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Enhancing Urinary Catheter Skills Among Clinically Practicing Nurses

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This is to certify that the doctoral study by

Arvella Battick

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Abstract

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MSN-Ed, University of Phoenix, 2011

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Project Submitted in Partial Fulfillment

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Abstract

Catheter-associated urinary tract infections (CAUTIs) contribute to increased patient length of stay and health care costs. The literature has shown that one plausible cause of CAUTIs is improper Foley catheter insertion techniques among nurses. The purpose of this project was to answer the project-focused question that asked if there was a difference in nurses' practice skills following an educational intervention involving aseptic Foley insertion. Benner's novice-to-expert theory was the conceptual model for the study. Nurses from a college nursing program were asked to demonstrate Foley catheter insertion on a simulation model, and their technique was evaluated using a standardized checklist. Following the simulation demonstration, an educational intervention was conducted with ample opportunity for the nurses (n = 16) to practice catheter insertion. Following the practice opportunity, the nurses completed a 2nd return demonstration. Percentages of correct skills from the preintervention observation were compared with percentages of correct skills from the postintervention observation to determine the effectiveness of the education intervention in enhancing Foley catheter skills in an acute care setting. Results of a paired t test revealed a significant increase (p < .01) in performance scores on the demonstrations after the intervention and catheter insertion techniques were taught. Hospitals and nursing education programs could implement simulation interventions to improve nurses' Foley catheter insertion skills. This study has the potential to contribute to social change by providing evidence that simulation training can lead to improved competence and confidence with nursing skills.

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Dedication

This project is dedicated to God for never leaving me or forsaking me on this journey and for providing me with the strength, courage, and wisdom to complete it.

It is the Lord who goes before you. “He will be with you; He will not leave you or forsake. Do not fear or be dismayed.” Deuteronomy 31:8.

“I am nothing without you, but I am everything with you. I can do all things through Him who strengthens me.” Philippians 4:13.

“Ask the Lord to bless your plans and you will be successful in carrying them out.” Proverbs 16:3.

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Section 1: Nature of the Project

Introduction

Catheter-associated urinary tract infections (CAUTIs) are a cause for concern among health care administrators due to increased patient morbidity, mortality, health care costs, and length of stay (Meddings et al., 2013). Currently, between 15% and 25% of hospitalized patients have urinary catheters inserted during their hospital stay, and the Centers for Disease Control and Prevention (CDC) estimated that 75% of patients with a catheter will develop a CAUTI (CDC, 2015). A CAUTI occurs as a result of bacteria entering the urinary tract via urinary catheter insertion. In 2013, researchers at the Joint Commission (JC) Patient Safety Advisory Group cited CAUTIs as one of several national patient safety problems and recommended that JC leadership identify CAUTIs as a priority. The JC leadership recommended that hospital leadership in the United States implement evidence-based guidelines, which included performing standardized catheter insertion, maintenance, and surveillance to reduce infection rates among hospitalized patients (as cited in Townsend, Anderson, & Meeker, 2013).

Inserting indwelling catheters aseptically is essential, because bacteria ascend from either the catheter or from the nurse's hands, which can lead to CAUTI. Researchers have estimated that health care providers could prevent approximately 17%–69% of CAUTIs by implementing and adhering to appropriate infection control measures during insertion, given that the single major cause of CAUTIs is improper catheter insertion (Willette & Coffield, 2011). Willette and Coffield (2011) recommended that health care

providers, especially nurses, master urinary catheter insertion using aseptic techniques as part of their nursing school clinical experience. Despite this recommendation, the authors found that little instruction related to catheter insertion is included in the nursing curriculum. Often it is the nurses' responsibility to learn catheter insertion procedures independently (Willette & Coffield, 2011).

Educating nurses to use aseptic techniques during catheter insertion is a plausible solution to minimize the risk of CAUTIs (Fakin, Saint, Krein, & Olmsted, 2007). In fact, researchers for the Agency for Healthcare Research and Quality emphasized that nurses should employ aseptic techniques to prevent CAUTIs (as cited in Fakin et al., 2007). It is the responsibility of nursing schools leadership to design curricula and hire qualified faculty to develop and implement strategies to teach nursing students to provide competent care (Hughes, 2008). Hughes (2008), along with Rhodes and Curran (2005), noted that because nurses are under continuous scrutiny to provide safe patient care and are primarily responsible for inserting Foley catheters, it is a cause for concern when nurses lack competency in performing urinary catheter aseptic insertion properly. However, researchers at the American Nurses Association (2014) noted that not all nursing students learn each necessary skill proficiently as part of their student curriculum, and over time nurses may lose their skills if those skills are underused. The American Nurses Association researchers further stated that maintaining competency is a professional obligation for all registered nurses.

In today's nursing workforce, there are more than one million nurses aged 50 years or older (Sobeih & Nasr, 2015) who graduated from a nursing school up to 40 years ago and continue to provide patient care. To address issues related to professional shortcomings and loss of skills competence, researchers from the Virginia Board of Nursing (2013) suggested that part-task trainers could help registered nurses learn and become proficient in performing specific tasks such as safe insertion of Foley catheters. Part-task trainers use assistive simulation to enable users to develop proficiency with practices, and they have been rated by researchers as one of the safest learning and practice mechanisms for nursing students (Virginia Board of Nursing, 2013). When nursing students practice with simulation models, they can identify their mistakes and correct them in simulation as opposed to in clinical settings where patient safety is at risk. Jeffries and Rizzolo (2007) concluded that nurses who apply simulation training develop an increased level of skill confidence.

Nursing curricula have used simulation since 2009, and simulation training parallels what nurses will encounter in their clinical practice. Gomez and Gomez (1987) argued that simulation is an art and science that student nurses can use to obtain clinical experience in a safe setting. Improving nurses' learning via simulation can increase nurses' competency in a nonthreatening, nonintimidating environment, providing nursing staff with an opportunity to practice skills repeatedly until mastery is achieved and ensuring safe patient care (Patil et al., 2016). This is especially important for entry-level registered nurses, who usually exhibit concern related to harming patients and believe

they are unprepared for patient care assignments (Blum, Borglund, & Parcells, 2010). Using simulation, nurses can practice a skill in a safe environment without risk or injury to a patient. McCallum (2007) explained that supervised simulation in a stress-free environment enables nursing students to practice patient care and decreases personal anxiety when nurses enter a clinical patient care setting. In addition, researchers Kiat, Mei, Nagammal, and Jonnie (2007) and Lasater (2007) noted that simulation practice in a controlled environment improved new registered nurses' self-confidence to perform tasks.

Practitioners working in 21st century health care organizations must provide high-quality patient care. Nurses must be competent in specific skills and provide safe, quality care to patients. Self-confidence is especially important for nurses to ensure patient safety (Blum et al., 2010). Self-confidence is a feeling of trust in one's ability and of competence to perform a skill. Jordan and Farley (2008) posited that practicing specific skills can positively influence and develop nurses' self-confidence and lead to competence in professional practice. Blum et al. (2010) and Jeffries (2007) both noted that addressing nursing students' self-confidence through simulation training resulted in positive outcomes for most students. Patil et al. (2016) stated, "If the nurse can shift from *consciously incompetent* (thinking they can't do it) to become *consciously competent* (greatly thinking they can do it) then the nurse practice becomes perfect" (p. 1834). Therefore, allowing new registered nurses to undertake training related to specific skills

using simulation models might enable nurses to gain the skills needed to perform nursing tasks in practical settings.

To enhance nurses' skills, the purpose of this capstone project was to determine if an educational intervention using simulation training and a skills checklist enhances proper aseptic techniques during catheter insertion among nurses practicing in a clinical setting. This project has potential implications for social change because nursing education and practice settings currently underuse simulation training. The results of this study could contribute evidence to the utility of simulation training for improving nursing skills like Foley catheter insertion.

Problem Statement

The problem addressed in this study is the high rate of CAUTI among catheterized patients in hospital settings in the United States. Between 15% and 25% of hospitalized patients have urinary catheters inserted, and 75% of those patients will develop a CAUTI (CDC, 2015). According to one recent estimate, 40% of health care professionals are not practicing proper aseptic Foley catheter insertion techniques (Medline, 2010). This is a problem because CAUTIs can be costly—even fatal to patients with compromised immunity—and are preventable. When nurses insert catheters improperly, there is an increase in patient infections, additional health risks to patients, higher health care costs, and longer recovery periods for patients, resulting in increased hospital stays (Willette & Coffield, 2011). This is relevant to the field of nursing practice because nurses are the primary health care providers tasked with inserting Foley

catheters, and nurses must develop competence and confidence in this skill in order to provide safe, quality patient care and advance from novice to expert in their nursing careers.

Purpose Statement

There is a gap in practice related to the correct insertion of Foley catheters in hospital settings. Up to 40% of health care professionals are not practicing aseptic Foley catheter insertion techniques (Medline, 2010), resulting in unnecessarily high incidence of CAUTIs. This underscores a need for improved training in Foley catheter insertion; therefore, the purpose of this capstone project was to determine if an educational intervention using simulation training and a skills checklist enhances proper aseptic techniques during catheter insertion among nurses practicing in a clinical setting. The research addressed the following project-focused question: Is there a difference in nurses' practice skills following an educational intervention involving aseptic Foley insertion?

This study has the potential to address the gap in practice by demonstrating that simulation training can effectively improve Foley catheter insertion techniques. If hospitals and education institutions implement this simulation training, the gap in practice could improve because more nurses could begin to insert Foley catheters using correct aseptic techniques.

Nature of the Doctoral Project

Hospitals and educational institutional staff need to ensure that health care providers tasked with inserting catheters are competently trained to initiate and complete

the medical procedure. To address this problem, I conducted a quantitative study to determine whether an educational intervention using a part-task trainer simulation improved practicing nurses' Foley catheter insertion skills. I collected data by observing participants' Foley catheter insertion and completing a skills checklist before and after the simulation training. To analyze these data, I used paired *t* tests to compare percentage of skills performed correctly before and after the intervention. Additionally, I collected demographic information using a demographic questionnaire and used descriptive statistics to characterize the research sample. This approach addressed the gap in practice related to the incorrect insertion of Foley catheters in hospital settings because it demonstrated that simulation training can improve Foley catheter insertion skills among clinical nurses.

Significance

The primary stakeholders in this project are the nurses and the management of the hospitals at which the participants work. The results of this study could affect these stakeholders because, given the utility of the simulation training demonstrated in the results, the hospitals could decide to mandate the simulation training or to implement assessment of catheter insertion skill using the skills checklist. These measures could improve Foley catheter insertion and decrease the rate of CAUTIs at the local hospitals involved in the study.

This study makes a broader contribution to nursing practice because the problem of high rates of CAUTIs and improper Foley catheter insertion applies, not just to the

hospitals in this study, but nationwide. Hospital management, nursing leadership, and nursing educators could use the results of this study as evidence to support improvements in training and assessment for nursing students and practicing nurses. Further, the results of this study could encourage researchers and practitioners to investigate the utility of part-task trainer simulations for improving other nursing skills aside from Foley catheter insertion.

This study has the potential to influence social change by demonstrating the utility of simulation training for Foley catheter insertion. Although practitioners recognize simulation training as an important learning strategy in nursing education, in practice faculty apply simulation training inconsistently in nursing curricula (Taplay, Jack, Baxter, Eva, & Martin, 2014). This study shows that simulation training can assist nurses to achieve competency with aseptic insertion of a urinary catheter, potentially influencing nursing faculty and hospital management to adopt simulation training more broadly. Expanding access to simulation training to include nurses whose clinical training in certain skills might have been limited during their formal education or whose skills might have lapsed over time may provide benefits patients since nurses could be increasingly competent in their ability to provide safe and effective care.

Summary

Willette and Coffield (2011) determined that CAUTIs contribute to increased health care costs, lengthier hospital stays, increased rates of mortality and morbidity, and increased patient risk. Therefore, it makes financial sense for health care leaders and

administrators of educational institutions to respond, focusing attention on high CAUTI rates by assessing nurses' competencies regarding aseptic urinary catheter insertion (Rhodes & Curran, 2005). Rhodes and Curran (2005) posited that simulations in the form of part-task trainers are a plausible method for providing nurse practitioners with the opportunity for continual practice of a new or lapsed skill and to build their competency with aseptic urinary catheter insertion techniques. To investigate this hypothesis, I examined whether a Foley catheter insertion simulation training improves practicing nurses' scores on a checklist assessment of aseptic catheter insertion techniques. The next section provides the background and context of the study, including the theoretical background and a review of literature relevant to the research project.

Section 2: Background and Context

Introduction

This research project addressed the problem in nursing practice with a high rate of CAUTI among catheterized patients in hospital settings in the United States, in part because many health care professionals are not practicing aseptic Foley catheter insertion techniques. The purpose of this study was to determine if an educational intervention using simulation training and a skills checklist enhances proper aseptic techniques during catheter insertion among nurses practicing in a clinical setting. The research addressed the following project-focused question: Is there a difference in nurses' practice skills following an educational intervention involving aseptic Foley insertion?

In this section, I provide the theoretical foundation of the research and discusses its relevance to nursing practice. Next, I review the theoretical and empirical literature related to CAUTIs, nurse competency, and simulation training. I also address my role in the project.

Concepts, Models, and Theories

Benner's novice-to-expert theory is the conceptual model for improving nursing skills (Kaminski, 2010). On this model, nurses begin with minimal understanding and advance to a level of professional expertise. The goal is for nurses to progress from being a novice to being an expert. Nurses can gain expertise by practicing their skills using a part-task trainer (Rhodes & Curran, 2005). According to Benner's theory, a nurse advances through five levels to reach the expert stage (Kaminski, 2010).

The first stage of Benner's theory is the novice stage (Kaminski, 2010). Novice nurses lack experience and competence in relation to the clinical area in which they must work. Due to a lack of self-confidence to practice safely, they depend on continuous instructor cues to complete procedures properly (NSW Health, 2011). The second stage is the advanced beginner stage (Kaminski, 2010). Advanced beginner nurses display marginal performance and competence. The advanced beginner nurse has some experience in clinical situations and demonstrates skill efficiency in a clinical setting; however, advanced beginners may still require occasional instructor cues (NSW Health, 2011). The third stage is the competent stage (Kaminski, 2010). A competent nurse has 2 to 3 years of clinical experience and demonstrates clinical competence. The nurse's clinical responses are coordinated and efficient. Competent nurses are able to formulate care plans and abstract and analytical clinical solutions to problems (NSW Health, 2011).The fourth stage is the proficient stage (Kaminski, 2010). A proficient nurse provides clinical solutions using a comprehensive approach, as opposed to a segmented approach, to incorporate long-term, patient-oriented goals. A proficient nurse also demonstrates competence in dealing with clinical situations as they arise and applies past experience when deciding how to incorporate appropriate modifications (NSW Health, 2011). Finally, nurses can advance to the expert stage (Kaminski, 2010). An expert nurse demonstrates expertise to solve clinical problems by drawing on intuition and profound experience. Experts devise targeted solutions quickly, without wasting clinical time or

considering inappropriate alternate solutions. Further, the expert nurse demonstrates a practical and realistic understanding of the problem (NSW Health, 2011).

According to Kaminski's (2010) assessment of Benner's theory, nurses need to practice skills repetitively to achieve a level of competency. Practice of a particular skill indicates a nurse's engagement and desire to master the skill. Thus, the goal of nursing education is for nurses to transfer and apply the skills learned in an educational experience to the clinical setting with competence (Spencer, 2011).

Relevance to Nursing Practice

Sobeih and Nasr (2015) noted that most nurses in their study (mean work experience: 8 years) had only a basic level of education related to urinary catheter management. In addition, they noted that nurses with 20 to 30 years of experience may demonstrate a decreased level of competency regarding certain skills. One of these skills may be catheter insertion, which is a contributing factor to increased rates of CAUTI within health care facilities. Providing educational intervention may be one strategy to address this issue.

There is a lack of research pertaining to usage monitoring related to inserting indwelling catheters in clinical settings (Manojlovich et al., 2015). In fact, Manojlovich et al. (2015) identified, from an observational study of emergency room clinical nurses where the primary insertion rate for indwelling catheters is 95%, that 59% of insertions using aseptic techniques were incorrect. Although hospitals have check-off days for

nursing staff who perform catheter insertions, there are no such processes for clinical faculty who teach new nurses.

Local Background and Content

I identified relevant articles for the literature review by searching Google Scholar, PubMed, Ovid, Medline, and EBSCOhost search engines and databases using the following keywords and key phrases: *aseptic technique*, *Foley catheter insertion, part-task trainer*, *improving nursing skills, improving nursing confidence*, and *evidence-based guidelines.* The search yielded approximately 100 peer reviewed journal articles; these were further refined to those published between 1996 and 2014, resulting in seven articles. I rated the seven articles as A or B, according to the American Association of Critical Care Nurses levels of evidence system (Armola et al., 2009). When clinicians use this system, they can assess research articles' quality (Armola et al., 2009). The topics of interest to in this study are CAUTI, nurses' self-confidence, and using simulation to enhance nurses' confidence to insert a Foley catheter aseptically. Therefore, the literature review contains sections that cover each of these topics.

CAUTIs

CAUTIs represent the largest number of bacterial infections in hospitalized patients (Oman et al., 2011). An estimated 25% of patients hospitalized have a Foley catheter inserted. Evidence-based reviews of clinical practice have identified that inserting Foley catheters using aseptic techniques can aid in the reduction of CAUTIs in clinical settings. However, 40% of health care professionals are not practicing these

prevention measures (Medline, 2010). Hospital administrators need to implement evidence-based guidelines and protocols for the insertion and care of Foley catheters. In addition, health care administrators should assess nurse practitioner competency annually (Oman et al., 2011).

Since nurses are most frequently responsible for inserting Foley catheters, it is imperative the nursing cadres receive training in performing this task in clinical settings. Proper placement of Foley catheters upon first attempt is important because failed attempts may lead to iatrogenic injuries. Foley catheter insertions that require repeated unsuccessful attempts may also necessitate urethral reconstruction (Willette & Coffield, 2011). Improper insertions may further trigger the need for more complex care interventions, more invasive evaluations, lengthier hospital stays, and increased costs of care (Willette & Coffiled, 2011).

Nurse Competency

Hospitals must identify and improve clinical competence in nursing skills. As Hennenman and Cunningham (2005) remarked, the “see one, do one, teach one” (p. 1) approach is effective. In observation, nurses have the opportunity to learn by receiving feedback from experienced practitioners when performing skills (Kim, Lee, Eudey, & Dea, 2014). Lasater and Nielsen (2009) noted that nurses reflect on their confidence with continued practice of skills. Some nurses lack the opportunity to practice the skills in a clinical setting, which results in further elevated level of anxiety. Kendall-Gallagher and Blegen (2009), Roach (2002), and Suliman and Halabi (2007) concluded that safe

practice and clinical judgment is formed from having confidence and competence in skills.

A major objective in nursing education is to train nurses to apply skills in clinical settings. Nurses sometimes that think that they can learn by doing while on the job, but this approach is risky (Patil et al., 2016), since the nurse must have competence to perform required skills with accuracy. Evidence has indicated that using simulation as a learning strategy improves performance in practice areas, which supports the overall objective in nursing to improve patient safety and quality of care (Patil et al., 2016).

Simulation

Simulation is a teaching method that nurse practitioners can use to improve clinical competence through practice and support increased confidence. When nurses undertake simulation training, they can learn from their mistakes openly and freely, without the fear of causing patient harm. In simulation labs, nurses can perform a clinical tasks repeatedly, until they have mastered the target skill. Increasing confidence in nursing skills via simulation allows nurses to better care for their patients, indicating that simulation is a learning tool suitable for the nursing profession (Gaba, Howard, Fish, Smith, & Sowb, 2001). Confidence results from nurses practicing what they have learned in theory and transforming that theory into clinical practice. Nurses who practice deliberately seem to devote themselves to becoming experts in performing skills, which aids in building self-confidence. Strong confidence serves as a motivator for nurses to move beyond their comfort zone and take risks to become experts (Kaminski, 2010).

Simulation training is a strategy for transferring nurse practitioner competency from theoretical knowledge to clinical practice (Bambini, Washburn, & Perkins, 2009). Yuan, Williams, and Fang (2012) determined that when students received simulation training, immediate instructor feedback enabled the nurses to correct mistakes promptly and, in turn, supported personal self-confidence—a point also reported by Petani (2004).

Role of the DNP Student

I am an experienced nurse practicing at the organization where this study took place. My purpose in pursuing the Doctorate of Nursing Practice (DNP) was to develop the research and leadership skills I need to improve practice in my profession. The DNP represents the highest preparation of expertise in clinical nursing, with expectations to commit to a career in clinical practice (Ward-Smith, Peterson, & Kimble, 2014). In addition to improving my clinical skills, I hope to generate evidence that the organization can use to improve patient outcomes through safe, quality nursing care.

In my nursing career, I have had to develop Foley catheter insertion skills on my own due to a lack of training and practice opportunities. I have seen less experienced nurses improperly inserting the catheters, and I have observed the negative consequences of CAUTIs in many patients treated at the hospital where I work. This motivated me to complete this project to improve clinical practice, research, and develop policy. A DNP student must assist in determining gaps in evidence-based practice and design interventions of evidence-based practice. The DNP student should have leadership skills to assist in improving health care (Ward-Smith et al., 2014). This present DNP project is

an attempt to improve health care by demonstrating the utility of simulation training for Foley catheter insertion.

Because I work at the hospital, I knew most of the participants in this study personally. This could have led to biased evaluations, but I took care to follow the checklist objectively in my assessments. Another potential for bias is that the participants might have been careful to perform insertions correctly during preintervention demonstrations, because they may have feared consequences if they performed the insertions incorrectly. Therefore, their preintervention demonstrations might not reflect the state of their everyday practice. However, this potential for bias is not serious because the goal of the study was to determine whether the intervention improved practice, not to assess the state of nurses' daily practice.

Summary

Evidence supports the conclusion that 40% of clinicians do not use prevention measures to inhibit CAUTIs, which suggests the need for hospital administrators develop guidelines and protocols for aseptic insertion of Foley catheters. Additionally, existing literature suggests that hospital administrators should derive such guidelines from evidence-based practice, and that they should assess the competencies of health care practitioners involved in inserting Foley catheters annually (Oman et al., 2011). Nursing educators must also develop curricula that include assessments of clinical competencies and strategies to build nurse practitioner self-confidence to mitigate fears and anxiety levels resulting from limited skills, in addition to providing safe settings in which to

practice those skills. Simulation is a method of teaching that can aid in assessing competency and promoting clinical skills in a safe environment, thereby allowing nurses to obtain or improve their skills without exposing patients to harm. Benner's expert theory served as the framework for this study. The next section contains a description of the methodology of the study, which tested whether a simulation training intervention improved practicing nurses' Foley catheter insertion skills.

Section 3: Collection and Analysis of Evidence

Introduction

This research project addressed the problem of nursing practice that there is high rate of CAUTI among catheterized patients in hospital settings in the United States, in part because many health care professionals are not practicing aseptic Foley catheter insertion techniques. The purpose of this study was to determine if an educational intervention using simulation training and a skills checklist enhances proper aseptic techniques during catheter insertion among nurses practicing in a clinical setting.

Using Benner's novice-to-expert theory as a theoretical framework, I examined the effectiveness of an educational intervention that gives nurses an opportunity to practice inserting catheters using a part-task trainer. The literature review, presented in the previous section, showed that 40% of clinicians do not use prevention measures to inhibit CAUTIs (Medline, 2010). Additionally, existing literature suggests that hospital administrators should provide training and assess the competencies of health care practitioners involved in inserting Foley catheters annually (Oman et al., 2011). Simulation is a method of teaching that can aid in assessing competency and promoting clinical skills in a safe environment, thereby allowing nurses to obtain or improve their skills without exposing patients to harm.

This section contains a presentation of the methodology of the study. The section begins with a restatement of the project-focused question followed by a step-by-step

description of the method. I then describe the research instrument and data analysis procedures and conclude with a summary.

Project-Focused Question

CAUTIs can be costly—even fatal to patients with compromised immunity—and are preventable. According to one recent estimate, 40% of health care professionals are not practicing aseptic Foley catheter insertion techniques (Medline, 2010), contributing to the high rate of CAUTIs. Therefore, the purpose of this capstone project was to determine if an educational intervention using simulation training and a skills checklist enhances proper aseptic techniques during catheter insertion among nurses practicing in a clinical setting. The project-focused question was: Is there a difference in nurses' practice skills following an educational intervention involving aseptic Foley insertion?

Sources of Evidence

Participants

The sites of this quality improvement project were two colleges with nursing programs. Following IRB approval from Walden University (protocol number 07-20-17-0365339), I recruited a group of practicing nurses to participate in the project. The target population for this project was practicing nurses who were clinical instructors at a local college. Since these nurses interact with and educate nursing students in a clinical setting, I selected them as the population for this project. Based on anticipated interest, I estimated that 20 practicing nurses would participate in the project. The final sample size was 17. Section 4 contains a description of this discrepancy and its implications.

Procedures

I posted flyers in the nursing lounges and other common areas in order to attract interest. Interested participants responded by e-mailing me, whose e-mail address was on the flyer. I provided information regarding the date and time of the project to the participant in a return e-mail with my contact information.

Participants were asked to attend a one-hour educational session. At the start of the educational session, I explained the project to the participants. Each participant created a unique identifier for him/herself and completed a brief demographic survey (Appendix A). Following the completion of the demographic survey, each participant performed a catheter insertion demonstration using a part-task trainer simulator. I observed and evaluated each participant's technique using a standardized skills checklist (Appendix B) in which the participant wrote his/her unique identifier. Following the observation, the participants observed a demonstration of correct catheter insertion technique using the standardized skills list. Each participant then received a copy of the skills checklist and additional opportunities to practice the insertion using the skills checklist. After each participant had adequate opportunity to practice, each one performed a return demonstration of the catheter insertion technique using the standardized skills checklist, in which the participants wrote their unique identifiers. Following the completion of the participants' return demonstration, the educational intervention was completed. Each predemonstration checklist was matched with the appropriate postdemonstration checklist for analysis.

The 2015 Elsevier skills checklist is a 16-item instrument that measures urinary catheter insertion skills (Cooper & Gosnell, 2015). The instrument uses a 2-point scale with *satisfactory* or *unsatisfactory* responses. As an expert clinical nurse, I evaluated each participant and made the determination of *satisfactory* or *unsatisfactory* for each skill on the checklist. Moorthy, Munz, Sarker, and Darzi (2003) noted that the use of a checklist removes the subjectivity in the process of evaluation.

Protections

Since I did not collect any identifying data as part of the project, attendance and participation in the project served as a proxy and participants signed an informed consent. I used anonymous codes to identify and match participants' responses, and no one other than me had access to participants' identifying information. The research assured participants that their identities and performance scores would remain confidential, and that the results of this study could not affect their employment or education status. Participants were made aware that the data will be shared with the college and kept confidential and all data will be destroyed five years after the completion of the study.

Data Analysis and Synthesis

Frequencies and means were used to analyze the demographic data to describe the sample. Based on the nature of the independent and dependent variables, a paired *t* test was used to identify whether there was a difference in the rates of correct Foley catheter insertions skills before and after the educational session. Following the completion of the

analysis, recommendations were presented to the organization for feedback and implementation.

Summary

After obtaining IRB approval from Walden University, I recruited a group of clinical nursing practitioners from two colleges with nursing programs by posting a publicly visible flyer across the university campus. The nurses self-identified and volunteered to participate in the study. Each individual performed a catheter insertion using a part-task trainer simulator. Each participant underwent observation and assessment utilizing a standardized skill check list. Following the observation, the participants received instruction on the correct catheter insertion technique using the standardized skill list. Each participant had a further opportunity to practice the insertion using the skills checklist. After each participant had adequate opportunity to practice, each participant returned to provide a further demonstration of catheter insertion. Again, each participant underwent observation using the standardized skills checklist. Following the completion of the participants' return demonstration, the educational intervention was complete. Upon completion of the intervention, participants completed a demographic questionnaire. I matched each predemonstration checklist against the appropriate postdemonstration checklist for analysis. The following section presents the findings and recommendations for practice.

Section 4: Findings and Recommendations

Introduction

This study addressed the problem that 40% of health care professionals do not use evidence-based practices during Foley catheter insertion to prevent CAUTIs (Medline, 2010). There is a gap in practice because in order to develop the skills necessary to prevent CATUIs nurses need to receive appropriate training, and their catheter insertion skills need to be assessed annually (Oman et al., 2011). Simulation training can enable nurses to develop skills without exposing patients to harm, and repeated practice is necessary for nurses to advance to competency (Kaminski, 2010). Therefore, the purpose of this doctoral project was to determine if an educational intervention using a skills checklist enhances proper aseptic techniques during catheter insertion among nurses practicing in a clinical setting.

To address the research problem, I implemented an intervention to provide nurses with appropriate training in catheter insertion using a 16-item skills checklist. I assessed participants' proficiency with catheter insertion before and after the intervention to determine whether the intervention improved participants' use of aseptic techniques during catheter insertion. Using a 2-point scale (satisfactory, unsatisfactory), I assessed participants' skills. Then, I compared participants' performance before and after the intervention using frequencies and a paired *t* test . This section contains a presentation of the findings of the study, along with their implications and recommendations for practice.

Findings and Implications

Findings

The project-focused question for this research study was: Is there a difference in nurses' practice skills following an educational intervention involving aseptic Foley insertion? Based on this question, I developed the following hypotheses for quantitative analysis:

H_0: There is no difference in nurses' practice skills following an educational intervention involving aseptic Foley insertion.

H_a: There is a difference in nurses' practice skills following an educational intervention involving aseptic Foley insertion.

I estimated that the population size would be 20; however, the final sample size was 17. The reason for this discrepancy is that I planned to collect data across five campuses that have clinical nurses, but nurses from only four of the five campuses volunteered to participate. I sent out 37 e-mail invites, and 17 nurses volunteered to participate. No adverse events occurred during data collection or analysis.

Descriptive statistics. There were 16 participants after removing the data from one outlier (see the following subsection). Of these, most were female and were over 45 years of age. The highest percentage of the participants was Asian, followed by Latino/Hispanic and White/Caucasian. Table 1 summarizes the demographics of the sample.

Table 1

Sample Personal Demographics, n = 16

Variable	*n*	%
Gender		
Male	3	18.8%
Female	13	81.3%
Age		
25-34 years	2	12.5%
35-44 years	0	0.0%
45-54 years	5	16.9%
55-64 years	7	19.2%
65 years or older	2	11.4%
Ethnicity		
Asian	6	37.5%
Black / African American	1	6.3%
Latino / Hispanic	4	25.0%
White / Caucasian	3	18.8%
Multiple races	1	6.3%
Other	1	6.3%

With respect to professional education, the highest percentage of the participants hold bachelor's degrees, followed by master's degrees and other. The smallest percentage of the participants were high school graduates. The majority of the participants were licensed vocational nurses and the remaining participants were registered nurses. Table 2 summarizes the sample's professional demographics.

Table 2

Sample Professional Demographics, n = 16

Variable	*n*	%
Highest level of education completed		
High school graduate	3	18.7%
Bachelor's degree	5	31.3%
Master's degree	4	25.0%
Other	4	25.0%
License		
Registered nurse	5	31.3%
Licensed vocational nurse	11	68.7%

Statistical assumptions. In order to answer the research question, I conducted a paired *t* test to determine whether there was a statistically significant difference between the proportion of nurses who inserted catheters satisfactorily before and after the intervention. The paired *t* test assumes that the dependent variable is measured on an interval scale. For this study, the dependent variable was the score on the performance checklist, measured as a percentage of skills performed satisfactorily. This is an interval variable, supporting the assumption.

Additionally, the paired *t* test assumes that the independent variable consisted of two related groups. For this study, the independent variable was the test period (pretest vs. posttest). The before and after scores were linked by participant, so the scores are related, supporting the assumption.

The statistical test also assumes that there are no significant outliers in the

distribution of the differences in the independent variable. For this study, I used the outlier labeling rule (Hoaglin & Iglewicz, 1987) to determine whether there were any outliers. The formulas for determining the lower and upper limits for outliers to the distributions are:

$$\text{Lower limit} = Q1 - [(Q3 - Q1)*2.2] \quad (1)$$

$$\text{Upper limit} = Q3 + [(Q3 - Q1)*2.2] \quad (2)$$

According to this rule, values that fall outside of the lower and upper limits are outliers (Hoaglin & Iglewicz, 1987). The minimum value should be greater than the lower limit, and the maximum value should be less than the upper limit. When the rule was applied to the total sample (n = 17) there was one outlier (see Table 3). The maximum difference in pre- and posttest scores was greater than the upper limit. Therefore, this outlier was removed from the sample. After removing the single outlier, the maximum difference in the pre- and posttest scores was less than the upper limit, supporting the assumption.

Table 3

Outlier Tests for Difference between Pre and Post Scores on the Checklist (% correct)

Sample	Q1	Q3	LL	Min	UL	Max
Full sample, n = 17	5.56	12.96	-10.72	1.85	29.24	33.33*
Outlier omitted, n = 16	5.56	12.50	-9.71	1.85	27.77	24.07

Note. Q1 = 1st quartile; Q3 = 3rd quartile; LL = lower limit; UL = upper limit

* Maximum > upper limit, indicating outlier

Finally, the paired t test assumes that the distribution of the differences in the independent variable should be approximately normal. I used the Shapiro-Wilk test to

examine normality in the dataset. The Shapiro-Wilk tests the null hypothesis that the distribution is normal. The results of the test were insignificant (Table 4). Therefore, the null hypothesis that the distribution was normal could not be rejected, supporting the assumption of normality.

Table 4

Shapiro-Wilk Test for Normality, n =16

	Statistic	df	*p*
Difference	.916	16	.144

Based on the above considerations, the data supported all assumptions for the paired *t* test after the removal of the single outlier.

Hypothesis testing. The results of the paired *t* test were significant. Table 5 summarizes the result.

Table 5

T-*test Results for Pre/Post Test Differences in Checklist Scores, n = 16*

Test period	Descriptives		*t* test		
	M	*SD*	*t*	*p*	*d*[a]
Pretest	79.17%	5.83	7.04**	.000	.754
Posttest	88.77%	1.72			

[a]*d* = Cohen's *d* for effect size

* $p < .05$; ** $p < .01$

Because $p < .05$, I did not retain the null hypothesis. There was a significant difference between the participants' scores (measured as percent of correct skills on the skills checklist) from their pretest to their posttest. This result indicates that, after the intervention, there was an increase in the percentage of correct catheter insertion skills that participants performed satisfactorily. Of interest is the change in the standard deviation from the pretest to the posttest. The standard deviation was smaller for the posttest distribution, indicting that there was less spread in the scores on the posttest. The effect size ($d = .745$) indicates that there was a large effect. These findings suggest that the intervention improved and standardized the performance of Foley catheter insertion among the participants.

Implications

The research findings have implications for theory as well as for individual nurses, health care institutions, and the health care system. The theoretical framework for this study was Benner's novice-to-expert theory, described in detail in Section 2. Although Benner did not give specific techniques for nurses to advance through the stages of expertise, other scholars (Kaminski, 2010; Rhodes & Curran, 2005) have suggested that, using a part-task trainer, nurse practitioners can progress forward to higher skill levels. The results of this study suggest that, after completing the part-task trainer, participating nurses were able to perform Foley catheter insertions to a higher degree of competence. Although the educational intervention tested in this study addressed only a single task, rather than the whole range of nursing skills addressed by

the novice-to-expert theory, the results of the study support the theory by suggesting that, with training, practicing nurses can improve in their competence performing nursing skills. Even highly experienced, highly educated nurses may continue to have room for improvement as they progress in their careers. Therefore, the novice-to-expert theory appears to be appropriate from the perspective of nursing skill development.

At the individual level, this study implies that not all nurses have the knowledge they need to properly and confidently insert Foley catheters using aseptic techniques. Because the 1-hour educational intervention using the simulation task trainer resulted in a statistically significant improvement in performance, this study implies that there are gaps in nurses' skills that remain to be addressed. Readers should note, however, that the average score on the assessment was relatively high before the intervention. This indicates that nurses may be performing catheter insertion at an acceptable level. If the preintervention average had been lower, there may have been greater cause for concern regarding the current level of nurses' catheter insertion proficiency. However, the relatively high score suggests that, although there is room for improvement, most nurses are performing Foley catheter insertions at an acceptable level.

The statistical significance of the difference between the pre- and postintervention scores implies that there is room for improvement in nurses' skill level. Even more importantly, the visible drop in standard deviation implies that there was wide variation in nurses' scores before the intervention, and the intervention led to a more standardized practice, reflected by a smaller standard deviation. From the perspective of health care

institutions, this implies that even brief, inexpensive, one-hour training sessions using simulation part-task trainers can lead to important standardizations and improvements in nurses' catheter insertion performance.

From the perspective of the health care system in the United States, the findings of this study imply that more work is needed to ensure that nursing students are learning skills that conform to evidence-based practice guidelines like the one used in this study. Although the sample of the present study is not representative of all nurses in the United States (as discussed in a later subsection), this study implies that there may be a need to improve skills training within educational institutions, as well as skills revision and continued training on the job, if the incidence of CAUTIs is to be reduced. This conforms with findings suggesting that 40% of health care professionals do not use evidence-based practices to prevent CAUTIs during Foley catheter insertion (Medline, 2010).

Finally, this study has some implications for positive social change. Improper placement of Foley catheters can be dangerous and costly. Failed attempts may lead to infection and injury. This is an important area of focus because about 25% of patients hospitalized have a Foley catheter inserted, meaning that the risk of infection and injury is high. Repeated unsuccessful catheter insertion attempts may lead to the need for surgical urethral reconstruction (Willette & Coffield, 2011). For these reasons, improper catheter insertions may necessitate more complex care, invasive procedures, lengthier hospital stays, and increased costs of care. By demonstrating that a short, cost-effective intervention can improve and standardize Foley catheter insertion, this study contributes

to the potential to reduce costs of care, including the social burden of unnecessary health care costs related to CAUTIs and other catheter-related problems. If the incidence of CAUTIs can be improved using the intervention technique tested in this study, social change could result from the decreased disease burden following from CAUTIs. The next section contains recommendations for the individual, institutional, and system levels based on these implications.

Recommendations

In this study, a one-hour training in aseptic Foley catheter insertion resulted in better performance and more standardized practice among practicing nurses. This indicates that individual nurses can benefit from reviewing catheter insertion practices. Even in contexts where formal training is not available, nurses can consult the skills checklist in Appendix B (Cooper & Gosnell, 2015) to ensure that they are performing insertions accurately. This is important because CAUTIs are a major source of infection among hospitalized patients, and nurses can contribute to transmitting the infection if they do not use proper aseptic catheter insertion techniques (Oman et al., 2011). Therefore, in order to improve health outcomes among patients, all nurses should ensure that they are using the proper techniques.

Health care institutions have a responsibility to provide nurses with the appropriate skills training they need to progress through the stages of competency outlined in Benner's novice-to-expert theory (Kaminski, 2010). Part-task trainers are simulations that nurses can use to learn the skills they need to progress (Rhodes &

Curran, 2005). The results of this study showed that completing the part-task trainer improved nurses' competency and confidence in performing Foley catheter insertion. This supports the idea that simulation training can improve confidence (Gaba et al., 2001). Confidence is an important part of progressing through the novice-to-expert stages (Kaminski, 2010). Therefore, this study implies that hospitals and other health care organizations should provide nurses with part-task trainers to improve their Foley catheter insertion skills, standardize health care practice, reduce the risk of CAUTIs, and, ultimately, improve patient outcomes.

From a broader, system perspective, the finding of this study implies that the health care system in the United States is not providing nurses with the proper preparation and training they need to perform well on Foley catheter insertion tasks. According to the American Nurses Association (2014), not all nursing students learn all the skills they need. Furthermore, many experienced nurses graduated from nursing school decades ago, so the knowledge they gained in school may no longer conform to evidence-based practice guidelines (Forehand & Stanton, 2013; Sobeih & Nasr, 2014). This study suggested that nurses in the research sample did not possess all the information they needed to properly insert catheters using aseptic techniques. Therefore, this study implies that nursing curricula should ensure that all graduates are trained in the skills checklist related to catheter insertion to reduce the incidence of CAUTIs. Furthermore, health care guidelines could mandate skill revision and training using simulation part-task trainers in order to ensure that nurses across the United States are

using proper aseptic techniques for Foley catheter insertions.

To prevent CAUTI, it is imperative that hospitals implement and mandate the 2009 evidence-based practice (EBP) issued by the Healthcare Infection Control Practice Advisory Committee (HICPAC; Forehand & Stanton, 2013). If hospitals follow EBP guidelines, it is likely that CAUITIs can be reduced by 17%-69%, since nurses will have to follow hygiene procedures before and after inserting or manipulating a urinary catheter (Forehand & Stanton, 2013). Furthermore, hospital administrators need to ensure that only nurses who have had EBP training insert urinary catheters, provide nurses have the proper education, and measure nurses' skills regularly.

Strengths and Limitations of the Project

The major strength of this project is that it addressed a gap in practice related to Foley catheter insertion among practicing nurses. According to Forehand and Stanton (2013), following EBP guidelines could reduce CAUITIs by 17%-69%, but hospitals need easy and cost-effective ways of ensuring that nurses follow those guidelines. This study demonstrates that a one-hour educational intervention can lead to a statistically significant improvement in nurses' Foley catheter insertion skills.

Another strength of this project is that it revealed an unanticipated but interesting finding regarding the standardization of catheter insertion skills. After the intervention, there was a smaller standard deviation in nurses' scores on the assessment compared with before the intervention. This shows that the simulation training could standardize the

performance of catheter insertion and other nursing tasks, potentially improving patient outcomes.

In addition to these strengths, the project has some limitations that readers should consider when interpreting the results. Because I recruited voluntary participants using a convenience sampling method, the sample may not be representative of the entire population of nurses at the hospitals investigated, or of the population of nurses in the United States. Further research would be required to determine whether the results obtained in this study would apply to these broader populations.

Another limitation of this study is that nurses' Foley catheter insertion skills were only assessed immediately before and immediately after the intervention. As a result, it is not possible to draw conclusions about the long-term benefit (or lack thereof) of the educational intervention examined in this study. It is possible, for example, that nurses forgot what they learned in the intervention, or that they went back to their old habits after the training ended. Future research should follow up with nurses by assessing their catheter insertion skills after more time has passed. For example, results could be compared from immediately after the intervention, one week after the intervention, one month later, and one year later. Such research would help to determine whether the short, cost-effective simulation intervention is useful for improving catheter insertion techniques in the long term.

Furthermore, I also performed the pre- and postintervention assessments, introducing the possibility of bias in the results. I may have been unconsciously more

likely to give participants good scores on the postintervention assessments in order to achieve a significant result for her study. In order to mitigate this potential bias, I closely followed the guidelines given in the skills checklist, and I drew upon my experience and knowledge of Foley catheter insertion to remain objective during the assessments. However, it is impossible to completely exclude the possibility of bias. Future research should use an impartial third-party expert to assess participants in educational interventions like the one tested in this study.

Finally, this study did not attempt to link improvements in nurses' Foley catheter insertion skills with patient outcomes. Therefore, it is not certain that interventions like the one tested in this study would result in a decline in CAUTIs, despite the claim that using EBP guidelines could reduce CAUTI incidence (Forehand & Stanton, 2013). Thus, future research should examine patient outcomes, including CAUTI incidence, both before and after interventions like the one tested in this study, to verify that improving nurses' catheter insertion skills leads to better patient outcomes.

Section 5: Dissemination Plan

The results of this study should benefit the practicing nurses who are instructors at the two colleges examined in the study. Even the nurses who did not participate in this study may benefit from reading the study report and the checklist. Additionally, the managers at the two colleges and at the local hospitals where nursing instructors work could benefit from the recommendations in the previous section. Therefore, I will work to disseminate these findings to the institutions involved.

The plan for dissemination is to create an executive summary of the research to distribute via e-mail to nurses and managers at the institutions involved in this study. The executive summary will be no longer than five pages and includes a description of the purpose of the study, the methods of the study, the study results and their implications, and the recommendations for practice. I use nontechnical language that those unfamiliar with Foley catheter insertion can understand. Additionally, I present the summary using bulleted lists in order to make the information easy to assimilate.

Because some readers may wish to follow up on the executive summary by reading the full research report, I also plan to make the research report available, by request, to anyone who receives a copy of the executive summary. Furthermore, I will publish the research report with ProQuest Theses and Dissertations so that it will be available to anyone with an institutional subscription to the dissertation indexing service.

In addition to the individuals associated with the institutions in this study, managers of health care institutions and practicing nurses across the United States could

benefit from reading the results of this study. Furthermore, nursing researchers could benefit from these results and their implications for future research. Therefore, I may use this research report as the basis for future publications, such as an academic journal article, a magazine article, or a blog post. Such publications will allow me to disseminate the results of this study more broadly so that anyone in the nursing profession can access the results.

Analysis of Self

The process of completing this DNP project was eye opening for me. I pursued a doctoral degree in order to further my nursing career, and through conducting this project I found that my knowledge and experience can be used to create research studies that serve as a source of evidence, not only for my own practice, but for the nursing profession as a whole. Through my years of experience, I have found that aseptic techniques in catheter insertion and in other nursing tasks are crucial but are often overlooked by practicing nurses. Through conducing this study, I found evidence that inspires and motivates me to continue pursuing this idea, generating further research to help improve the nursing profession. By completing this project, I have learned to be a scholar.

Learning to be a scholar was not an easy matter, and the research process has been both difficult and rewarding. Among the greatest challenges I faced was convincing others to get involved and understanding how to transform the evidence I collected into meaningful result and recommendations. My instructors and advisors helped me along

the way, and I found that my professional relationships and longstanding connections were invaluable in getting things done. These insights increased my gratitude for the people around me and gave me a newfound understanding of the importance of building connections within the nursing profession.

I also found this project gratifying in the sense that participants appeared to have benefitted directly from my work. Here were some of the comments I received from the participants in the study:

- Thank you, I needed this.
- I was going to cancel and not come this morning, but I said, no, this will benefit me and my students, so I am glad I did. I kind of knew I was doing it right but now I can feel I am.
- This evaluation showed me what I needed to work on.
- This was so much fun learning.
- I knew what I did wrong the first time, but after watching you and having a chance to correct my mistake, I feel much better. I will practice this at home,
- I would like to see this at our college.

These comments showed me that my work was meaningful at a personal level for the participants involved in the study, spurring me to continue my research work in the future.

My future goals involve both nursing practice and research. Unlike when I began my doctoral studies, I now have the knowledge and confidence I need to conduct empirical research to investigate the best, most cost-effective ways to improve nursing practice, generating better outcomes for patients. The nursing profession is about caring for people. Many nurses know how to care for people, and they see that things could be better, but they do not know how to advocate for change at a management level using empirical evidence. For me, this is the greatest skill I learned through the DNP process. I now know how to take my experience, knowledge, and intuition and turn them into research studies that can provide the evidence that health care managers need to make changes for the better within the health care institutions they manage. Over the long term, I hope to identify more opportunities to conduct research and to use the results of that research to improve my patient-focused change advocacy.

Summary

Among practicing nurses in hospital settings, catheter insertion is a common task. It is so common that nurses may take it for granted. They may come to view it as easy, routine, and unproblematic. However, research shows that catheter insertion is anything but unproblematic. Improper insertion has potentially dire consequences, notably CAUTIs. In many cases, these potentially costly infections—the complications of which can even be fatal to patients with compromised immunity—are preventable. With 40% of nurses performing this task inadequately, there is an urgent need for education and change.

This study demonstrated that proper, aseptic Foley catheter insertion can be taught quickly and affordably. Simulation part-task trainers can impart nurses with the knowledge they need to perform insertions correctly, and, in this study, completing the training took only one hour, including pre- and postintervention assessments. Hospitals need to provide nurses with this training in order to make sure that all nurses are performing catheter insertions correctly, and that practice is standardized. Although this study had a small sample size, it shows that this training technique can work to improve nurses' scores on catheter insertion assessments and to reduce variation in how well they perform the task. I urge nurses and managers to continue researching this type of intervention and to swiftly implement training that will improve patient outcomes, reduce health care costs, and, potentially, save lives.

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Appendix A: Demographic Survey Questions

Demographic Survey Questions

Unique ID:

1. What is your gender?

❑ Male

❑ Female

2. What is your age?

❑ Under 18 years

❑ 18 to 24 years

❑ 25 to 34 years

❑ 35 to 44 years

❑ 45 to 54 years

❑ 55 to 64 years

❑ 65 or older

3. What is your race?

❑ American Indian or Alaskan Native

❑ Asian

❑ Black or African-American

❑ Latino or Hispanic

❑ Native Hawaiian or other Pacific Islander

❑ White/Caucasian

❑ From multiple races

❑ Other

4. **What is the highest level of education you have completed?**

❑ High School Graduate

❑ Bachelor's degree

❑ Master's degree

❑ Ph.D., law or medical degree

❑ Other

5. **Are you a Registered Nurse (RN) or Licensed Vocational Nurse (LVN)?**

❑ Registered Nurse

❑Licensed Vocational Nurse

Appendix B: Skills Checklist

Student Name_____ Date_____ Instructor's name_____

PERFORMANCE CHECKLIST 18-4

PERINEAL CARE: MALE AND FEMALE AND THE CATHETERIZED PATIENT

	S	U	Comments
Prepare for procedure			
1. Refer to medical record, care plan, or Kardex	❑	❑	_____
2. Assemble supplies and complete necessary charges			
a. Perineal care (uncatheterized patient)	❑	❑	_____
b. Perineal care (catheterized patient)	❑	❑	_____
3. Introduce self	❑	❑	_____
4. Identify patient	❑	❑	_____
5. Explain procedure	❑	❑	_____
6. Perform hand hygiene and don gloves to assess patient for			
a. Accumulated secretions	❑	❑	_____
b. Surgical incision	❑	❑	_____
c. Lesions	❑	❑	_____
d. Ability to perform self-care	❑	❑	_____
e. Extent of care required by patient	❑	❑	_____
f. Knowledge of importance of perineal care	❑	❑	_____
7. Remove gloves, discard appropriately	❑	❑	_____
8. Prepare patient for intervention			
a. Close door/pull privacy curtain	❑	❑	_____
b. Raise bed to comfortable working height and lower side rail	❑	❑	_____
c. Arrange supplies at bedside	❑	❑	_____
d. OB patients are allowed to perform this procedure by themselves while sitting on the stool by using a plastic squeeze bottle	❑	❑	_____

Performance Checklist 18-4—Perineal Care: Male and Female and the Catheterized Patient *(cont'd)*

	S	U	Comments
e. Patients allowed tub/shower baths will do this by themselves; make certain supplies are close by			
(1) Assist patient to desired position in bed, supine for males or dorsal recumbent for females	❑	❑	_____
(2) Drape for procedure	❑	❑	_____
(3) When perineal care is given other than routinely during the bath, the nurse will need to fill the perineal bottle (peribottle) with cleansing solution and position the patient on the bedpan in bed	❑	❑	_____
9. Perform hand hygiene and don clean gloves	❑	❑	_____
10. Female perineal care			
a. Raise side rail and fill basin two-thirds full of water at correct temperature	❑	❑	_____
b. Position patient in bed with knees aligned and slightly abducted, with waterproof pad/towel under buttocks; drape for privacy	❑	❑	_____
c. Using a disposable wash cloth wrapped around one hand, wash and dry patient's upper thighs	❑	❑	_____
d. Wash both labia majora and labia minora; cleanse in direction anterior to posterior; use separate corner of wash cloth for each skin fold	❑	❑	_____
e. Separate labia to expose the urinary meatus and vaginal orifice; wash downward toward rectum with smooth strokes; use separate corner of wash cloth for each smooth stroke	❑	❑	_____
f. Cleanse, rinse, and dry thoroughly (if patient is on bedpan and peribottle is used, direct flow of cleansing solution down over perineal area and dry thoroughly)	❑	❑	_____
g. Assist patient to side-lying position and cleanse rectal area with toilet tissue; wash area by cleansing from perineal area toward anus (several wash cloths may be needed). (Many facilitates have disposable wipes; if so, use them.) Wash, rinse, and dry thoroughly	❑	❑	_____

Student Name_____ Date_____ Instructor's name_____

	S	U	Comments
11. Male perineal care			
a. Raise side rail, fill basin two-thirds full of water at the correct temperature, and position patient supine in bed	❑	❑	_____
b. Gently grasp shaft of penis; retract foreskin of uncircumcised patient	❑	❑	_____
c. Wash tip of penis with circular motion	❑	❑	_____
d. Cleanse from meatus outward; two wash cloths may be necessary; wash, rinse, and dry gently	❑	❑	_____
e. Replace foreskin, and wash shaft of penis with a firm but gentle downward stroke	❑	❑	_____
f. Rinse and dry thoroughly	❑	❑	_____
g. Cleanse scrotum gently; cleanse carefully in underlying skin folds; rinse and dry gently	❑	❑	_____
h. Assist patient to a side-lying position; cleanse anal area; follow step g of female perineal care	❑	❑	_____
12. Catheter care			
a. Raise side rail and fill basin two-thirds full of water at the correct temperature	❑	❑	_____
b. Position and drape the female patient in bed, supine as described in step 11	❑	❑	_____
c. Cleanse around urethral meatus and adjacent catheter; cleanse entire catheter with soap and water	❑	❑	_____
d. Repeat cleansing to remove all exudate from meatus and catheter	❑	❑	_____
e. If ointment is ordered, open package of sterile cotton-tipped applicators; do not touch cotton tip; apply ointment to applicator; do not touch wrapper to cotton tip	❑	❑	_____
f. Apply ointment to junction of catheter and urethral meatus	❑	❑	_____
13. Remove gloves; clean and store equipment; dispose of contaminated supplies in proper receptacle; perform hand hygiene	❑	❑	_____
14. Position patient for comfort	❑	❑	_____

Performance Checklist 18-4—Perineal Care: Male and Female and the Catheterized Patient *(cont'd)*

	S	U	Comments
15. Document			
a. Procedure	❑	❑	_____
b. Pertinent observations such as			
(1) Character and amount of discharge and odor if present	❑	❑	_____
(2) Condition of genitalia	❑	❑	_____
(3) Patient's ability to perform own care	❑	❑	_____
(4) Patient teaching	❑	❑	_____
16. Report abnormal findings to nurse in charge or physician	❑	❑	_____