outcomes, and fundamental education of simulation and experience are needed." Similarly, Respondent 10 asserted that "having an excellent knowledge base of what simulation is" can improve the quality of a simulation experience.

Respondents 1, 2, and 4 also shared examples of needing access and practice with simulation and technical support experts. Respondent 2 stated that "working with the sim techs and the need to practice, practice, practice" helped to improve their competence in simulation. In addition to technical or simulation support opportunities, Respondent 9 expressed that "educational programs to support and assist" help nurse educators gain competence in operating a simulation activity.

Discrepant Cases and Salient Data

I asked 10 respondents 12 open-ended questions via a qualitative survey hosted on SurveyMonkey. It became apparent that the answers to the questions became redundant and the 10 participants had similar responses. Respondents' answers were typically 1–2 sentences in length, and some did not answer the questions to the full extent. Additionally, two respondents briefly responded in ways that did not correlate to the question that was asked. In another review of the survey responses by me and my peer debriefer, we found no discrepant cases throughout the survey responses. However, Survey Questions 9 and 10 were similarly written and did not receive the intended responses; however, these responses were not deemed discrepant.

Evidence of Quality

The data were collected through anonymous surveys sent to over 200,000 members of a nursing PD association. The association's president sent out the survey link to members, and the survey responses were recorded directly in SurveyMonkey. Qualitative data analysis required me to engage in activities to ensure the credibility of the study, such as frequent entries in my research journal, peer debriefing, and persistent

review of the survey responses (see Polit & Beck, 2018). I used a doctorate-prepared nurse as an independent peer debriefer of the data, and this peer debriefer reviewed the coding and the emergent themes generated from the data analysis. The peer debriefer and I compared the findings from the codes and the themes that emerged. We reviewed the codes and themes several times to confirm that the codes were the source for each theme.

According to Polit and Beck (2018), the term transferability refers to "the extent to which the qualitative findings can be utilized by other groups or others to whom the findings might be applied" (p. 203). I achieved transferability by using surveys completed by nurse educators who work in or have worked with simulation previously. The topics were descriptive to gain access to content-rich answers from the survey respondents. Transferability in this qualitative study may benefit future studies in simulation research; for instance, it may allow other nurse educators or simulation experts to compare my findings to similar problems in simulation-based learning.

As the results for my study allowed me to explore the respondent's feelings, beliefs, and expertise in their simulation practices. I journaled each response to each survey question independently and recorded each entry in an Excel spreadsheet. All information is secured on my password-protected personal computer. My research journal containing the printed surveys and analyzed information from the generated word cloud are kept locked in a file cabinet drawer in my home office.

Outcomes Summary

The purpose of this basic qualitative study was to understand nurse educators' perceptions of the challenges related to preparing for simulation-based training

experiences for nurses and nursing students. For example, nurse educators do not have the time to prepare for simulation-based training activities and may lack the resources needed when preparing to use simulation (nurse educator, personal communication, March 27, 2020). In this study, nurse educators in a midwestern, statewide, and nationally affiliated nursing association shared the need for advanced training opportunities in simulation-based activities.

The conceptual framework for my research is the constructivist theory of learning, which avers that learning builds on existing knowledge. A learning theorist in constructivism, Piaget, developed the theory that students can construct meaning from experience using existing knowledge (as cited in Merriam et al., 2007). I used a constructivist theory to explain how nurses and nursing students produce knowledge and form meaning based on their experiences in simulation-based activities (Teachnology, n.d.).

I used constructivist theory to understand the meanings of nurses' and nursing students' experiences with simulation-based activities (aligned with Creswell, 2009). Constructivist theory allows a focus on learning centers, such as simulation laboratories, that need to be appropriately equipped, provide small-group activities, use problem-solving in clinical decision-making, and guide the facilitator who is supporting learners' needs (Berk & Meyers, 2016). A constructivist learning theorist, Vygotsky (1962/1986), claimed that knowledge leads to cognitive development from personal experiences; cognitive development can further facilitate learning through encouragement, affirmation, and role modeling (Billings & Halstead, 2009). Using constructivist theory, nursing

students can construct the necessary knowledge through patient simulation-based activities (Hallmark, 2015). This constructivist framework supported my exploration into nurse educators' perceptions of their preparedness when providing simulation-based experiences. The results helped me to establish meaning from nurse educators' views, skillsets, and perceptions of how well they prepare for patient simulation-based experiences (see Creswell, 2009).

Qualitative data gathered from anonymous surveys were reviewed and analyzed to answer two research questions:

RQ1: What are nurse educators' perceptions of their challenges in preparing to perform simulation-based training activities?

RQ2: What support do nurse educators need to help them improve their competence when providing patient simulation-based activities?

The survey responses from the 10 members of a nursing PD association yielded information to answer the research questions. Sixty percent of the survey respondents stated that simulation activities—such as realistic role-playing, simulated scenarios on a mannequin, and realistic simulated activities—were necessary resources to help student nurses or new nurses practice life-like scenarios. Another 60% of the respondents stated that debriefing activities were needed to better improve the use of simulation. Additionally, 60% of the respondents expressed that practicing with both the simulation equipment and scenarios were needed to improve their simulation skills. Furthermore, 50% of the respondents shared that the KSA, practice, knowledge, and ability were needed to be competent when providing simulation experiences.

The survey respondents also described what nurse educators need to be competent in simulation activities. Ninety percent of participants expressed the need to have the required skillset and knowledge base to successfully provide simulation experiences, and 50% shared that debriefing was an additional skill needed for competency in simulation. Eighty percent of the respondents stated that hands-on practice is needed to be competent in simulation, and 60% supported the need for more preparation time in simulation. Most survey respondents had varied simulation experiences, and thus had varied responses regarding how they utilized simulation.

In identifying simulation challenges, 60% of the survey respondents stated that time was a significant factor in simulation preparedness, and 50% shared that standardized scenarios and time were needed for a successful simulation experience. Few respondents had any certifications related to simulation. Other identified challenges included the need for more prebriefing and debriefing training, scenario writing, and PD. Expanding on these areas of concern, it is necessary for "faculty to change traditional habits and expectations" in simulation (Cherry & Jacob, 2019, p. 44).

Project Description

In my study, I collected and analyzed qualitative survey data about simulations, which revealed the need for (a) adequate preparation time for simulations, and (b) PD in simulation in the form of scenario writing, debriefing, and operating a simulator. Thus, my project will be a PD training for nurse educators. The goals of the PD plan are for nurse educators to learn how to successfully prebrief and debrief a simulation scenario based on the learning outcomes of the simulation activity.

The PD training plan will outline the purpose of the training, the goals, the learning outcomes, and the activities, complete with trainer notes and modules. I plan to provide the materials and an evaluation plan to the trainer of the PD. This 24-hour PD plan will include an easy-to-use, comprehensive guide to assist nurse educators in basic simulator technology, prebriefing, debriefing, and scenario writing.

Appendix C contains the PD project. Section 3 will address all aspects of the project, such as a project description, the project genre, a description of the project goals, an additional literature review, the project evaluation plan, and project implications.

Section 3: The Project

Introduction

The purpose of this project study was to explore the challenges that nurse educators face when preparing and providing simulation-based training to nurses and nursing students. This qualitative research included data from 10 anonymous surveys collected from nurse educators or simulation-experienced nurses. The study findings revealed that time, training, and confidence are factors that influence the preparation of simulation-based training. Other contributing factors derived from the study results include the need for hands-on practice with the simulation equipment and additional training with prebriefing and debriefing exercises. Writing scenarios is also an area of need for nurse educators to become more confident in learning how to perform a simulation exercise when incorporating a themed scenario.

The need for nurse educator training in the use of simulation is supported in the literature, with many researchers stating the challenges with training and confidence in the use of simulation (Bradshaw & Lowenstein, 2014; Huber, 2018; Sewell & Thede, 2013). Most of the survey participants stated they had little formal training in simulation use. The participants concurred that PD focused on the use of simulation would provide nurse educators the knowledge needed to effectively implement simulation-based training. The project genre approved is a PD plan that will provide 24 hours of training specific to learning simulation activities.

The purpose of the PD training I developed is to help nurse educators learn how to be more confident and competent when preparing to use simulation as a teaching

modality. The goals and learning outcomes of the PD are to provide a basic knowledge of performing simulation-based training to help nurse educators feel more confident when using simulation. The target audience for the project is nurse educators who have roles in simulation-based training. The project includes the content components, timeline, activities, trainer notes, and modules. The project also outlines a plan for implementation and an evaluation plan for a detailed 3 full days of training. I chose the project genre of PD training because it aligns with the needs described in the survey responses received.

Section 3 includes a brief project description along with the goals and learning outcomes of the PD training. A review of the literature related to PD in simulation is also included in Section 3. I explored nurse educators' challenges and developed the PD project that addressed their preparedness when providing simulation-based training.

Rationale

Nurse educators lack preparation when using simulation as a teaching modality in educating nurses and nursing students within their clinical environment; thus, the purpose of this study was to understand nurse educators' perceptions of the challenges in preparing for simulation-based training experiences for nurses and nursing students. I explored nurse educators' perceptions of the challenges they experience when preparing for simulation-based training for nurses and nursing students. I used a questionnaire survey tool (see Appendix B) to collect data, which provided me with the most information from the least number of participants. Data collected from the surveys helped capture the participants' perspectives and experiences when preparing for simulation-based training.

Most of the participants in the study expressed that more PD and time were needed for nurse educators to be confident and competent when providing simulation-based training to nurses and nursing students. Similarly, in Huber's (2018) study, experienced nurses recognized that additional training on simulation with an evaluative feedback method would help them to learn from any mistakes made. Dunker et al. (2021) acknowledged the need for "the use of simulation to train clinical nursing faculty to develop competence in their new role as educators" (p. 63). As the use of technology continues to increase, it is necessary for nurse educators to prepare for and be confident in using the available technology (Sewell & Thede, 2013). Janse van Vuuren et al. (2018) found that nurse educators in their study felt discomfited using simulation technology and lacked the motivation to learn how to use the technology for simulation.

Nurse educators may experience role-transition barriers in providing simulation education when learning to use complex simulators; thus, sufficient time is needed to prepare and provide simulation-based training (Fitzwater et al., 2021). For example, role-transition barriers may occur among nurses who are entering academia, as these nurses may lack teaching experience and could struggle with their transition into the role of nurse educator (Bagley et al., 2018). There is a need to support faculty and nurse educators when they are providing simulation-based training to new nurses and nursing students. My study participants shared a need for advanced-training opportunities in simulation-based training activities, and further shared their concerns regarding their lack of knowledge in providing effective simulation experiences. Many nursing programs do not offer any formal training in simulation, and there is no consistency in simulation

teaching strategies (Dunker et al., 2021). Consequently, the need for PD in simulation remains vital for nurse educators learning to teach using simulation.

Review of the Literature

In Section 1, I identified challenges nurse educators have when preparing and providing simulation-based training for nurses or nursing students and revealed that nurse educators do not have time to prepare for simulation training activities or lack the knowledge needed to effectively provide simulation training. The need for PD for nurse educators to advance their training skills in simulation was the most shared comment through the surveys collected for my study. The local problem is that many nurse educators must implement simulation as part of their coursework, yet these educators often feel a lack of knowledge and time permitted to learn how to perform simulations. Staykova et al. (2017) stated that simulation needs to be an integrated function for nurses and nursing students to gain confidence by practicing and demonstrating skills in simulation laboratories.

As the need for more trained nurses rises, nurse educators must expand multiple teaching strategies that include critical thinking, clinical judgment, and clinical reasoning skills (Tyo & McCurry, 2018). In Harding and Snyder (2020) nurses need to "have well-developed clinical reasoning skills" (p. ix). These teaching strategies help embed these skills into clinical simulation activities so that nurses will be better trained to care for patients.

I searched for peer-reviewed journal articles using ProQuest, CINAHL, Ovid, and Google Scholar. I conducted the search using key terms such as *simulation, professional*

development, nursing education, preparedness in simulation, and *confidence in instructor simulation*. The findings from this study and the review of the literature address the need for PD to help nurse educators perform simulation-based training successfully and confidently.

Professional Development Training

I chose PD training as my project to address the problem of nurse educators' lack of preparedness in providing simulation-based training. Simulation is an integrated tool for nursing education and allows nurse educators to teach students new skills prior to reaching the bedside for patient care. PD is necessary as a component in training healthcare professionals and is essential for nurses in maintaining and acquiring the knowledge and skills to use bedside (King et al., 2021; Nyström et al., 2017). According to Puppe and Nelson (2019), the overall purpose of PD is to train nurse educators to effectively train future nurses, thus improving patient care outcomes. There are identified gaps in practice that challenge practitioners to improve their educational practices by promoting active participation and lifelike, interactive learning through simulation (Puppe & Nelson, 2019).

Designing and preparing for simulation-based learning experiences are important skills that require time, and PD that increases nurse educators' preparedness is essential to teaching new nurses to provide safe and competent patient care. Nurse educators need to be competent in using simulation as a teaching modality when teaching nurses and nursing students. Pai et al. (2020) postulated that a clinical simulation program cultivates nursing competence by teaching nursing students the skills needed to care for patients.

Nurse educators are challenged with the need to be competent when facilitating simulations and fostering new nurses' readiness to practice skills using simulation (Ragsdale & Schuessler, 2021). Moreover, Kukko et al. (2020) stated that nursing education should emphasize these elements such as the need to arrange for suitable learning in simulation, sufficient time for preparing, and prior knowledge of the use of simulation. Additionally, faculty development on simulation could be a useful supportive strategy when providing quality skills training to healthcare professionals (Register et al., 2019).

Successful simulations depend on nurse educators' skill levels, delivery, and development of this teaching strategy (Powell et al., 2020). High-fidelity simulation is a teaching method used by nurse educators as an educational tool in clinical settings (Akhter et al., 2021). High-fidelity simulation is beneficial because it enhances critical thinking and clinical decision skills (Akhter et al., 2021). According to Akhter et al. (2021), the goal of high-fidelity simulation is for nurse educators to be trained in the use of simulation and to use this knowledge to quickly train nursing students to care for patients at the bedside.

Over the past 20 years, the growth in simulation has blossomed as a teaching strategy for nursing education (Powell et al., 2020). Specifically, the need for simulation has increased through the years because more facilities require nurses and nursing students to be prepared when entering the clinical environment. Therefore, nurse educators face a greater need for competence when providing simulation-based learning experiences. As stated previously, PD is one method to increase nurse educators'

competence. In Najjar et al.'s (2019) study on the PD training needed to develop a new teaching method using simulation, participants perceived that PD contributed to their knowledge base as novice teachers. Additionally, Dunker et al. (2021) stated that nurses who are master prepared often enter academia without formal educational training to teach. As a result, there is a need for facilities to provide faculty development training in the use of simulation. Dunker et al.'s assertion aligns with Stamps et al.'s (2021) research, which indicated that support is needed to help college-degree nurses transition from a practicing clinical position at the bedside into an academic teaching role. Stamps et al. further supported the need for ongoing faculty development in simulation to help faculty increase their knowledge to teach using simulation in the academic setting. Garner et al. (2018) also supported simulation education as a teaching strategy and highlighted the importance of both new and experienced nurse educators having confidence when providing simulation experiences.

Simulation has been recognized as an effective teaching strategy in the clinical setting and can be used effectively in both the clinical and classroom setting; however, not all faculty members have experience using simulation as a teaching strategy (Hill et al., 2018). PD has implications for nursing educators because PD may enhance faculty members' knowledge, competence, and confidence when using simulation to teach undergraduate nursing students (Morse et al., 2019). Palmer et al. (2021) discussed how, with limited clinical practice sites available, half of the allotted clinical hours may be substituted with simulation. This further raises the need for nurse educators to be well-trained in simulation through PD.

Another goal of PD is to help nurses develop professional skills and behaviors. According to Shinners et al. (2021), this professional skill development helps nurses gain further confidence and competencies when using simulation technology. McNulty (2021), Russell and Dickerson (2020), and Warren and Harper (2017) also supported the vital need for PD to meet the continuing education needs of nurses in the complex environment of nursing.

PD activities for novice nurse educators could include the quality and safety education for nurses (QSEN) framework along with evidence-based practice, teamwork, and patient-centered care activities (Dunker et al., 2021). Prebriefing exercises, writing scenarios, and debriefing are PD activities that not only support simulation competencies, but also prepare nurses for their national certification examination for simulation (Zebreski et al., 2021). Survey participants mentioned those same PD activities in my study, indicating the need for more PD in prebriefing, developing scenarios, and debriefing.

Simulation Pedagogy

Simulation as a pedagogy has been widely used in several educational settings, including nursing education (Rooney & Nyström, 2018). Pedagogy is a theoretical concept defined as a method and practice of teaching (Oxford Languages, n.d.). Pedagogy should expand from the classroom (Bradshaw & Lowenstein, 2014) and through hands-on practices, such as simulation-based activities. Najjar et al. (2019) explained simulation as a pedagogical teaching method that brings lifelike experiences into a controlled environment using various roles in simulated activities. Simulation

allows for the integration of hands-on practices and knowledge from the classroom into the laboratory environment, as explained by Bradshaw and Lowenstein (2014). Beroz et al.'s (2020) findings suggested that the use of simulation to train nursing students has increased, making it a necessary teaching strategy. Beroz et al. also shared concerns that there is an emerging lack of faculty development due to administrative and budgetary constraints; this is problematic because quality simulation experiences require dedicated and trained facilitators who implement simulation into their curricula. Additionally, Bae et al. (2019) shared that faculty training is needed to provide a structured simulation and develop a simulation debriefing protocol. Bae et al. further stated that a healthcare core competency is for nurse educators to be efficient in teaching clinical reasoning skills; nursing students who develop their clinical reasoning skills using simulation graduate nursing school as competent, qualified nurses. PD training is necessary for nursing faculty to develop their simulation skills and incorporate clinical reasoning competencies into their courses.

Nursing administrators need to understand what teaching methods are most useful in simulation-based learning activities (Paul et al., 2019). According to the Healthcare Simulation Standards of Best Practice, the standard for ongoing PD supports educator preparedness in simulation (INACSL Standards Committee et al., 2021). The simulationist needs to stay current with the newest and latest technology and knowledge when providing high-quality simulation-based training (INACSL Standards Committee et al., 2021). By definition, a simulationist is one who designs, implements, and delivers simulation-based activities (Kardong-Edgren, 2013; Morse et al., 2019). Weeks et al.

(2019) discussed the pedagogy of simulation as a learning strategy that is at the forefront of change to meet critical educational requirements, demands, and challenges. Therefore, there is a worldwide need for nurse educators to create competent nurses (Lillekroken, 2019).

Project Description

Based on my study results, I developed a 24-hour PD training for nurse educators to improve their understanding and confidence when performing simulation activities. Each day of the PD training will include an evaluation of the learning activities gained from the training participants. By the end of the 24-hour series, each nurse educator will be competent in providing a basic simulation for nursing students, new nurse graduates, and fellow nurses. As a courtesy to the participants, a follow-up email will be sent by the facilitator monthly for the first 3 months following the PD training. The follow-up email will invite any nurse educator to share ideas or trepidations regarding their simulation-based learning (Najjar et al., 2019).

Needed Resources

I collaborated with the School of Nursing Administration to identify the resources that will be available to me when I present the PD training. The School of Nursing Administration has agreed to the voluntary use of a simulation room located in the nursing laboratory and an additional classroom with a projector and whiteboard. I will make copies of any printable materials the participants may need, such as paper evaluations and printed PowerPoint handouts for notetaking. I will supply pens and pencils for taking notes and for completing the evaluations. I will also supply both

electronic evaluations and paper evaluations. Each participant will be encouraged and recommended to bring a laptop computer to use during the training, as they may feel more comfortable submitting the training evaluations electronically.

Existing Supports

My current employer, a school of nursing, has agreed to host the 3-day PD simulation training series at no cost to me or any participant. I will recruit participants for the voluntary 3-day simulation training. Additionally, my employer has graciously agreed to allow me to utilize their mannequins for the simulation training activity.

Potential Barriers and Potential Solutions to Barriers

There is always a probability that I could have low participation due to nurse educators' schedules. For this potential barrier, I will set an alternate date for attendance or record the training for viewing at a time that would best fit each participant's schedule. Other potential barriers are that the simulator may not be working or I may have trouble getting a classroom. As a solution to these problems, I will ensure that the equipment is in working order prior to use and have an information technology person on standby to assist with any technicalities. I will also reserve the laboratory and the classroom ahead of the event and will test the equipment to be used prior to the training activities.

Project Implementation

There are three schools of nursing in the local area, and I will invite each nurse educator to the PD training. I plan to email my invitations to recruit participants approximately 2 months in advance so that nurse educators can plan their schedules accordingly. Most educators have allotted time off between courses. Next, I will email

participants three potential dates to choose from and will choose the date that would best fit most participants' schedules.

As an experienced educator myself, I know that the best time for nurse educators to participate in PD would be during a break from courses, such as the beginning or end of summer break prior to the next trimester or semester. I will collaborate with nursing administration to find the best dates that do not interfere with courses, meetings, or other workshops they may have scheduled. Other times a workshop could be included is over a holiday break.

Roles and Responsibilities

My professional role as a nurse educator, revolves around the use of simulation as a teaching strategy in academia. I use simulation at least once per week, and I assist other nurse educators in becoming more comfortable when providing simulation-based training. I am, by education and trade, a registered nurse, and a nurse educator. I have been working and training in simulation for the past 8 years. I participate in PD related to simulation training at least two or three times per year to build my skills in simulation, learn new techniques, and stay abreast of the most current technology and updates. I am also a member of a PD organization that has many free webinars and resources related to simulation, which helps me to keep my skills current. I believe that nurses need to practice simulation consistently and familiarize themselves with the equipment to become more comfortable. As a nurse, I have learned the value of making mistakes and using those mistakes to make the necessary changes in education for the safety of patients.

Simulation is a valuable teaching resource to utilize in educating new nurses in a safe, nonthreatening environment.

The PD participants are responsible for actively participating in the session and preparing to ask questions as needed. Participants are also responsible for responding and answering the evaluations openly and honestly. Communication is necessary when working with other nurse educators and when engaging in simulation exercises.

Project Evaluation Plan

Formative Evaluation Justification

I will receive feedback to improve the project from nurse educators who did not participate in the study and who will not participate in the training. These nurse educators will complete formative evaluation questions provided through email prior to the project's implementation. The evaluation form will ask the nurse educators what they would add, remove, or change in the PD. Additionally, using the four questions from Kaplan Solutions (n.d.) of (a) how PD activities can increase nurse educators' understanding of simulation in nursing education, (b) how simulation can increase nurse educator confidence levels, (c) how the PD training could help to make planning simulation activities easier, and (d) how this PD can improve the overall efficiency of performing simulation-based training. By asking nurse educators with expertise in nursing academia and simulation experiences to evaluate the PD project, I can gain feedback on ways to improve and revise the PD. From this feedback, I can identify the areas to improve upon and make informed decisions on what changes to make.

My PD project evaluation goals are for three experienced nurse educators to formatively evaluate the project to provide feedback on what can be improved, what needs to be revised, and what needs to be removed or added. I provided an instrument for them to complete and email back to me. Professional feedback should be meaningful and respectful and clearly identify areas for improvement. Additionally, I plan to have ongoing communication from the selected nurse educator reviewers to improve the PD training.

Key Stakeholders

The key stakeholders in my project are nursing administrators from a local school of nursing, nursing department chairs, and simulation coordinators. Nursing faculty members and hospital educators are also resourceful stakeholders when it comes to providing valuable feedback to improve the PD. I also included the nursing PD association as a key stakeholder because the association president distributed my anonymous surveys and my study results to over 200,000 members.

Project Implications

This project will help to change the way nurse educators approach simulation-based learning. As a change agent, with Christian values, and as a nurse educator, when teaching nursing students, it is best to teach them using creative hands-on and life-like experiences using simulation. A small positive social change that may result from this PD project is that more nurse educators may overcome their fear of using simulation-based training and will thus be better prepared to successfully perform simulations for others. Furthermore, this PD training will give nurse educators the confidence to better train

nursing students while using simulation as a teaching strategy. Simulation provides hands-on learning and will help new nurses provide quality care to their patients.

Local Stakeholders

The PD project study has the potential to increase simulation knowledge and confidence among nurse educators, nurses, administrators, and students at the local level. The implementation of the 3-day PD will increase nurse educators' ability to use simulation as a teaching strategy. Additionally, the PD training will help administrators to engage in more effective use of simulation equipment to provide quality simulations to students. Simulation is a hands-on teaching practice that allows students to practice skills and scenarios on a life-like mannequin in a laboratory environment. Simulation helps nurses gain confidence before practicing in the clinical setting; therefore, nurse educators need to be confident and comfortable with providing simulation experiences to their students. In turn, students can safely provide care to patients in the hospital and clinical settings.

Conclusion

In Section 3 I described the PD project, the rationale for the project, a review of the literature, the project description, a project evaluation plan, and implications for the project. In this section, I included how the 3-day PD training will help nurse educators build their confidence levels and become more competent when using simulation as a teaching strategy.

Section 4: Reflections and Conclusions

The purpose of this project study was to understand nurse educators' perceptions of the challenges they confront when preparing for simulation-based training experiences for nurses or nursing students. The findings highlight a need for additional PD training, and I therefore developed a 3-day PD project focused on basic simulation skills. The PD training will include ongoing team-building exercises in prebriefing, simulation, scenarios, and debriefing. In this final section, I describe the project's strengths and limitations. Additionally, in this section, I reflect on the growth of learning to become a scholar. I will conclude this final section with recommendations for future simulations as a nurse educator.

Project Strengths and Limitations

Strengths

Based on the results of my study, I developed a 3-day PD training that simplifies the basic simulation skills of prebriefing, scenario writing, simulation, and debriefing. This project has two primary strengths. First, the PD training will help prepare nurse educators to be more confident and comfortable with using simulation as a teaching strategy. Second, this project will foster collaboration among nurse educators and enable educators to demonstrate their creativity through interactive simulation exercises. The PD training will be open to members of the PD association, and participants from the PD session will continue to support nurses by having the ability to collaborate through the association.

Limitations

This study and PD project have several limitations. First, the study results upon which the project was developed were based on only 10 completed surveys. Although the PD association initially emailed over 200,000 members, I only received 10 completed survey questionnaires from participants who met the criteria. However, feedback from the formative evaluation could lead the training to be more effective, and changes could be implemented for its efficiency. Second, at the beginning of the data collection, COVID-19 closed doors to two of my initial survey sites, which prompted me to resort to online survey questionnaire data collection. Initially, I planned to conduct face-to-face interviews to build rapport and observe participants' reactions. Last, I did not examine the limitations that nurse educators face regarding simulation training. For instance, advanced simulation training can be very costly, which can be a barrier. However, the PD training could eventually be adapted to meet future participants' needs, as the challenges nurse educators encounter may change.

Recommendations for Alternative Approaches

The local problem addressed was nurse educators not having the time to prepare for simulation-based training activities and lacking the resources needed to prepare to use simulation. I addressed this problem in my qualitative study by surveying nurse educators to determine what they need to become more competent in using simulation as a teaching strategy. Using the survey data, I developed a PD project to help build nurse educators' confidence when using simulation.

An alternative way to study the problem would have been to conduct a comparison study of nursing students' and nurse educators' perceptions on the use of simulation. This type of study may have garnered more participation and provided a different viewpoint on the use of simulation and the challenges nurse educators experience when actively involved in simulation exercises. Another alternative solution could have been a policy recommendation paper that includes a detailed background and analysis of the local problem. A policy paper focuses on issues that require a policy recommendation (Scotten, 2011). Last, to increase participation, a similar study could be conducted using other nursing associations.

Scholarship, Project Development, and Leadership and Change

Scholarship

The definition of scholarship is a formal study or research of a subject (Britannica, n.d.). As a scholar and nurse educator, I used Boyer's (1990) four domains of scholarship in my research: (a) discovery, (b) integration, (c) application, and (d) teaching (as cited in Billings & Halstead, 2009, p. 489). Specifically, I conducted a research study and developed a project related to the study findings. This research study includes extensive literature reviews, information on advanced technology, and recommendations for how to support nurse educators' use of simulation. When completing my project study, I used Boyer's example for integrating Boyer's model into an interactive PD training by applying "the special competencies and skills that are an integral part of the scholarly endeavor of teaching" (as cited in Billings & Halstead, 2009, p. 10).

Project Development

As a project developer, I aligned the ideas that emerged from my literature review from the surveys to reach the project's goals. The results of my study revealed the need for PD, which I developed. I learned how to set goals, conduct research, and determine the requirements of local stakeholders (Spacey, 2018). Using Spacey's (2018) 11 stages of project development guidelines, I learned to initiate, plan, and research the requirements necessary to complete PD training. I also learned how to implement the project in the future for others to use. As a project developer, I was able to create a team approach and a shared, governed decision-making process when using simulation as a teaching strategy. Shared governance is a team structure to help with decision-making processes among nurses and leadership (McKnight & Moore, 2022).

Leadership and Change

I have had the pleasure of serving my community, serving the Lord, and serving my employer at the local and state levels. I have served on different committees in academia to learn about curriculum, organizational vision, and mission. Additionally, I previously served as a board member for a statewide educational organization and have been an active member serving on several nursing and professional development associations. It has been my pleasure to learn about the different areas of education. My personal growth as a scholar has given me confidence when speaking to other professionals, serving on various committees, and serving as a leader on various projects. I will continue to improve my leadership skills and challenge myself to take on other tasks that lead me into more professional roles.

Reflections

Reflections on Self as a Scholar

I began my journey with Walden University in the master of science in nursing program, and I completed that degree in 2013. I then decided to pursue an EdD in higher education adult learning through Walden because I felt compelled to continue studying adult education. Throughout this journey, I have learned many things about education, curriculum, assessments, and evaluation. Most of all, it has taught me more about self-discipline than anything else in my life. I found the 2 years of coursework only minimally prepared me to write a project study, as the work is long, tedious, sacrificial, and daunting. Self-discipline has taught me to keep going little by little. I have also learned that if I kept moving, I was at least pushing forward. I have revised and revised and revised, but it has only prepared me to ask the right questions, look for solutions, and analyze what I have found. I have a joyous heart and look forward to how this degree can benefit me as a future scholar.

Reflections on Self as a Practitioner

As a nurse educator, I have experienced many PD avenues, including online learning modules, online seminars, and in-person activities. I have developed many PowerPoint projects and lectures, primarily using materials from textbooks, notes, and online resources. Developing the actual PowerPoint for the PD project was not problematic for me; instead, the challenge was developing the entire PD package from the information I collected. The PD project allowed me to process an area of need and address this need through the development of a basic simulation 3-day workshop training

that may help nurse educators gain confidence when using simulation. Additionally, through the PD prebriefing, scenario writing, and debriefing experiences, PD participants will have the opportunity to practice in small groups. The survey analysis revealed common elements among participants: the need for PD training. This project study helped me to develop possible solutions to help nurse educators improve their simulation skills.

Reflections on Self a Project Developer

As a project developer, I have completed a few work-related projects in the past. However, I had more guidance during this process and more guidelines to follow. Developing a project from the research and data I collected was a tedious process, difficult to start from the bottom and work my way up. Nonetheless, I feel confident in knowing that I have completed the project myself and contributed to helping others reach their confidence goals.

Reflection on the Importance of the Work

Nursing and education were both career choices for me. I never imagined becoming a nurse educator; however, I have always been very passionate about nursing and education with a desire to teach future nurses. Nursing students are adult learners, and this is the reason why I chose to complete my EdD in Higher Education Adult Learning. My passion is to guide other educators' use of simulation and help them build their confidence using this teaching strategy. There is a growing need for affordable PD in simulation to help nurse educators become competent and comfortable with the use of simulation. Billings and Halstead's (2009) findings echoed the challenges and barriers

reflected in the study findings, notably faculty preparation of time needed for simulation, performance anxiety for the students and faculty, and technology literacy. Simulation is a learned experience and takes practice. The PD training that I developed will help nurse educators develop the skills they need to perform basic simulation activities. Furthermore, the training will give them the confidence to be able to teach nursing students using simulation. The PD workshop will offer (a) a prebriefing experience that will help nurse educators to learn what information is needed for a successful simulation, (b) training on how to write quality scenarios, and (c) a debriefing experience, which is important because debriefing is where the most learning occurs from the simulation experience. Therefore, the PD project offers multiple areas of learning to help educators build knowledge, skills, practice, and opportunities.

Implications, Applications, and Directions for Future Research

The PD project has the potential to contribute to further training for educators based on future needs in simulation, and this begins will sharing this PD project with nursing administrators, nurse educators, nursing directors, and colleagues. Implementing the PD project for nurse educators will help support the increased use of simulation in nursing academia. This is a step toward positive social change in self-confidence for nurse educators who use simulation, as increased confidence among educators will lead to the development of new student nurses who can perform better at the bedside. It would also aid in bedside readiness, meaning that organizations could quickly bring better-trained, new graduate nurses to the forefront in caring for patients. Better patient care leads to better outcomes for patients and healthcare.

In the successful implementation of my project, I would encourage other nurse educators as part of their personal PD in nursing practice to serve and participate on nursing associations. There is still a need to develop new simulation scenarios, objectives, and outcomes; thus, I encourage active participation in a PD organization as part of a continued supportive learning team that focuses on continued education and PD as a collaborative effort.

Conclusion

The purpose of this qualitative study was to understand nurse educators' perceptions of the challenges when preparing for simulation-based training experiences for nurses and nursing students. In Section 4, I focused my attention on the studies and project's strengths and limitations. I also recommended alternative approaches to study the local problem and focused on how scholarship, project development, and leadership and change were specific to my research. Finally, I reflected on the importance of the work I completed, and discussed the study implications, applications, and directions for future research. As I conclude my study, I encourage nursing members to delve into the problematic areas that arise in nursing academia and at the bedside. Nurses are nurturers who, when learning to focus on the care of patients, learn to collaborate, problem-solve, and teach others. Nurses in academia need to be confident in supporting future nurses with the simulation skills needed to care for others. As a nurse, it is rewarding to be part of the larger solution and make a positive social change in the profession of nursing.

References

Akhter, Z., Malik, G., & Plummer, V. (2021). Nurse educator knowledge, attitude, and skills towards using high-fidelity simulation: A study in the vocational education sector. *Nurse Education in Practice*, *53*, 103048. https://doi.org/10.1016/j.nepr.2021.103048

Aldridge, M. D. (2016). How can nurse educators perform patient simulation efficiently? *Teaching and Learning in Nursing*, *11*(1), 8–14. https://doi.org/10.1016/j.teln.2015.09.001

Allvin, R., Berndtzon, M., Carlzon, L., Edelbring, S., Hult, H., Hultin, M., Karlgren, K., Masiello, I., Södersved Källestedt, M.-L., & Tamás, É. (2017). Confident but not theoretically grounded-experienced simulation educators' perceptions of their own professional development. *Advances in Medical Education and Practice*, *8*, 99–108. https://doi.org/10.2147/AMEP.S123517

Babbie, E. (2017). *The basics of social research* (7th ed.). Cengage Learning.

Bae, J., Lee, J., Jang, Y., & Lee, Y. (2019). Development of simulation education debriefing protocol with faculty guide for enhancement clinical reasoning. *BMC Medical Education*, *19*, 197. https://doi.org/10.1186/s12909-019-1633-8

Bagley, K., Hoppe, L., Brenner, G. H., Crawford, M., & Weir, M. (2018). Transition to nursing faculty: Exploring the barriers. *Teaching and Learning in Nursing*, *13*(4), 263–267. https://doi.org/10.1016/j.teln.2018.03.009

Basak, T., Unver, V., Moss, J., Watts, P., & Gaioso, V. (2016). Beginning and advanced students' perceptions of the use of low-and high-fidelity mannequins in nursing

simulation. *Nurse Education Today*, *36*, 37–43. https://doi.org/10.1016/j.nedt.2015.07.020

Berk, L. E., & Meyers, A. B. (2016). *Infants, children, and adolescents* (8th ed.). Pearson Education.

Beroz, S., Schneidereith, T., Farina, C. L., Daniels, A., Dawson, L., Watties-Daniels, D., & Sullivan, N. (2020). A statewide curriculum model for teaching simulation education leaders. *Nurse Educator*, *45*(1), 56–60. https://doi.org/10.1097/NNE.0000000000000661

Billings, D. M., & Halstead, J. A. (2009). *Teaching in nursing: A guide for faculty* (3rd ed.). Saunders-Elsevier.

Bogossian, F. E., Cooper, S. J., Kelly, M., Levett-Jones, T., McKenna, L., Slark, J., & Seaton, P. (2017). Best practice in clinical simulation education-are we there yet? A cross-sectional survey of simulation in Australian and New Zealand pre-registration nursing education. *Collegian*, *25*(3), 327–334. https://doi.org/10.1016/j.colegn.2017.09.003

Bradshaw, M. J., & Lowenstein, A. J. (2014). *Innovative teaching strategies and related health professions* (6th ed.). Jones & Bartlett Learning.

Britannica. (n.d.). *Scholarship*. In *Britannica.com dictionary*. Retrieved November 4, 2022, from https://www.britannica.com/dictionary/scholarship

Burns, N., & Grove, S. K. (2009). *The practice of nursing research: Appraisal, synthesis, and generation of evidence* (6th ed.). Saunders.

Carper, B. A. (1978). Fundamental patterns of knowing in nursing. *Advances in Nursing*

Science, *1*(1), 13–23. https://doi.org/10.1097/00012272-197810000-00004

Carson, P. P., & Harder, N. (2016). Simulation use within the classroom: Recommendations from the literature. *Clinical Simulation in Nursing*, *12*(10), 429–437. https://doi.org/10.1016/j.ecns.2016.03.009

Cherry, B., & Jacob, S. R. (2019). *Contemporary nursing: Issues, trends, & management* (8th ed.). Elsevier.

Cohen, D., & Crabtree, B. (2006). *Evaluative criteria*. Robert Wood Johnson Foundation Qualitative Research Guidelines Project. http://www.qualres.org/HomeEval-3664.html

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed-methods approaches* (3rd ed.). Sage.

Dunker, K. S., Duprey, M. D., & Ross, J. G. (2021). Simulation strategies used in the transition from expert clinician to novice educator. *National Education Perspectives*, *42*(1), 63–64. https://doi.org/10.1097/01.nep.0000000000000531

Faz, R., Van Sell, S., & Sheriff, S. (2014). Simulation teaching: Developing instructor confidence. *International Journal of Nursing*, *1*(2), 49–63. https://doi.org/10.15640/ijn.v1n2a5

Fitzwater, J., McNeill, J., Monsivais, D., & Nunez, F. (2021). Using simulation to facilitate transition to the nurse educator role: An integrative review. *Nurse Education*, *46*(5), 322–326. https://doi.org/10.1097/NNE.0000000000000961

Garbuio, D. C., Oliveira-Kumakura, A. R. S., Kameo, S. Y., Melo, E. S., Dalri, M. C. B., & de Carvalho, E. C. (2016). Clinical simulation in nursing: Experience report on

the construction of a scenario. *Journal of Nursing*, *10*(8), 3149–3155.

Garner, S. L., Killingsworth, E., Bradshaw, M., Raj, L., Johnson, S. R., Abijah, S. P., Parimale, S., & Victor, S. (2018). The impact of simulation education on self-efficacy towards teaching for nurse educators. *International Nursing Review*, *65*(4), 586–595. https://doi.org/10.1111/inr.12455

George Washington University School of Nursing. (n.d.). *Developing a simulation team: Challenges, benefits, & opportunities.* Retrieved November 4, 2022, from Developing a Simulation Team: Challenges, Benefits ... - [PDF Document] (fdocuments.net)

Hallmark, B. F. (2015). Faculty development in simulation education. *Nursing Clinics of North America*, *50*(2), 389–397. https://doi.org/10.1016/j.cnur.2015.03.002

Harding, M., & Snyder, J. S. (2020). *Clinical reasoning cases in nursing* (7th ed.). Elsevier.

Hill, J. M., Woodley, L., & Goodwin, M. (2018). Simulation to prepare graduate nursing students for clinical faculty role. *National Education Perspectives*, *39*(5), 319–321. https://doi.org/10.1097/01.NEP.0000000000000304

Hood, L. J. (2018). *Leddy & Pepper's professional nursing* (9th ed.). Wolters Kluwer.

Huber, D. L. (2018). *Leadership and nursing care management* (6th ed.). Elsevier.

Hunt, C. W., Curtis, A. M., & Gore, T. (2015). Using simulation to promote professional development of clinical instructors. *Journal of Nursing Education*, *54*(8), 468–471. https://doi.org/10.3928/01484834-20150717-09

INACSL Standards Committee, Hallmark, B., Brown, B., Peterson, D. T., Fey, M.,

Decker, S., Wells-Beede, E., Britt, T., Hardie, L., Shum, C., Arantes, H. P., Charnetski, M., & Morse, C. (2021). Healthcare simulation standards of best practice professional development. *Clinical Simulation in Nursing*, *58*, 5–8. https://doi.org/10.1016/j.ecns.2021.08.007

International Nursing Association for Clinical Simulation and Learning Standards Committee. (2016). INACSL standards of best practice: Simulation: Simulation glossary. *Clinical Simulation in Nursing*, *12*(Suppl.), S39–S47. https://doi.org/10.1016/j.ecns.2016.09.012

Janse van Vuuren, V., Seekoe, E., & Goon, D. T. (2018). The perceptions of nurse educators regarding the use of high-fidelity simulation in nursing education. *Africa Journal of Nursing & Midwifery*, *20*(1), 1–20. https://unisapressjournals.co.za/index.php/AJNM/article/view/1685

Jeffries, P. R. (Ed.). (2014). *Clinical simulations in nursing education: Advanced concepts, trends, and opportunities*. Wolters Kluwer Health.

Jeffries, P. R., Dreifuerst, K. T., Kardong-Edgren, S., & Hayden, J. (2015). Faculty development when initiating simulation programs: Lessons learned from the national simulation study. *Journal of Nursing Regulation*, *5*(4), 17–23. https://doi.org/10.1016/S2155-8256(15)30037-5

Kaplan Solutions. (n.d.). *5 benefits of professional development*. Retrieved November 4, 2022, from https://kaplansolutions.com/article/5-benefits-of-professional-development

Kardong-Edgren, S. (2013). Is simulationist a word? *Clinical Simulation in Nursing*,

9(12), Article e561. https://doi.org/10.1016/j.ecns.2013.10.001

King, R., Taylor, B., Talpur, A., Jackson, C., Manley, K., Ashby, N., Tod, A., Ryan, T., Wood, E., Senek, M., & Robertson, S. (2021). Factors that optimize the impact of continuing professional development in nursing: A rapid evidence review. *Nurse Education Today, 98,* Article 104652. https://doi.org/10.1016/j.nedt.2020.104652

Kukko, P., Silén-Lipponen, M., & Saaranen, T. (2020). Health care students' perceptions about learning of affective interpersonal communication competence in interprofessional simulations. *Nurse Education Today*, *94*, Article 104565. https://doi.org/10.1016/j.nedt.2020.104565

Lafond, C., & Blood, A. (2016). Targeted simulation instructor course for nursing professional development specialists. *Journal for Nurses in Professional Development*, *32*(6), 284–293. https://doi.org/10.1097/NND.0000000000000306

Lambert, M. (2012). *A beginner's guide to doing your education research project.* Sage.

Landeen, J., Pierazzo, J., Akhtar-Danesh, N., Baxter, P., van Eijk, S., & Evers, C. (2015). Exploring student and faculty perceptions of clinical simulation: A Q-sort study. *Journal of Nursing Education*, *54*(9), 485–491. https://doi.org/10.3928/01484834-20150814-02

Lane, A. J., & Mitchell, S. G. (2013). Using a train-the-trainer model to prepare educators for simulation instruction. *Journal of Continuing Education in Nursing*, *44*(7), 313–317. https://doi.org/10.3928/00220124-20130515-33

Lestander, O., Lehto, N., & Engström, A. (2016). Nursing students' perceptions of learning after high-fidelity simulation: Effects of a three-step post-simulation

reflection model. *Nurse Education Today*, *40*, 219–224. https://doi.org/10.1016/j.nedt.2016.03.011

Lillekroken, D. (2019). A privilege but also a challenge. Nurse educators' perceptions about teaching fundamental care in a simulated learning environment: A qualitative study. *Journal of Clinical Nursing*, *29*(11–12), 2011–2022. https://doi.org/10.1111/jocn.15177

Lopreiato, J. O. (Ed). (2016). *Healthcare simulation dictionary* (AHRQ Publication No. 16[17]-0043). Agency for Healthcare Research and Quality. https://www.ahrq.gov/sites/default/files/publications/files/sim-dictionary.pdf

Luetke, R. L. (2016). *Qualitative case study research to create a nursing discipline practice theory to guide simulation in nursing education* (Publication No. 10107656) [Doctoral dissertation, Northcentral University]. ProQuest Dissertations and Theses Global.

Magee, K. M. (2016). *Faculty perceptions of confidence when adopting high fidelity simulation for undergraduate nursing education: A phenomenological analysis* [Doctoral dissertation, Mercer University]. URSA. http://hdl.handle.net/10898/11404

McKnight, H., & Moore, S. M. (2022). Nursing shared governance. In *StatPearls.* https://www.ncbi.nlm.nih.gov/books/NBK549862/

McNulty, D. S. (2021). Creating a model for mindfulness in nursing professional development using concept analysis. *Journal for Nurses in Professional Development*, *37*(4), 200–205. https://doi.org/10.1097/NND.0000000000000725

Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation.* Jossey-Bass.

Merriam, S. B., Caffarella, R. S., & Baumgartner, L. M. (2007). *Learning in adulthood: A comprehensive guide* (3rd ed.). Jossey-Bass.

Morse, C. J., Fey, M., Kardong-Edgren, S., Mullen, A., Barlow, M., & Barwick, S. (2019). The changing landscape of simulation-based education: A review of the use of simulation in nursing education, professional development, and beyond. *American Journal of Nursing*, *119*(8), 42–48. https://doi.org/10.1097/01.naj.0000577436.23986.81

Moyer, S. M. (2016). Large group simulation: Using combined teaching strategies to connect classroom and clinical learning. *Teaching and Learning in Nursing*, *11*(2), 67–73. https://doi.org/10.1016/j.teln.2016.01.002

Najjar, Z., Zidan, W., & Da'eem, R. (2019, July 4–6). *Pedagogical simulation as a tool for professional development among interns in teaching* [Conference presentation]. The International Conference on Information Communication Technologies in Education, Chania, Crete, Greece.

Nehring, W., & Lashley, F. (2009). Nursing simulation: A review of the past 40 years. *Simulation & Gaming*, *40*(4), 528–552. https://doi.org/10.1177/1046878109332282

Nestel, D., Bearman, M., Brooks, P., Campher, D., Freeman, K., Greenhill, J., Jolly, B., Rogers, L., Rudd, C., Sprick, C., Sutton, B., Harlim, J., & Watson, M. (2016). A national training program for simulation educators and technicians: Evaluation

strategy and outcomes. *BMC Medical Education*, *16*, Article 25. https://doi.org/10.1186/s12909-016-0548-x

Omer, T. (2016). *Nursing students' perceptions of satisfaction and self-confidence with clinical simulation experience* (EJ1092418). ERIC. https://files.eric.ed.gov/fulltext/EJ1092418.pdf

Oxford Languages. (n.d.). *About us*. Retrieved November 4, 2022, from https://languages.oup.com/about-us/

Pai, H. C., Huang, Y. L., Cheng, H. H., Yen, W. J., Lu, Y. C. (2020). Modeling the relationship between nursing competence and professional socialization of novice nursing students using a latent growth curve analysis. *Nurse Education in Practice, 49,* Article 102916. https://doi.org/10.1016/j.nepr.2020.102916

Palaganas, J. C., Maxworthy, J. C., Epps, C. A., & Mancini, M. E. (Eds.). (2015). *Defining excellence in simulation programs*. Wolters Kluwer.

Palmer, J. L., McLaughlin, D. E., & Hankamer, B. A. (2021). A simulation boot camp for future nurse educators. *Nurse Educator*, *46*(3), 134–135. https://doi.org/10.1097/NNE.0000000000000894

Park, H., & Yu, S. (2018). Policy issues in simulation-based nursing education and technology development. *Health Policy and Technology*, *7*(3), 318–321. https://doi.org/10.1016/j.hlpt.2018.06.003

Paul, R., & Elder, L. (2019). *A guide for educators to critical thinking competency standards: Standards, principles, performance indicators, and outcomes with a critical thinking master rubric*. Rowman & Littlefield.

Peterson, D. T., Watts, P. I., Epps, C. A., & White, M. L. (2017). Simulation faculty development. *Simulation in Healthcare, 12*(4), 254–259. https://doi.org/10.1097/SIH.0000000000000225

Polit, D. F., & Beck, C. T. (2018). *Essentials of nursing research: Appraising evidence for nursing practice* (9th ed.). Wolters Kluwer.

Powell, M. E., Scrooby, B., & van Graan, A. (2020). Nurse educators' use and experiences with high-fidelity simulation in nursing programmes at a South African private education institution. *International Journal of Africa Nursing Sciences, 13,* Article 100227. https://doi.org/10.1016/j.ijans.2020.100227

Puppe, J. M., & Nelson, D. M. (2019). How to flip the classroom to improve learner engagement. *Journal for Nurses in Professional Development*, *35*(4), 196–203. https://doi.org/10.1097/NND.0000000000000537

QSR International Pty Ltd. (2020, March). *NVivo* [Computer software]. https://www.qsrinternational.com/nvivo-qualitative-data-analysis-software/home

Ragsdale, M., & Schuessler, J. B. (2021). An integrative review of simulation, senior practicum and readiness for practice. *Nurse Education in Practice*, *55*, Article 103087. https://doi.org/10.1016/j.nepr.2021.103087

Ravitch, S. M., & Carl, N. M. (2016). *Qualitative research: Bridging the conceptual, theoretical, and methodological.* Sage.

Register, S., Peterson, D. T., Swatzell, & White, M. L. (2019). Effect of interprofessional (IP) faculty development on perceptions of IP collaboration and on IP behaviors. *Journal of Interprofessional Care*, *33*(6), 809–811.

https://doi.org/10.1080/13561820.2019.1593115

Roh, Y. S., Kim, M. K., & Tangkawanich, T. (2016). Survey of outcomes in a faculty development program on simulation pedagogy. *Nursing & Health Sciences, 18*(2), 210–215. https://doi.org/10.1111/nhs.12254

Rooney, D., & Nyström, S. (2018). Simulation: A complex pedagogical space. Australasian Journal of Educational Technology, 34(6). https://doi.org/10.14742/ajet.4470

Rubin, H. J., & Rubin, I. S. (2012). *Qualitative interviewing: The art of hearing data* (3rd ed.). Sage.

Russell, J. A., & Dickerson, P. S. (2021). Professional development associate: Resource update. *Journal for Nurses in Professional Development*, *37*(2), 82–86. https://doi.org/10.1097/NND.0000000000000658

Saldaña, J. (2016). *The coding manual for qualitative researchers* (3rd ed.). Sage.

Scotten, A. G. (2011). *Writing effective policy papers: Translating academic knowledge into policy solutions* [PowerPoint slides]. The University of Arizona Center for Middle Eastern Studies. https://cmes.arizona.edu/sites/cmes.arizona.edu/files/Effective%20Policy%20Paper%20Writing.pdf

Sewell, J., & Thede, L. (2013). *Informatics and nursing: Opportunities and challenges* (4th ed.). Lippincott Williams & Wilkins.

Sharoff, L. (2015). Simulation: Pre-briefing preparation, clinical judgment, and reflection. What is the connection? *Journal of Contemporary Medicine, 5*(2), 88–

101.

Shinners, J., Africa, L., & Meyer, D. (2021). The nursing professional development role in fostering professional development, leadership, and academic progression for new graduate registered nurses. *Journal for Nurses in Professional Development*, *37*(5), 260–267. https://doi.org/10.1097/NND.0000000000000770

Simes, T., Roy, S., O'Neill, B., Ryan, C., Lapkin, S., & Curtis, E. (2017). Moving nurse educators towards transcendence in simulation comfort. *Nurse Education in Practice*, *28*, 218–223. https://doi.org/10.1016/j.nepr.2017.10.024

Sittner, B. J., Aebersold, M. L., Paige, J. B., Graham, L. M., Schram, A. P., Decker, S. I., & Lioce, L. (2015). INACSL Standards of best practice for simulation: Past, present, and future. *Nursing Education Perspectives*, *36*(5), 294–298. https://doi.org/10.5480/15-1670

Spacey, J. (2018, August 12). *11 stages of project development.* Simplicable. https://simplicable.com/new/project-development

Stamps, A., Cockerell, K., & Opton, L. (2021). A modern take on facilitating transition into the academic nurse educator role. *Teaching and Learning in Nursing*, *16*(1), 92–94. https://doi.org/10.1016/j.teln.2020.04.002

Staykova, M. P., Stewart, D. V., & Staykov, D. I. (2017). Back to the basics and beyond: Comparing traditional and innovative strategies for teaching in nursing skills laboratories. *Teaching and Learning in Nursing*, *12*(1), 152–157. https://doi.org/10.1016/j.teln.2016.12.001

Sundler, A. J., Pettersson, A., & Berglund, M. (2015). Undergraduate nursing students'

experiences when examining nursing skills in clinical simulation laboratories with high-fidelity patient simulators: A phenomenology research study. *Nurse Education Today*, *35*(12), 1257–1261. https://doi.org/10.1016/j.nedt.2015.04.008

Suplee, P. D., Gardner, M., & Jerome-D'Emilia, B. (2014). Nursing faculty preparedness for clinical teaching. *Journal of Nursing Education*, *53*(3), S38–S41. https://doi.org/10.3928/01484834-20140217-03

SurveyMonkey. (n.d.). *Homepage*. Retrieved November 4, 2022, from www.surveymonkey.com

Teachnology. (n.d.). *Piaget's theory of constructivism.* Retrieved November 4, 2022, from https://www.teach-nology.com/currenttrends/constructivism/piaget/

Tyo, M. B., & McCurry, M. K. (2018). An integrative review of clinical reasoning teaching strategies and outcome evaluation in nursing education. *Nursing Education Perspectives*, *40*(1), 11–17. https://doi.org/10.1097/01.NEP.0000000000000375

Vygotsky, L. (1986). *Thought and language*. MIT Press. (Original work published 1962)

Warren, J. I., & Harper, M. G. (2017). Transforming roles of nursing professional development practitioners. *Journal for Nurses in Professional Development*, *33*(1), 2–12. https://doi.org/10.1097/nnd.0000000000000320

Weeks, K. W., Coben, D., O'Neill, D., Jones, A., Weeks, A., Brown, M., & Pontin, D. (2019). Developing and integrating nursing competence through authentic technology-enhanced clinical simulation education: Pedagogies for reconceptualizing the theory-practice gap. *Nurse Education in Practice*, *37*, 29–

38. https://doi.org/10.1016/j.nepr.2019.04.010

Willhaus, J. (2016). Simulation basics: How to conduct a high-fidelity simulation. *AACN Advanced Critical Care*, *27*(1), 71–77. https://doi.org/10.4037/aacnacc2016569

Woda, A. A., Gruenke, T., Alt-Gehrman, P., & Hansen, J. (2016). Nursing student perceptions regarding simulation experience sequencing. *Journal of Nursing Education*, *55*(9), 528–532. https://doi.org/10.3928/01484834-20160816-07

Yascavage, C. L. (2016). *Qualitative study of adjunct clinical nursing instructors and their preparedness for teaching critical thinking* (Publication No. 10241141) [Doctoral dissertation, Capella University]. ProQuest Dissertations and Theses Global.

Zebreski, L., Bloodgood, K., & Wyble, K. (2021). Preparing neonatal nurses for improved performance, professional development, and national certification through simulation. *Advances in Neonatal Care*, *22*(4), E131–E136. https://doi.org/10.1097/anc.0000000000000946

Appendix A: Letter of Cooperation

Beverly Kent
President
Indiana Association for Nursing Professional Development
Indianapolis, IN

March 26, 2020

RE: Letter of Cooperation through Conduct Research at Your Association

Dear Ms. Kent:

This letter is for you to review for acceptance to conduct a research study through your organization of Indiana Association for Nursing Professional Development pending approval from your association and Walden University's IRB.

I am writing to request permission to conduct a research study in connection with the Indiana Association for Nursing Professional Development organization. I am currently a nurse educator in Indiana and a doctoral candidate majoring in Higher Education and Adult Learning. The title of my research project is "Nursing Instructor Preparedness in the Use of Simulation in Nursing Education." Prior to approval from the Walden University IRB, I must obtain and submit a letter of cooperation from a local organization, preferably this organization for professional development.

In the proposed research study, I plan to explore the challenges of nursing educators' preparedness when providing simulation-based training to nursing students. The two research questions guiding my research are:

RQ1: What are nursing educators' perceptions about their challenges of preparing to perform simulation-based training activities?
RQ2: What support do the nursing educators' need to help them improve their competence when providing patient simulation activities?

The need from this association is minimal but does include permission to contact the nursing educators for study recruitment purposes. Data collection will be conducted using an online confidential questionnaire. Completion of the questionnaire will take approximately 15-30 minutes. No identifying information will be collected; therefore, all results will remain anonymous.

Participants for my study will be nursing educators who have had experience using simulation, or who currently use simulation as a teaching modality. Criteria for selecting nursing educator participants will be the number of years teaching using simulation activities. Nurse educators will be selected based on 1-5 years of experience, 6-10 years, or 10 or more years of teaching experience using simulation as a teaching modality. I will select 3-4 participants for each category of years of experience using simulation, 1-5 years, 6-10 years, or 10 or more years.

Participants will remain anonymous in the published study. Reference to the study participants will be made only as a mid-western nursing association. Statements made by the participants will be coded and used as examples in the study findings. Hopefully, any insights gained will help future nursing educators when training or utilizing patient simulation to the fullest advantage to teach nursing students.

If you are not the person to make this decision, please kindly direct me to the appropriate person. I am available by telephone or email to answer any questions or concerns that you may have. You may contact me at marcelene.hart@waldenu.edu or cell phone text 317-748-7024 (please leave text if no answer).

For your convenience, I have attached an example of a completed letter of cooperation provided by Walden University. If the authorized designee agrees, please place the letter on your organization's letterhead and kindly sign the letter of cooperation acknowledging your consent and permission for me to conduct this study within your organization.

Sincerely,

Marcelene Hart, MSN, RN
Doctoral Candidate, EdD Higher Education in Adult Learning
Riley College of Education and Leadership
Walden University

INDIANA ASSOCIATION FOR NURSING PROFESSIONAL DEVELOPMENT (IANPD)

March 30, 2020

Dear Marcelene Hart,

Based on my review of your research study, "Educator Preparedness in the Use of Simulation in Nursing Education", I give you permission to conduct research with Indiana Association for Nursing Professional Development. As part of this study, I authorize you to contact nursing educators for study recruitment purposes and survey adult participants for the study. Individuals' participation will be voluntary and at their own discretion.

We understand that our organization's responsibilities will include contacting our nursing educators through email to send the link to the online surveys. By completing the survey you are also providing informed consent to participate in the research study. We reserve the right to withdraw from the study at any time if our circumstances change.

I understand that you will not be naming our organization in the doctoral research study that is published in ProQuest.

I confirm that I am authorized to approve research in this setting and that this plan complies with the organization's policies.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the researcher's supervising staff without permission from the Walden University IRB.

Sincerely,

Beverly Kent, MSN, RN, BC-RN
IANPD President
9242 Dawn Dr
Brownsburg, IN 46112

Appendix B: Survey Questionnaire Protocol

RQ1: What are nurse educators' perceptions of their challenges in preparing to perform simulation-based training activities?

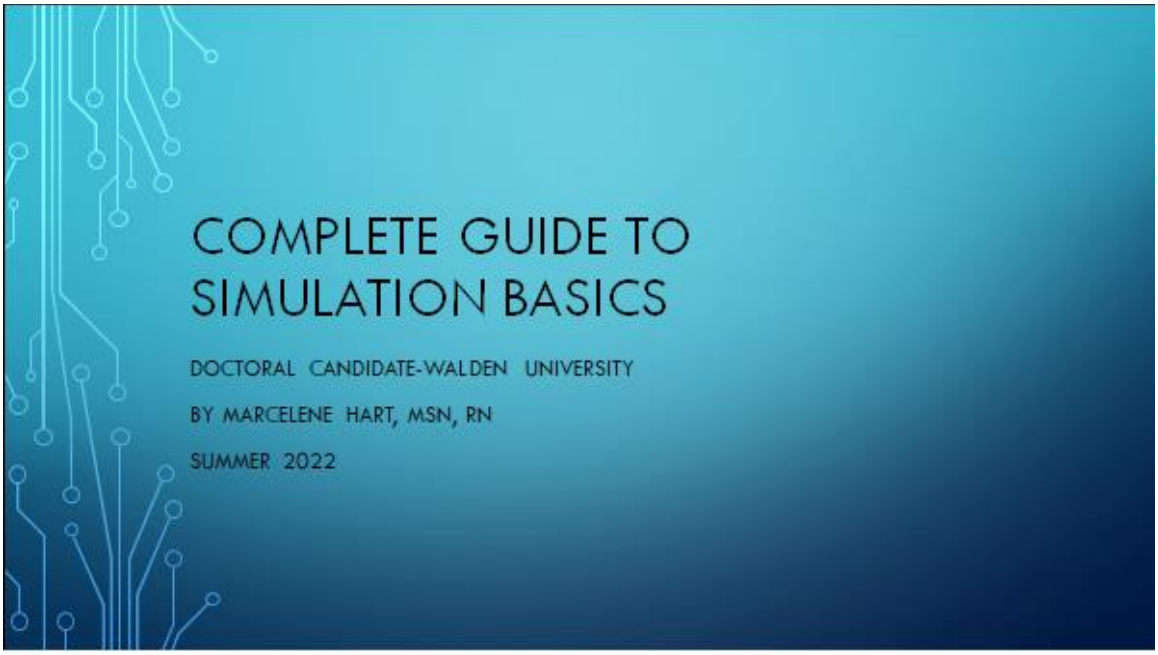
1. How do you think nurse educators should prepare for simulation?
2. What are your perceptions of the challenges you experience in simulation?
3. What do you consider challenges when preparing for simulation activities?
4. What are some challenges you have experienced while preparing for simulation?
5. What would you change to help you better prepare for simulation?
6. Do you have any certifications in the use of simulation?

RQ2: What support do nurse educators' need to help them improve their competence when providing patient simulation-based activities?

1. What do you feel nurse educators need to do to better improve in simulation?
2. How would a nurse educator improve their competence in simulation skills?
3. How do you describe competence?
4. What skills do you feel are needed for simulation activities?
5. What do you believe is needed to feel competent in simulation-based training?
6. Tell me about your simulation experiences.

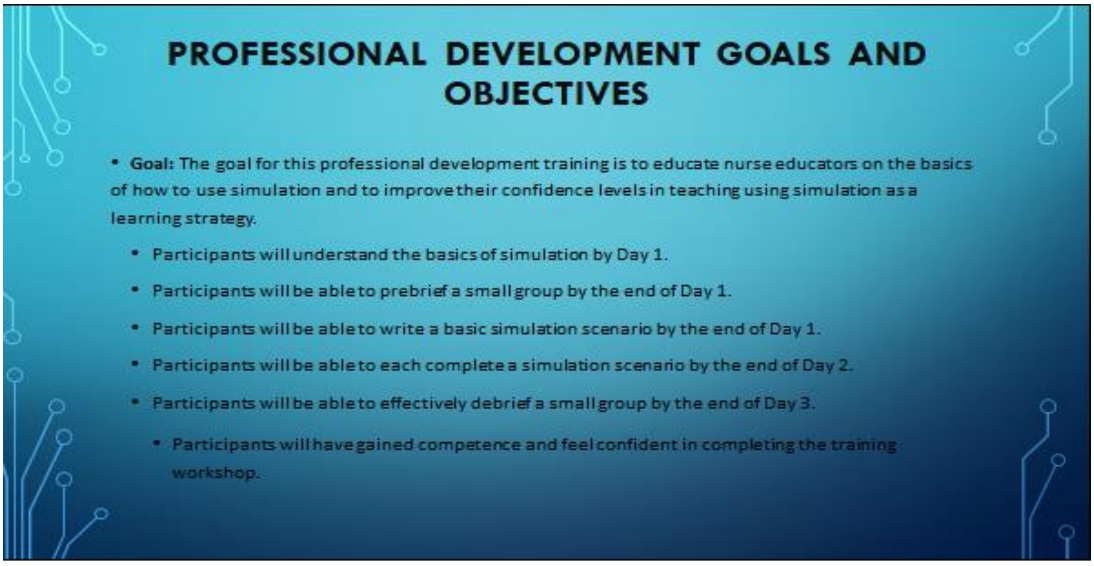
Appendix C: The Project

The professional development training includes a 3-day training series, each section will be in 8-hour learning increments for a total of 24 hours of simulation preparedness activities. Each section is as follows: (a) preparing for a simulation activity; (b) learning how to prebrief simulation activities; (c) how to write a simulation scenario; (d) basic operation of a high-fidelity mannequin; and (f) debriefing exercises. This professional development training is a basic readiness guideline to help the nurse educator build confidence and feel more competent in integrating a simulation scenario into their curriculum.

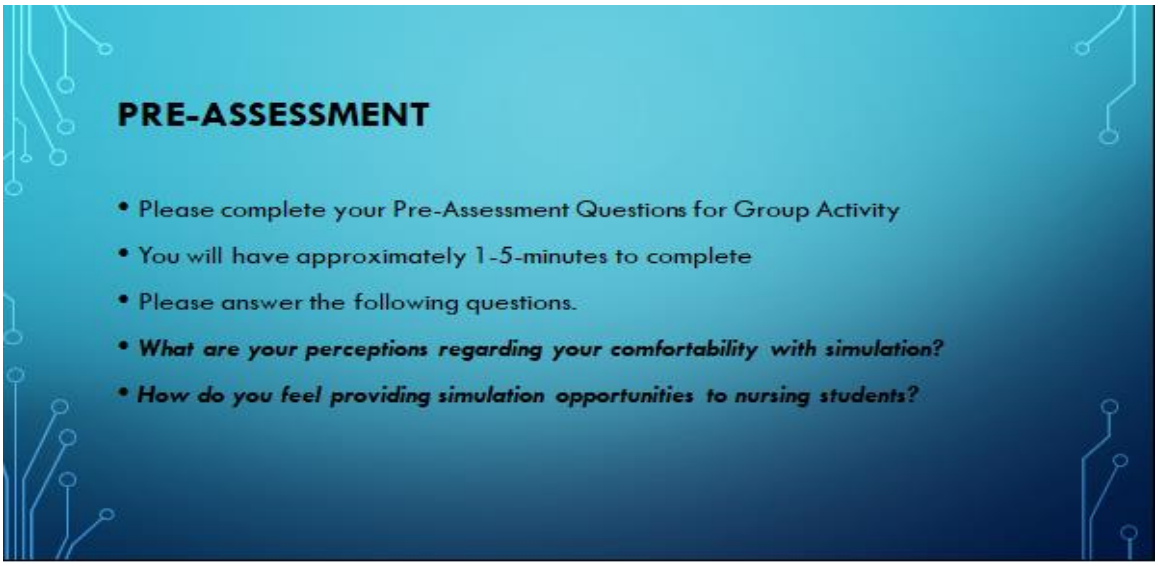


Notes for Presenter:

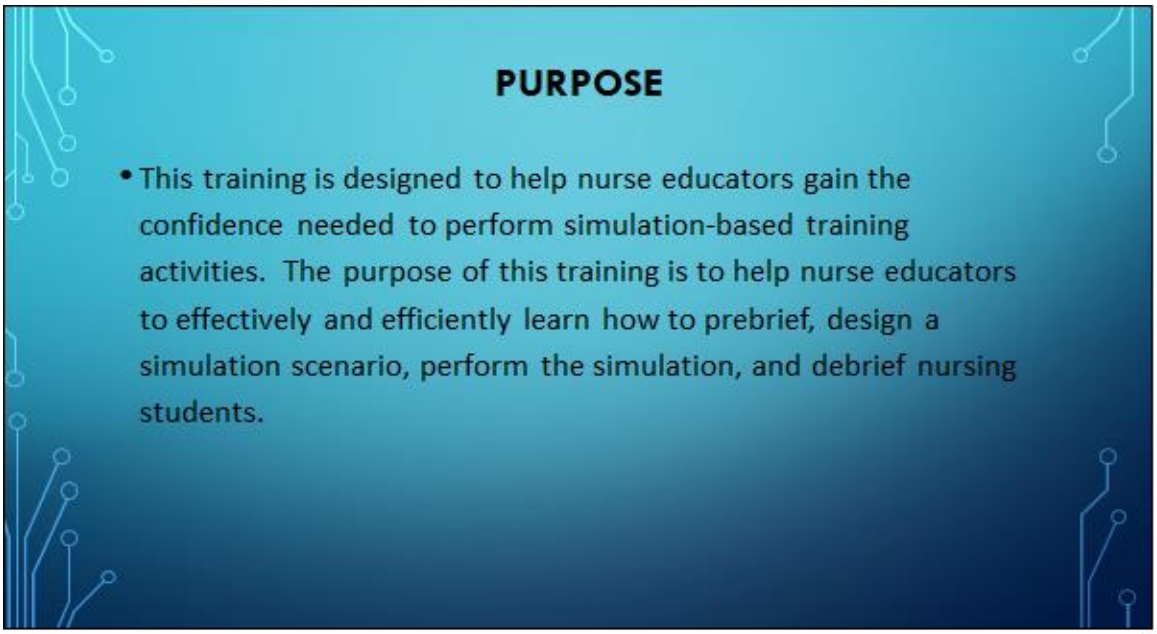
- Ask participants to sign-in with email addresses when they arrive, log onto laptops.
- When completed we will start with self introductions.



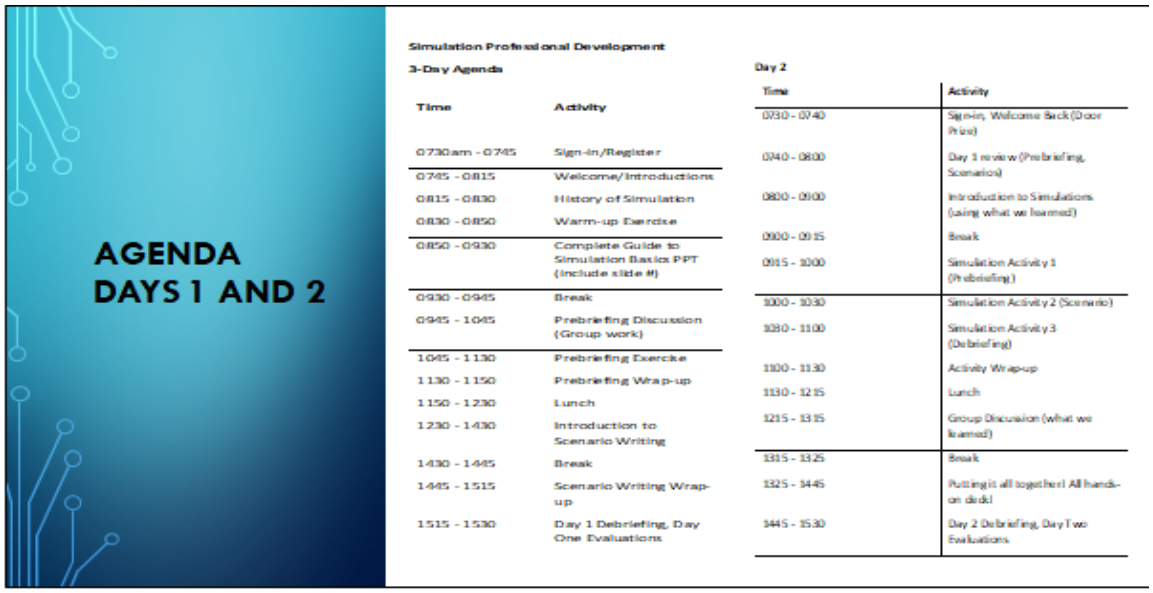
- Discuss the goals and objectives for the day
- Hand out copies of PPTs with Links provided for activities
- Provide Evaluation links or paper copies if needed



Presenter: 1-5 minute Pre-Assessment activity
Provide opportunity to individuals to share their feelings about simulation.
Group Discussion.
Participants will write on paper or within their PPT presentation handout.



- Review goals and purpose of the training.
- Review Norms
- Clarify any other class/training expectations



AGENDA
DAYS 1 AND 2

Simulation Professional Development
3-Day Agenda

Time	Activity
0730am - 0745	Sign-in/Register
0745 - 0815	Welcome/Introductions
0815 - 0830	History of Simulation
0830 - 0850	Warm-up Exercise
0850 - 0930	Complete Guide to Simulation Basics PPT (Include slide #)
0930 - 0945	Break
0945 - 1045	Prebriefing Discussion (Group work)
1045 - 1130	Prebriefing Exercise
1130 - 1150	Prebriefing Wrap-up
1150 - 1230	Lunch
1230 - 1430	Introduction to Scenario Writing
1430 - 1445	Break
1445 - 1515	Scenario Writing Wrap-up
1515 - 1530	Day 1 Debriefing, Day One Evaluations

Day 2

Time	Activity
0730 - 0740	Sign-in, Welcome Back (Door Prize)
0740 - 0800	Day 1 review (Prebriefing, Scenarios)
0800 - 0900	Introduction to Simulations (using what we learned)
0900 - 0915	Break
0915 - 1000	Simulation Activity 1 (Prebriefing)
1000 - 1030	Simulation Activity 2 (Scenario)
1030 - 1100	Simulation Activity 3 (Debriefing)
1100 - 1130	Activity Wrap-up
1130 - 1215	Lunch
1215 - 1315	Group Discussion (what we learned)
1315 - 1325	Break
1325 - 1445	Putting it all together! All hands-on deck!
1445 - 1530	Day 2 Debriefing, Day Two Evaluations

- ***Presenter:*** Provide handouts and Agenda Review
- Answer questions from the participants during this time

Day 3

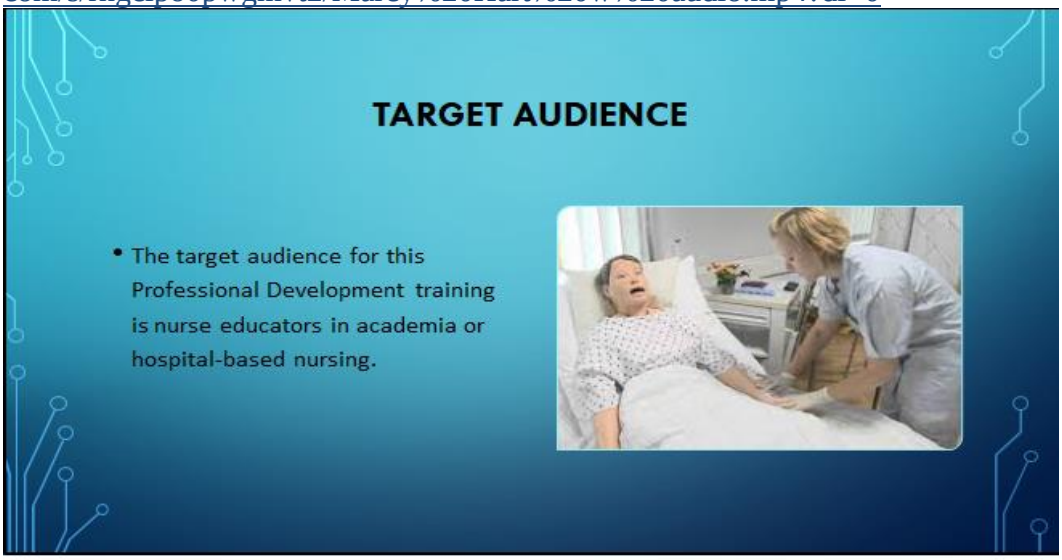
AGENDA
DAY 3-WRAP UP

Time	Activity
0730 - 0745	Sign-in, Welcome...Almost there! Door Prize
0745 - 0830	Day 2 review (Simulation activities)
0830 - 0850	Questions & Answers
0850 - 0930	Group 1 MegaSim (Prebrief & Sim)
0930 - 0950	Group 1 Debriefing
0950 - 1005	Break
1005 - 1040	Group 2 MegaSim (Prebrief & Sim)
1040 - 1100	Group 2 Debriefing
1100 - 1200	Group Discussion
1200 - 1240	Lunch
1240 - 1330	Groups 1 & 2 (5 minute summaries)
1330 - 1430	Groups Wrap up
1430 - 1530	Final Debriefing Days 1-3, Reflections, Post Evaluations, Final Wrap up

Presenter: Agenda and PPT Handouts are provided to participants

Presenter:
Participants to watch 10-min video.

Please click on the Hyperlink provided below to watch the video. https://www.dropbox.com/s/rhgclpo0pwgmvt2/Marcy%20Hart%20w%20audio.mp4?dl=0



- Presenter will discuss the importance of the selected targeted audience.
- Nurse Educators (new or seasoned) in academia or hospital-based education

HISTORY OF SIMULATION

- https://www.nursing.virginia.edu/news/flashback-history-of-simulation/

More than a century

While sophisticated technology and high-fidelity simulators is a recent innovation, the concept of simulation has been part of traditional nursing education programs for more than a century. In the post-World War II period, simulation took on new relevance; increasing complex health care services demanded more preparation and practice.

History of Simulation • University of Virginia School of Nursing

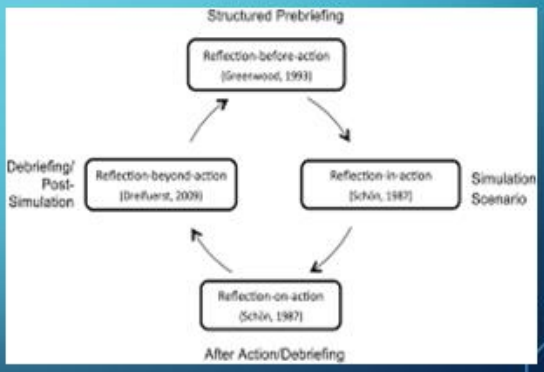
www.nursing.virginia.edu/news/flashback-history-of-simulation/

PREBRIEFING SELF-ASSESSMENT ACTIVITY TESTING YOUR KNOWLEDGE!

- **Project Study PreBriefing Assessment.docx**

- Prcvided Link for the PreBriefing10-min Self-Assessment
- Prcvide participants 10-min to ccmplete self-assessment
- Ensure to print paper copies for individuals who may not have computer resources
- This self-assessment may be anonymous and will be used in the class for Day One activity.

ROAD TO PREBRIEFING

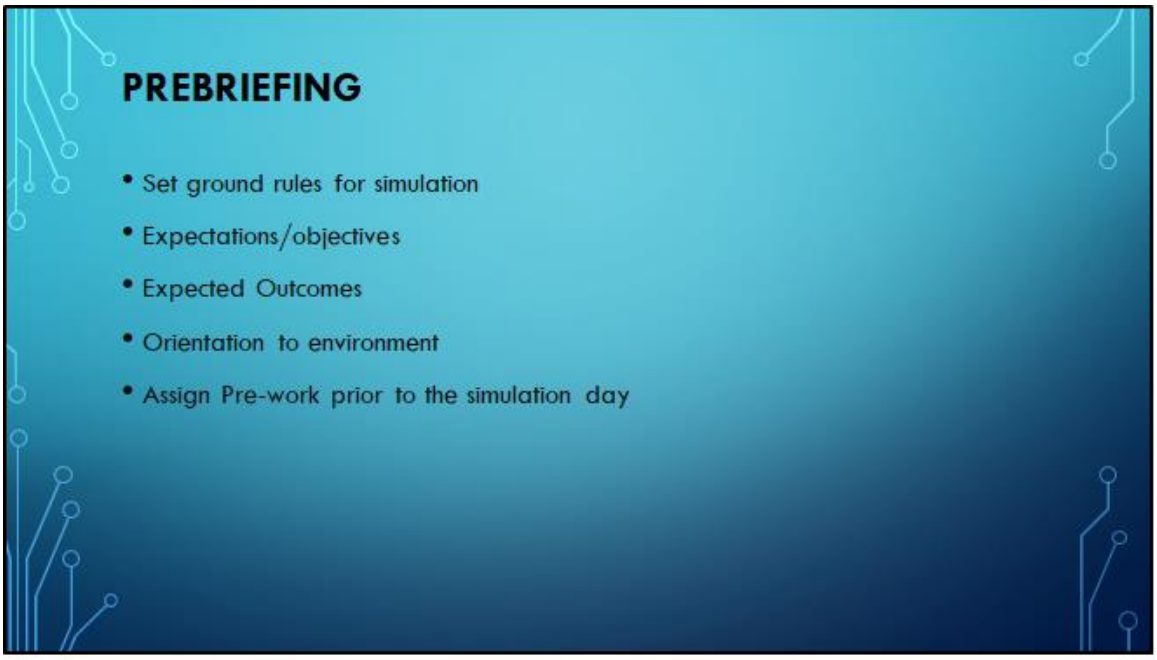


Presenter:

Present slide 12 to participants for group discussion.

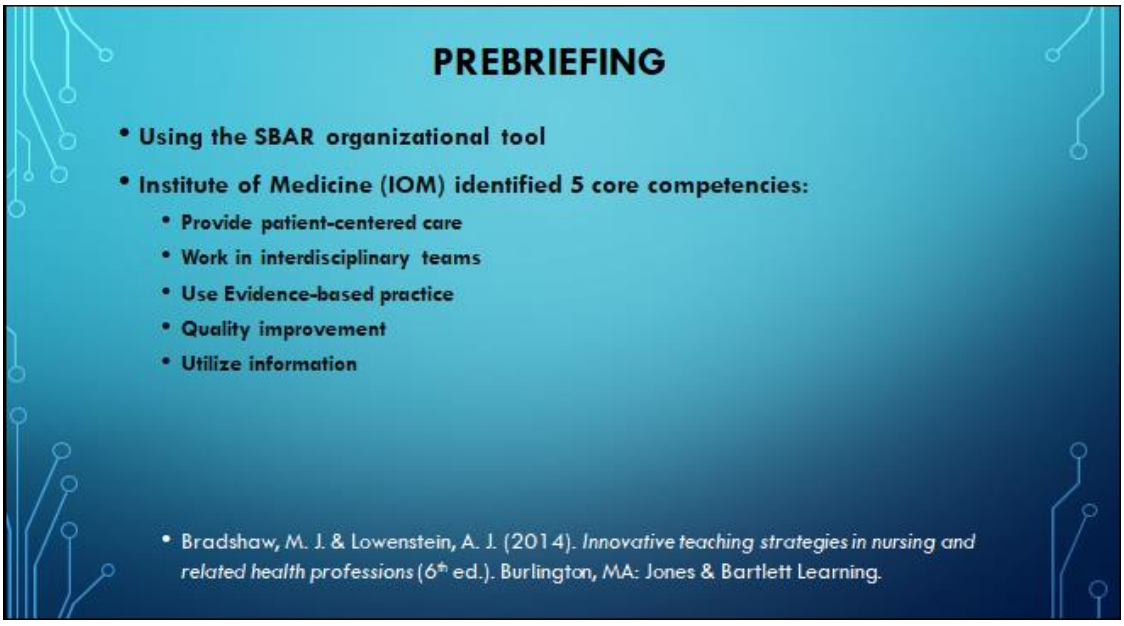
PREBRIEFING

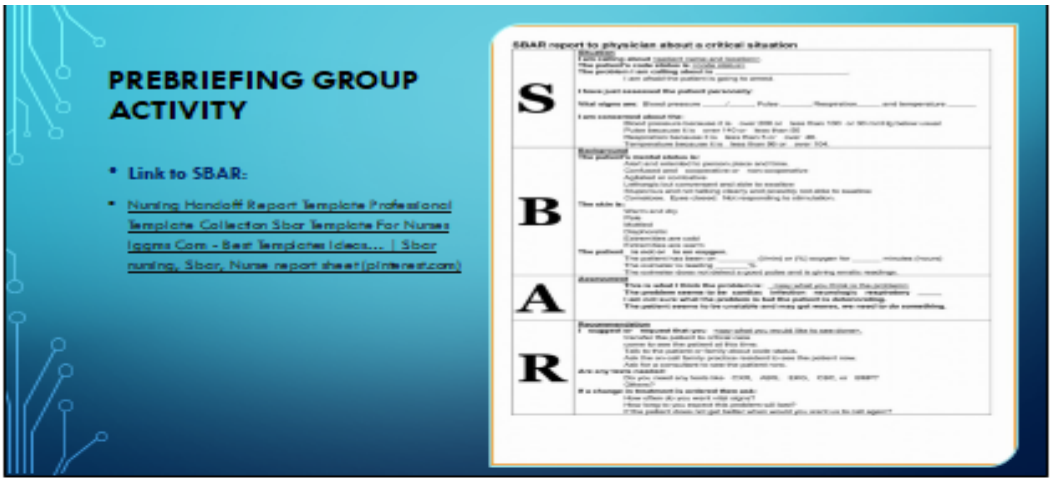
- By definition: prebriefing is an orientation process held prior to the start of the simulation experience or activity (https://qsen.org/strategies/simulation/pre-briefing). This gives specific instructions to individuals for preparation for the simulation activity.
- Simulation must be purposeful and systematic
- Must achieve expected outcomes
- Facilitate effectiveness of simulation-based learning experiences (INACSL Standards Committee, 2016.



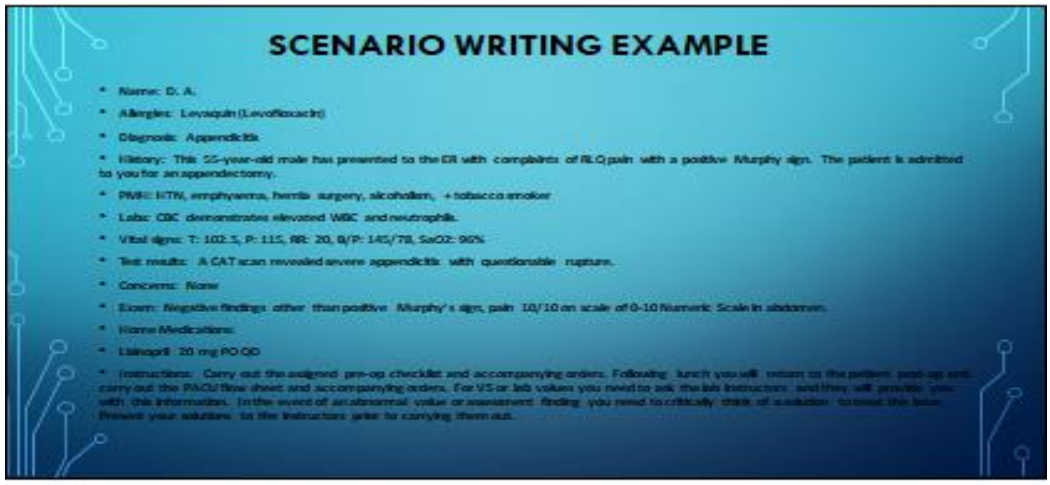
Presenter:

Slide 13 is a slide specifically created to discuss the rules of simulation. This may be shared with the students to follow.

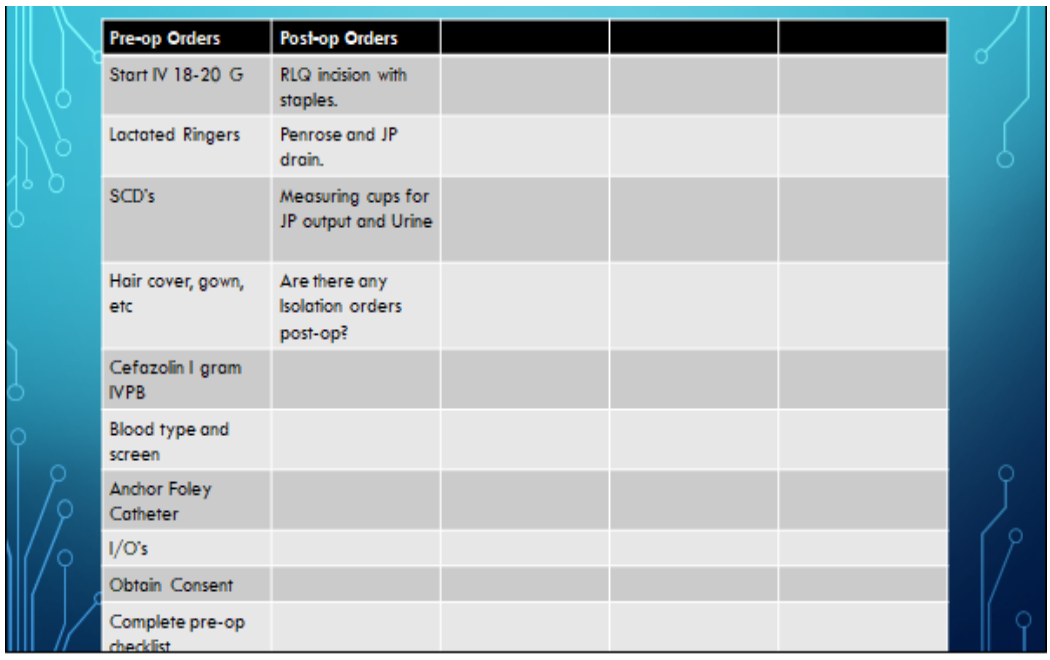




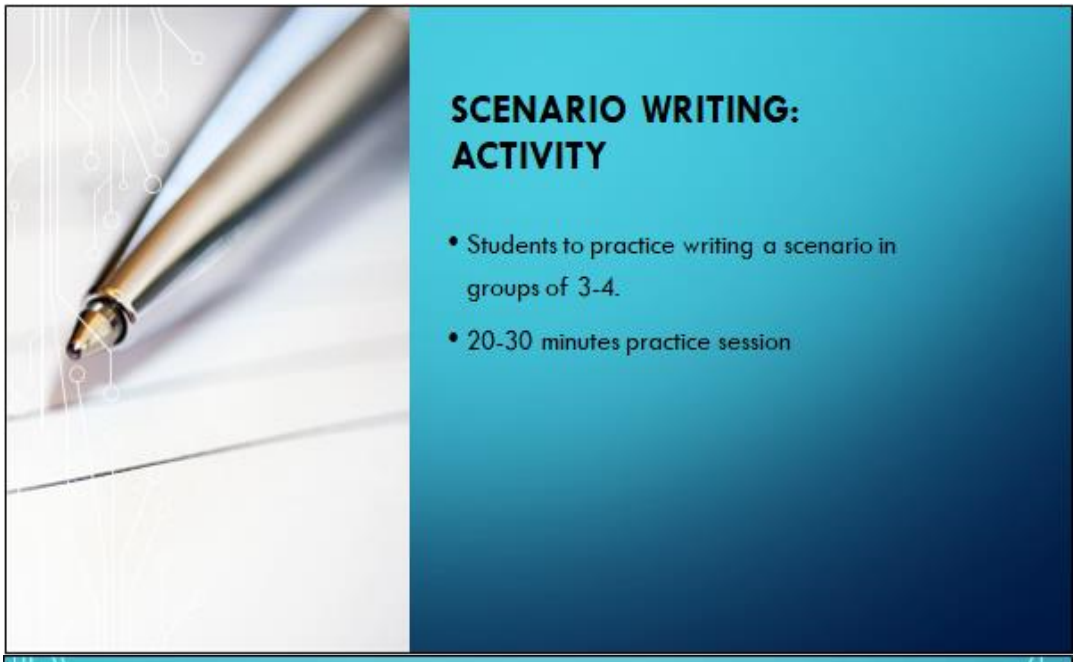
- ***Presenter*** Notes:
- Group activity of 4-5 participants
- Pair groups of 4-5
- Provide SBAR handout to participants
- Provide a very basic patient scenario from an audience volunteer
- This activity will provide a basic pre-briefing activity. It will provide an insight into utilizing the SBAR form and will use a basic scenario provided by the instructor for this activity.
- Activity 1: SBAR (reporting to each other) Learning to use the SBAR form. Nursing Handoff Report Template Professional Template Collection Sbar Template For Nurses Iggms Com - Best Templates Ideas... | Sbar nursing, Sbar, Nurse report sheet (pinterest.com)
- Scenario 1: Short activity: Learning to communicate with others using the SBAR tool. (Provide participants with a basic scenario).
- Each participant will complete a basic general survey assessment on their partner, this will include basic demographic information only.
- Information to collect: Name, demographics, pertinent medical history, allergies, social history, occupation, and gender.
- Learning how to communicate helps to develop communicative competence

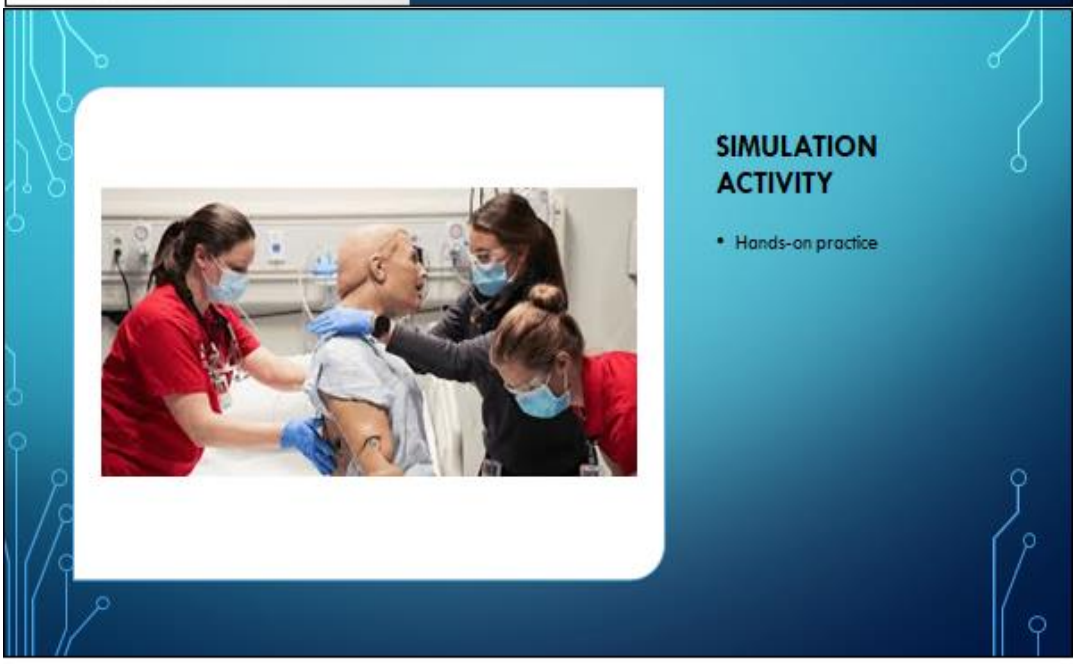


Participants to use SBAR tool in communication.
Students to write a short example of a scenario of their own working in pairs or groups of 3-4.
Scenario will be implemented for a hands-on simulation event.

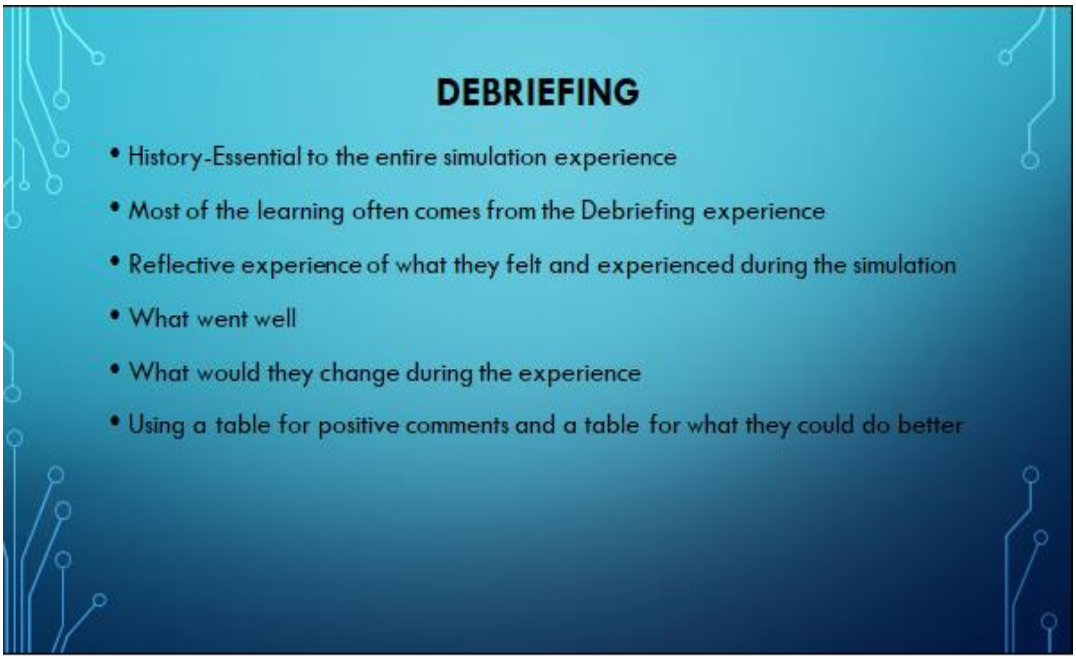


Pre-op Orders	Post-op Orders			
Start IV 18-20 G	RLQ incision with staples.			
Lactated Ringers	Penrose and JP drain.			
SCD's	Measuring cups for JP output and Urine			
Hair cover, gown, etc	Are there any Isolation orders post-op?			
Cefazolin I gram IVPB				
Blood type and screen				
Anchor Foley Catheter				
I/O's				
Obtain Consent				
Complete pre-op checklist				



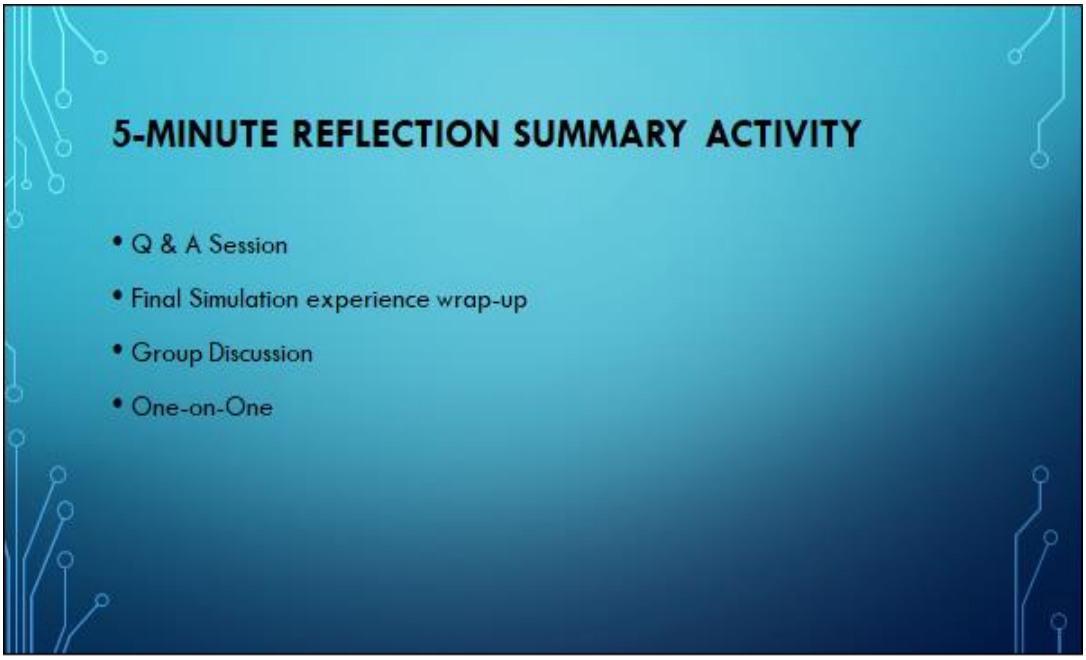


Presenter: participants will be instructed to go to the lab or a mannequin may be brought to the classroom.
Small groups of 3-4 participants will use the scenario provided and work through a simulation on a mannequin.
Participants may readily volunteer their scenario to be performed in small group sessions and may also be used for the mega-sim experience.



Presenter to provide an example of a Debriefing experience during the PD training. Participants to use this in their reflective experience:


DEBRIEFING-GROUP ACTIVITY
How was the experience?
What did you learn today?
How did you use critical thinking today?
What clinical judgement/reasoning skills did you use? Why?
What might you have changed or done differently?
What was the priority focus of the simulation experience?
What would you do to improve the simulation experience?
Were you satisfied with the care you provided?
Would you recommend this experience to others?
If given the opportunity, how would change your experience?


5-MINUTE REFLECTION SUMMARY ACTIVITY
• Q & A Session
• Final Simulation experience wrap-up
• Group Discussion
• One-on-One


REFERENCES
• Bradshaw, M. J. & Lowenstein, A. J. (2014). Innovative teaching strategies in nursing and related health professions (6th ed.). Burlington, MA: Jones & Bartlett Learning.
• https://www.nursing.virginia.edu/news/flashback-history-of-simulation/
• https://qsen.org/strategies/simulation/pre-briefing
• INACSL Standards Committee, 2016
• Nursing Handoff Report Template Professional Template Collection Sbar Template For Nurses Iggms Com - Best Templates Ideas… | Sbar nursing, Sbar, Nurse report sheet (pinterest.com)

Formative Evaluation Project Pre-Survey

Nurse Educator feedback directions: Please review the Project PowerPoint, provide your feedback, and return by email.

Link to PPT Project:

1. What might be added, deleted, or revised in this Professional Development to increase nurse educators' understanding when using simulation? Please provide your answer.

2. What could be added, deleted, or revised in this PD to increase nurse educator confidence levels in using simulation? Please provide your answer.

3. What could be added, deleted, or revised in the PD training to make planning simulation activities easier? Please provide your answer.

4. What could be added, deleted, or revised in the PD project to improve the overall efficiency when performing simulation-based training? Please provide your answer.