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Nurse Education and the Reduction of Nosocomial Infections in Acute Care Settings

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Walden University

College of Health Sciences

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Charmaine Byrd

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Walden University

2016

Abstract

Nurse Education and the Reduction of Nosocomial Infections in Acute Care Settings

by

Charmaine Byrd

MS, Walden University, 2013

BS, Kaplan University, 2011

Project Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Nursing Practice

Walden University

November 2016

Abstract

Nosocomial infections are acquired in health care settings and they can lead to catastrophic health care consequences for patients. These infections can also pose significant financial burdens on society and health care systems. Educating nurses on hand hygiene is essential to reducing infection rates. The research question for the study examined the effectiveness of hand hygiene among nurses in reduction of nosocomial infections and how can health care organizations develop educational strategies to reduce nosocomial infections to improve public confidence in health care systems. The purpose of this study was to educate nurses on how to reduce the incidence of nosocomial infections. The evidence-based practice model for this project was Florence Nightingale's environmental theory. The health belief model was used to identify the reasons for health care culture and how they inspire change. In this study, 2 licensed practical nurses and 2 registered nurses were educated on how to reduce nosocomial infections in acute care settings. Participants then completed a questionnaire to assess their knowledge of hand hygiene as a means of reducing nosocomial infections when caring for patients. All participants agreed that hand hygiene; reduces the risk of contracting a nosocomial infection, suggesting that the incidence of nosocomial infections within acute care settings maybe reduced through this education. This project has potential positive social change by educating first and second year nursing students on the importance of hand hygiene in reduction of nosocomial infections and preventing patients from sustaining further injuries while admitted in acute care settings.

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Dedication

To my sons Shonar and Daneill Brown without your presence in my life this accomplishment would not be possible. Shonar, in memoriam you left fingerprints of grace on our lives you are sadly missed.

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I would like to thank Dr. Witford Reid and his staff for allowing me to complete both my practicum and field experience in their practice. Dr. Reid thanks for the daily encouragement you have given me calling or texting me to make sure I am doing well I cannot thank you enough for simply caring. Thanks to my friend and colleague Ms. Myrtle Williams for encouraging me when I am feeling defeated. To Cathy Haynes, my former supervisor, you have always believed in me. You have told me “I know you can do it,” and you believed in me when no one else did. I remember quite vividly the day I asked for your opinion on attending nursing college for the second time after experiencing a personal loss. I can still hear you saying “I know you can do it.”

Thank you very much, Dr. Leach, for challenging my scholarly thinking even on the days when I was discouraged and when my thinking capacity seemed diminished.

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Section 1: Nature of the Project

Introduction

Nosocomial infections, or hospital acquired infections as they are commonly known are a challenge to health care organizations globally. Nosocomial infections are contracted by patients while admitted to a hospital for 48 hours or longer. In 2014, approximately 722,000 U.S. patients were infected with a nosocomial infection while admitted in the acute care settings, and 75,000 died as a result. (Centers for Disease Control and Prevention [CDC], (2016). According to Jacoby and De Angelis (2014), nosocomial infections are normally spread by health care staff members and who have poor hand hygiene. According to Peleg and Hooper (2010), nosocomial infections were the sixth leading cause of death in the United States in 2002. Incidence rates are projected to increase, given the aging of many populations and a rise in the number of patients with comorbidities and compromised immune system. Health care organizations have launched several initiatives in an attempt to reduce nosocomial infections. According to Fox et al., (2015), hand hygiene is essential to reduce nosocomial infections. For nurses use their hands extensively to provide care therefore, hand hygiene is particularly important to reduce the risk of contracting nosocomial infections.

The propose of this project is to provide education on the importance of hand hygiene to reduce the incidence of nosocomial infections. The implications for positive social change are to decrease health care cost, improve patient outcomes, ease the financial burdens on society, and improve quality of care.

Problem Statement

The problem addressed in the project is to provide education about nosocomial infections reduction to nurses in the acute care settings. Nosocomial infections account for a high number of preventable deaths annually. According to Fox et al. (2015), nosocomial infections account for an estimated 90,000 preventable deaths on an annual basis. According to Vandijck, Labeau, Vogelaers and Blot (2010), the global incidence of these infections has been high for several decades. Current research has supported the appropriateness of hand hygiene in reducing nosocomial infections in the health care settings. Researchers in various health care fields have examined the complications of nosocomial infections. These Nosocomial infections also posed financial burdens for US health care systems. According to Edmiston Jr, and Spencer (2014), nosocomial infections cost US healthcare organizations approximately \$9.8 billion every year. It is the responsibility of all nurses to identify evidence-based strategies that to reduce the spread of these harmful infections. According to Ford, Boyer, Menachemi, and Huerta (2014), Researchers have found that Hand hygiene is the most effective but underused health care intervention for reducing nosocomial infections.

Purpose Statement

Nosocomial infections are of global concern. They particularly affect older adults and people with compromised immune systems. According to Hinduja et al., (2015), nosocomial infections are a significant threat to positive patient outcomes.

There is an increased in lengthy hospital stays, high healthcare costs, adverse patient outcomes, and increases in morbidity and mortality rates. The reason for this paper is to address evidence-based strategies to reduce nosocomial infections in the acute care setting. Hand hygiene reduce the risk of contracting nosocomial infections and contribute to positive patient outcomes. According to Vandijck, Labeau, Vogelaers and Blot (2010), health care professional's compliance with hand hygiene is crucial to reducing nosocomial infections in patient care settings.

The project focused on hand hygiene measures to reduce nosocomial infections in acute care settings. The project attempts to do the following:

1. Gather questionnaire information upon the completion of hand hygiene education.
2. Summarize findings to reveal the themes related hand hygiene education.
3. Propose measures in improve hand hygiene among nurses.
4. Identify significance of themes to translate into hand hygiene reduction.

I sought to answer two questions: Does hand hygiene among nurses reduce nosocomial infections? How can healthcare organizations develop educational strategies to reduce nosocomial infections and improve public confidence in healthcare systems?

Significance

Despite evidence-based literature on nosocomial infection reduction, the number of patients who are diagnosed with these infections continues to increase yearly. According to Fox et al., (2015), approximately 2.5 million patients are infected with a nosocomial infection during hospitalization. Pertinent patient education that is needed to improve patient's awareness of nosocomial infections is limited. According to Kaye et al., (2014), use information evidence-based literatures to education patients on the severity of nosocomial infections and the importance of asking nurses to wash their hands before providing care.

Several states have passed legislation mandating public reporting of nosocomial infections incidence in the health care settings. Members of the public can access information on nosocomial infection statistics. According to Healthy People 2020 (2014), use of appropriate preventive practices can reduce associated infections by 70% resulting in a saving of \$31.5 billion in healthcare costs. Nosocomial infections impose significant financial hardship on health care systems that is in turn passed on to consumers in increased health care cost. According to the (Centers for Disease Control and Prevention [CDC], (2015), the socioeconomic impact of nosocomial infections is related to increased health care costs. Providing adequate information to the public can improve understanding and reduction of nosocomial infections.

In this project study, I present the possible implementation to formulate social change by enhancing the importance of hand hygiene information for nurses before and after providing patient care to reduce nosocomial infections.

Optimizing nurse's knowledge, awareness, and understanding can positively impact societal impression. According to White and Dudley-Brown (2012), improving nurse's knowledge of hand hygiene is imperative to positive patient outcomes.

Providing effective patient education empowers patients to become their own advocates, and patients can hold nurses accountable by asking them to wash their hands before providing care. Patients and visitors are asked to wash their hand regularly especially before eating and after using the bathroom to reduce the spread of harmful bacteria.

According to Hinduja et al., (2015), patient education and empowerment are keys to the reduction of nosocomial infections.

Assumptions

The doctor of nursing practice (DNP) proposal holds assumptions that may re-emphasize the problem of nosocomial infections within the acute care setting giving to further examination. These assumptions were:

Patients are unaware of nosocomial infections prior to being admitted to the acute care setting (Centers for Disease Control and Prevention [CDC], (2015).

- Good aseptic technique reduces the incidence of nosocomial infections (Centers for Disease Control and Prevention [CDC], (2015).
- In facilities where nurses have received assertiveness training nosocomial infections incidence are lower than facilities where nurses do not receive the same training (Centers for Disease Control and Prevention [CDC], (2015).

- Nosocomial infections are difficult to diagnose (Centers for Disease Control and Prevention [CDC], (2015).
- Nurses cause nosocomial infections (Centers for Disease Control and Prevention [CDC], (2015).
- All immunocompromised patients have a nosocomial infection (Centers for Disease Control and Prevention [CDC], (2015).

Scope of Delimitations

During this DNP project, hand hygiene will be targeted as a means to reduce the incidence of nosocomial infections. Therefore, the purpose is to identify a sample pool of respondents of registered nurses (RN) and licensed practical nurses (LPN) are eligible to participate in the study.

Limitations

The result for this project proposal obtained information from registered nurses (RN) and licensed practical nurses (LPN) in the acute care setting concerning their insight on nosocomial infections and the effects of hand hygiene. Information will be retrieved from nurses in the acute care setting who are involved in direct patient care. The sample size is relatively small affecting the finding of the sample in comparison to the patient population of the practice area. Possible weaknesses may be discovered in the investigation tools.

Hand hygiene is beneficial to the nurses it reduces the likely hood of transmitting harmful infections to the patients. The information obtained will be useful in creating interventions to promote awareness of nosocomial infection reduction.

Summary

Reducing the rate of nosocomial infections is a daunting task for healthcare organizations globally. According to (Centers for Disease Control and Prevention [CDC], (2015), nosocomial infections are a threat to patient safety worldwide. In the practice where the project study was conducted, there are over 500 patients two registered nurses (RN) and two licensed practical nurses (LPN). The RNs and the LPNs are educated on effective hand hygiene to reduce nosocomial infections. Researchers have found that hand hygiene can reduce nosocomial infection rates. However, the continuing high incidence of these infections suggest that much work needs to be done to address this issue.

Section 2 contains a review of scholarly evidence on hand hygiene to reduce the incidence of nosocomial infections. This section also addresses the impact of hand hygiene in the reduction of nosocomial infections.

Section 2: Background and Context

The problem addressed in the project was to provide education about nosocomial infections reduction to nurses in the acute care settings.

Nosocomial infections account for a high number of preventable deaths annually.

According to Fox et al. (2015), nosocomial infections account for an estimated 90,000 preventable deaths on an annual basis. I sought to answer two questions: Does hand hygiene among nurses reduce nosocomial infections? How can healthcare organizations develop educational strategies to reduce nosocomial infections and improve public confidence in healthcare systems?

The purpose of this project study was to formulate a discussion that investigates nurses' response on hand hygiene education. Nurses are responsible for maintaining patient safety, to develop a trusting relationship and increased satisfaction among patients.

Patient safety is an important aspect to health care reimbursement.

According to (Centers for Medicare & Medicaid Services [CMS], 2015), since October 1, 2008, Medicare have discontinued payment on selected infections acquired in the health care settings under the Modernization Act of 2003 and the Deficit Reduction Act of 2005 respectively.

The evidence-based practice model for this project is the Florence Nightingale “environmental theory” reducing the risk of nosocomial infections by providing proper hand hygiene will change the face of nursing and patient care.

According to McDonald (2013), Florence Nightingale called upon nurses to maintain a clean and safe health care environment to promote healing.

Concepts, Models, and Theories

The evidence-based practice model for this project Florence Nightingale's "environmental theory." According to McDonald (2013), Nightingale called upon nurses to maintain a clean and safe health care environment to promote patients' healing. Proper hand hygiene is the most important aspects of the environment that reduces the risk of contracting a nosocomial infection. The health belief model is a fitting framework that was used to identify the reasons for health care culture and how they inspire changes. According to Ahadzadeh, to Fox et al., (2015), people's belief of them contracting a disease will make them want to take steps to change their behaviors towards hand hygiene. Health care providers have a responsibility to provide effective patient education to improve their health outcomes. According to Dorresteijn (2014), health care providers strive to change patient's behaviors, promote healthy lifestyles, and improve self-care. According to Lopez (2013), there are four premises to the health belief model:

- *perceived susceptibility* and *perceived severity*: Nurses are susceptible to nosocomial infections they take precautionary measures to reduce the prevalence of nosocomial infections. Nurses are responsible for the health of their family members, reducing the risk of transmitting a nosocomial infection to their family.
- *perceived benefits* and *perceived barriers*: Adopting an effective hand hygiene behavior outweighs the risk of contracting a nosocomial infection. Hand hygiene gives nurses a reason to engage in this new behavior and the potential consequences if they do not adhere to the new behavior.

Nurses are responsible for identifying barriers that prevents them from protecting themselves and patients alike. The health belief model was the basis for the questionnaire to solicit information on nurse's perception on nosocomial infections.

Relevance to Nursing Practice

According to Lazarevic, Stojanovic, Bogdanovic and Dolicanin (2013), proper hand hygiene techniques can reduce the risk of nosocomial infections, which have been found to diminish the quality of patient outcomes and responses to treatment. To reduce nosocomial infections, proper hand hygiene techniques must be performed before and after each patient care procedure in health care settings.

Summary

The background and context related hand hygiene practice gap has I identified the need to address this practice concern. Hand hygiene education and organizational structures contribute to this widening gap due to the different levels of expectations and preferred methods of hand hygiene. In the educational and evaluation project were to provide education and questions to nurses to reduce the incidence of nosocomial infections in the acute care settings. Section 3 describes the methods of data collection that occurred in the project to address nosocomial infection reduction in the acute care settings. A quantitative approach for linking theory to practice was used. The measures of data collection, evaluation, and analysis are discussed in order to structure the project.

Section 3: Design and Methodology

Project Design and Methods

The problem addressed in the project was to provide education about nosocomial infections reduction to nurses in the acute care settings. Nosocomial infections account for a high number of preventable deaths annually. This project sought to educate and investigate nurse's response to nosocomial infections reduction in acute care settings.

Practice-Focused Questions

I sought to answer two questions: Does hand hygiene among nurses reduce nosocomial infections? How can healthcare organizations develop educational strategies to reduce nosocomial infections and improve public confidence in healthcare systems?

Definition of Terms

The following italicized words or phrases have been defined for this DNP project.

Nosocomial Infections- are infections that an individual contract while admitted to the health care setting for 24 to 48 hours or longer. According to Ott, et al., (2013).

Health care providers- A licensed professional member of the healthcare team, namely a registered nurse (RN), an advanced practice registered nurse (APRN), a medical doctor (MD), and doctor of osteopathy (DO), these professionals are aware of the efforts to reduce nosocomial infections incidence in the acute care setting. According to Parker et al., (2014).

Hand hygiene- Is the act of cleaning one's hands with soap, water and or other liquids to remove soils and or microorganisms. According to Fox, Wavra et al., (2015).

Acute care setting- where patients receive short-term care and treatments for complex illnesses, injuries, and surgeries. According to Kaye, Marchaim et al., (2014).

Viruses- Is a microorganism that can only replicate inside of a host and can infect all living things. According to (Centers for Disease Control and Prevention [CDC], (2015).

Pathogens- Is anything that can cause a disease that includes bacterium, viruses, and or other microorganisms. According to (Centers for Disease Control and Prevention [CDC], (2015).

Sources of Evidence

Specific literature

A systematic investigation of literature was executed utilizing CINAHL, ProQuest, PubMed, Medline, and Cochrane Database of systematic reviews. These search engines were navigated using terms such as “Nosocomial infections”, “hand hygiene”, “hospital acquired infections”, “cross infections”, “hand sanitizers”, and “hand washing.” These literary investigations have disclosed information that supported the theoretical foundation of this investigation. Evidence have suggested frequent hand hygiene is the single best approach available to reduce nosocomial infections.

A quantitative analytic method was employed to promote this project since the quantitative method can be utilized to securitize an individual or a group.

According to Terry (2015), the quantitative research method is focused on a population and search to examine positive patient outcomes. A quantitative method was used to investigate two (2) registered nurses (RN), Two (2) licensed practical nurses (LPN).

A quantitative and descriptive data collect method was utilized to provide concrete variables the topic of educating nurses on the reduction of nosocomial infections in the acute care settings. This design was used to investigate a specific population to see if a modeled behavior can be changed by educating nurses on the importance of hand hygiene in the reduction of nosocomial infections.

The project measures two RNs, and two LPNs hand hygiene before and after each patient contact.

Population and Sampling

The population used in this DNP project was composed of 2 RNs, and 2 LPNs who participated in hand hygiene education and answered questions on hand hygiene. The inclusion criteria were for nurses performing hand hygiene when providing patient care: whether these nurses utilized soap and water or alcohol-based sanitizer was used before and after patient care. The exclusion criteria for the project was activities that did not include hand hygiene.

Data Collection

Participants were informed that the questionnaire did not contain any personal identifiers, and that results of the questionnaire would be kept confidential.

The questionnaire is in alignment with the Chania et al., (2013), survey that is related to the health belief model. Listed the variables and acknowledgments with a Likert scale that solicited response from Strongly agree, Agree, Disagree, and Strongly disagree. The other section includes the demographic characteristics of the participants. Table 1 lists the categories that form the health belief model.

Table 1. Statements from the Health Belief Model.

Variables	Statements
Susceptibility	I worry about getting/give patient nosocomial infection.
Seriousness	My actions will cause a patient to get a nosocomial infection.
Benefits	Hand hygiene can reduce the risk of getting a nosocomial infection. I will improve hand hygiene techniques.
Barriers	Frequent hand washing dries the skin. Alcohol based products dries the skin.

Table 2 list the characteristics to be measured

Table 2 Demographic characteristics of the sample

Characteristics	Number	%
2 Registered Nurses (RN)		
2 Licensed Practical Nurses (LPN)		

Data Analysis

The data analysis will conclude frequent hand hygiene reduces the risk of contracting a nosocomial infection. The questionnaire is to determine if nurses will make an effort to utilize hand hygiene to keep themselves and the patients safety. According to Papagiannopoulou et al., (2013), Likert scale that contain a response from Strongly agree, Agree, Disagree, and Strongly disagree. According to Papagiannopoulou et al., (2013), a multivariate calculates model used to analyze independent outcomes of 100% of the subjects choosing strongly agree or agree to the questionnaire.

Project Evaluation Plan

According to Kettner, Moroney and Martin (2013), the project evaluation provides an accurate insight to all stakeholders involved in the project.

An ongoing assessment of the project is required to evaluate the failure or success of hand hygiene in the acute care setting for nurses this will provide an opportunity to assess nurses and patient's satisfaction.

To evaluating the value of the project to health care and the community as a whole.

According to Parker et al., (2014), stakeholders' engagement is significant to the evaluation process to elicit failure or success of the project. Including an impact map to address the focal points to ameliorate the problem and strategies to correct or changes to benefit patients who are at risk of contracting a nosocomial infection.

Figure 1, list the characteristics of Impact map

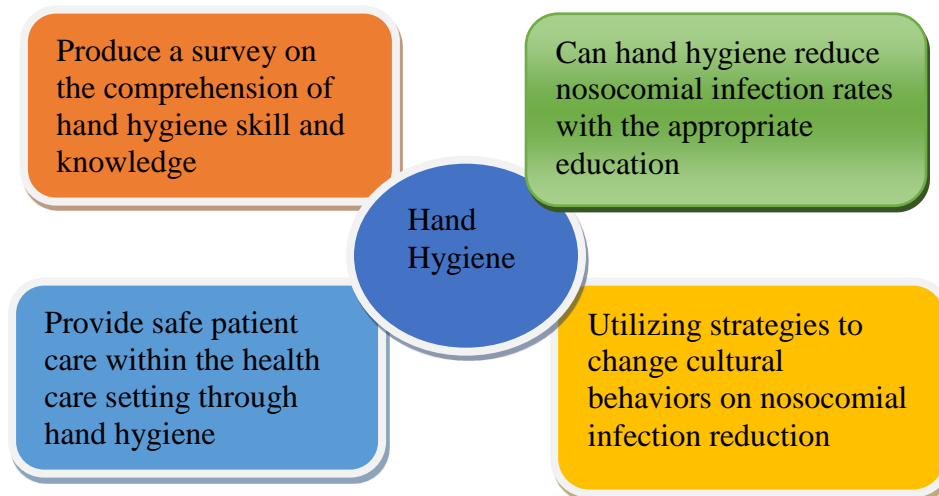


Figure 1 Impact Map

Summary

The reduction of nosocomial infections in the acute care setting and increase hand hygiene among nurses. Reducing the current nosocomial infection rate is essential to healthcare cost, the length of hospital stay, mortality, and morbidity rates would be beneficial to healthcare systems nationwide. According to Edmiston Jr, and Spencer (2014), nosocomial infections cost the United States healthcare systems approximately \$9.8 billion annually.

According to Healthy people 2020 (2014), through education the US health care systems can reduce cost by an estimated \$31.5 billion in regards to nosocomial infections. Reducing nosocomial infections can improve the socio-economic status of patients this would reduce length of hospital stay, improve the quality of life and the likely hood for patients to return to previous employment earlier.

Section 4: Findings, and Recommendations

There is a need to understand the importance of hand hygiene in the reduction of nosocomial infections. A descriptive and quantitative study was used to collect data and questionnaire response to guide hand hygiene practice to reduce nosocomial infections. This section addresses the findings of the questionnaire.

Findings and Implication

Nosocomial infections are a persistent challenge for health care organizations and the patient population as a whole. According to Dasgupta, Das, Chawan, and Hazra, (2015), nosocomial infections are defined as infections that do not exist during the initial 24-48 hours of hospital admission. I drew from the health belief model as part of my efforts to educate nurse's on hand hygiene techniques and how noncompliance of hand hygiene can greatly jeopardize positive patient outcomes. Evidence-based literatures were used to reinforce the information provided in both the premise and the proposal of this project was serve as a means of education for the nurses in the study. A numerical data collection approach was utilized for a quantitative study through the distribution of a questionnaire via hard copy to participants to complete the questions from 1 to 10, answer options ranging from strongly agree, agree, strongly disagree and disagree. Respondents of the study responded strongly agree on all questions except for two agree responses all four respondents completed the questionnaire.

The objectives of this project were to increase hand hygiene among nurses. Providing hand hygiene education for nurses who work in acute care settings. Educating nurses on strategies that will highlight the health care consequences for deviating from hand hygiene standards that were employed to reduce nosocomial infections. According to Canham (2016), using effective hand hygiene will, reduce the incidence of nosocomial infections. Completion of the project through data collection, analysis, the project objectives were met.

Implications of the project include improving patient outcomes, reducing nosocomial infection incidence, and increasing nursing staff knowledge on nosocomial infection reduction and the negative health care consequences. Such as, prolonged primary diagnosis and increased health care cost. Nosocomial infections affect people from all socioeconomic backgrounds; hand hygiene decrease the risk for further injuries to the patient while admitted in the acute care settings. An effective hand hygiene strategy may reduce health care cost. According to Fox et al., (2015), global hand hygiene compliance initiatives have led to an individual hospital savings of \$2.5 million yearly.

Recommendations

Changing the culture on hand hygiene through education instead of punitive strategies. Provide nurses with the most recent hand hygiene standards and how the consequences of deviating from these standards can negatively impact health care organizations. Provide most recent hand hygiene education and strategies to nursing staff as soon as they become available.

Strengths and Limitations of the Project

The strengths of this project lies in the attempt to improve hand hygiene compliance through education. Utilization of a quantitative study and descriptive analysis used to analyze the data from the questionnaire and to report the results.

The information obtained were used in creating interventions to promote awareness of nosocomial infections reduction. Also, the willingness and quick response of the participants in completing the questionnaire.

The weakness of the project was the small sample size of four nurses.

Summary

Implications of this project are to bring awareness to nosocomial infections and the positive impact of hand hygiene compliance through education. This project could be conducted on a large population if permitted. This project was influenced by positive social change and reducing nosocomial infections through hand hygiene education.

Section 5: Dissemination Plan

Plans for the Project

This project will serve as a basis for a hand hygiene program at the study site. The results of the project will be disseminated in an in-service for all staff members at the study site. My goals for project dissemination are to improve hand hygiene, especially among nurses. Doing so should reduce nosocomial infections prevalence within practice settings.

Further dissemination will take place at a nursing college for first and second year nursing students and through publication in a peer-review journal. Upon completion this project will be submitted to ProQuest for dissemination to a larger audience.

Analysis of self

Having a Doctorate in Nursing Practice degree may open more opportunities for my career. Post-graduation, my goal is to become certified in high fidelity simulation. Becoming certified in high fidelity simulation will give me the opportunity to inspire student nurses to learn skills essential to becoming safe practicing nurses. I am a kinesthetic learner by facilitating high fidelity simulation nursing training will give me the opportunity to utilize my strengths. As a health care professional staying abreast with the rapidly changing field of nursing is imperative to the services I provide to others.

Summary

Maintaining a network of healthcare providers (nurses) within my specialty, subscribe to scholarly journals to stay abreast of current trends that will assist in strengthening my career marketability and minimize the likelihood of me feeling inferior in my role.

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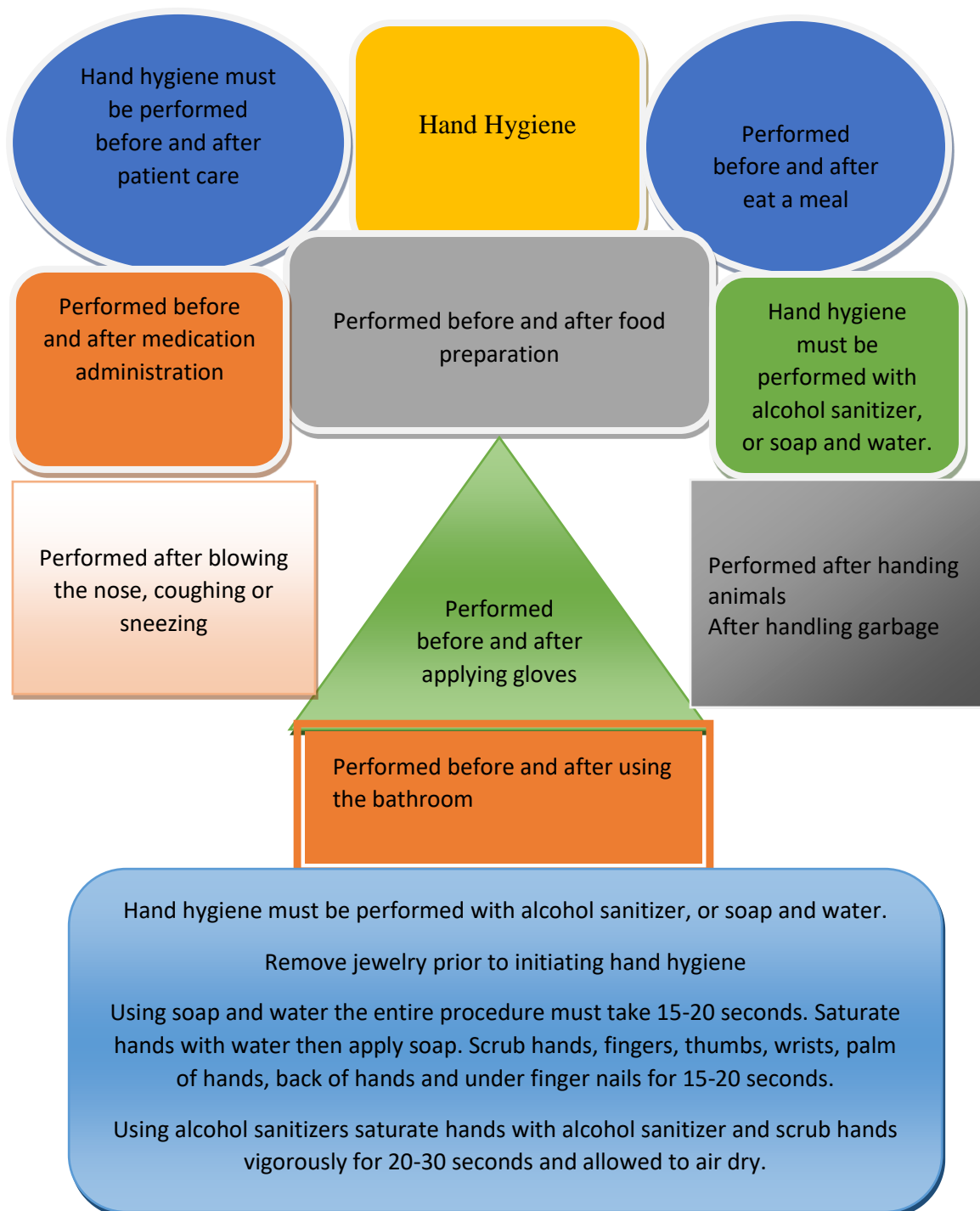
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Appendix A: Poster



Appendix B: Project Questionnaire

(1). Do you worry about getting/giving nosocomial infections?

Strongly agree Agree Disagree Strongly disagree

(2). The elderly & immunocompromised population are at risk of contracting a nosocomial infection?

Strongly agree Agree Disagree Strongly disagree

(3). Do you think that this program will improve your knowledge of hand hygiene?

Strongly agree Agree Disagree Strongly disagree

(4). Do nosocomial infections increase mortality and morbidity rate?

Strongly agree Agree Disagree Strongly disagree

(5). Do you think that your knowledge of hand hygiene can decrease the incidence of nosocomial infections?

Strongly agree Agree Disagree Strongly disagree

(6). Do you think hand hygiene education can reduce the incidence of nosocomial infections?

Strong agree Agree Disagree Strongly disagree

(7). Do you think that hand hygiene is the most underused intervention that can reduce the incidence of nosocomial infections?

Strongly agree Agree Disagree Strongly disagree

(8). Do you think that noncompliance of hand hygiene increases the incidence of nosocomial infections?

Strongly agree Agree Disagree Strongly disagree

(9). Do you think that a hand hygiene program is necessary for the acute care setting?

Strongly agree Agree Disagree Strongly disagree

(10). Do you think that hand hygiene is imperative among nurses?

Strongly agree Agree Disagree Strongly disagree

Leave comments:
