

ABSTRACT

Surgical site infections (SSIs) are serious healthcare complications that can be prevented through meticulous aseptic technique. Perioperative nurses, however, may lack the knowledge necessary to adhere to the rules of aseptic technique. A training program designed to educate nurses at the VA Healthcare System on correct surgical asepsis has the potential to lower patient mortality rates and decrease the cost associated with treating SSIs. The purpose of this MSN project is to create and distribute an in-depth training program to pre, peri, and post-operative nurses to decrease the rate of preventable SSIs. This project will ensure that veterans receive the best care possible by providing nurses with the knowledge they need to be skilled and confident in aseptic practices.

PICO QUESTION

What are the effects of implementing a quality improvement training program for surgical nurses regarding best practice for reducing surgical site infections for improving post-operative patient outcomes for veterans receiving surgery at the VA Hospital?

LITERATURE REVIEW

A literature review was conducted to identify sources on nurse-led infection prevention strategies. The identified articles included information on current guidelines and protocols for aseptic technique and teaching methods for nursing and medical staff on the aseptic process. Each article supports the need for methods traditionally used to educate surgical nurses to prevent SSIs.

- Risk Factors for Surgical Site Infections
- Wound Classification
- Best Practices for SSI Prevention
- Nursing Education in Quality Patient Care
- Patient and Family Education

SURGICAL SITE INFECTION: NURSING EDUCATION FOR ASEPTIC TECHNIQUE

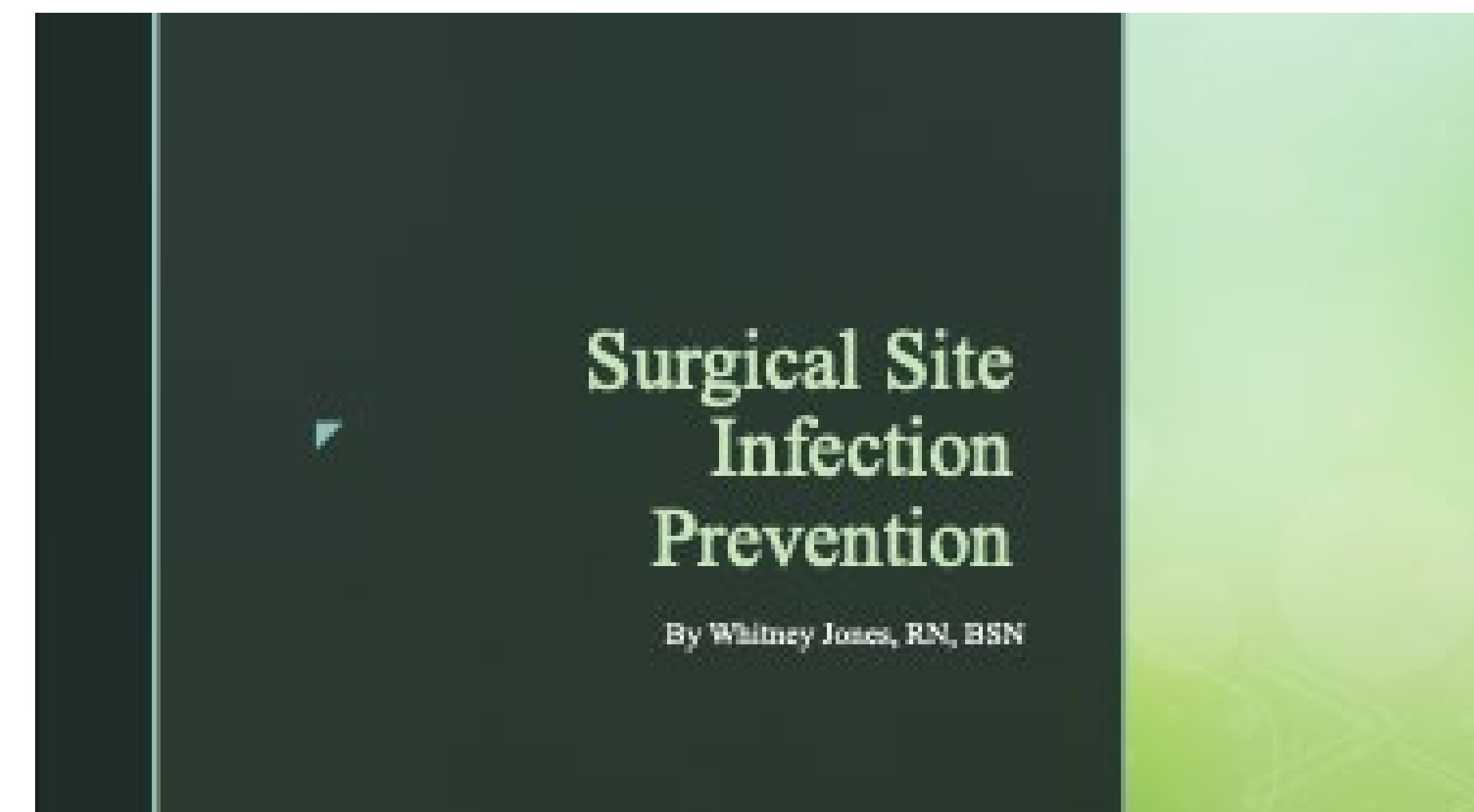
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PROJECT METHODOLOGY

The purpose of this MSN project is to create a training program for novice and expert nursing staff within the intraoperative, perioperative, and postoperative units of the VA Hospital to decrease the incidence of SSIs. Six deliverables have been created to support and ensure the educational success of nursing staff. The deliverables include a pre-education survey, a presentation of outcomes and educational requirements, educational videos, educational handouts, a simulation lab, and a post-education survey.

PURPOSE

- Badia et al. (2020) suggests that training programs for the surgical services nurses and ancillary staff are necessary to prevent fatal SSIs.
- The creation of a training program will allow nursing staff to better understand the inner workings of infection prevention and assist in developing proper patient advocates.



(Figure 1)



(Figure 4)

MODES OF TEACHING

- POWERPOINT PRESENTATION
- INSTRUCTIONAL VIDEOS
- HANDOUTS
- SIMULATION

COMPETENCY EVALUATION

- **PRE-EDUCATION SURVEY:** This survey will assist in identifying knowledge gaps in nurses. Understanding the knowledge gaps of the novice and expert nurses will help the planner choose the education topics to meet the group's specific needs.
- **POST-EDUCATION SURVEY:** The survey will measure nurses' knowledge, performance ability, and confidence in their practice after the training.

(Figure 2)



(Figure 3)



(Figure 5)

THEORETICAL FRAMEWORK

This project will follow the ACE STAR Model of Knowledge Transformation to implement evidence-based practice changes. The ACE STAR Model is comprised of the following stages: discovery research, evidence summary, translation to guidelines, practice integration, and process outcome evaluation ⁽⁶⁾. Discovery research revolves around searching for new knowledge in different qualitative and quantitative methodologies ⁽³⁾. For surgical site infections, knowledge-based reasoning must come from a system of research evidence, trial and error, and experience ⁽⁴⁾. It is vital to have evidence backing the usage of prepping chemicals, sterile technique, and proper central processing of supplies to make operating room nursing practice changes.

CONCLUSIONS

SSIs are among the deadliest hospital-acquired infections within the VA medical system ⁽⁵⁾. These infections are preventable with proper education and training of OR staff members ⁽¹⁾. The purpose of this project is to create and teach a course on SSI prevention. As the surgical staff of the VA Hospital implements and masters the training provided, the sterile technique and nursing staff's performance of infection preventative tasks will help decrease SSI rates. As these rates diminish, the possibility of the VA hospital system redeeming an impressive number of resources. Finally, with this education, the goal of saving the Veteran population the heartache and distress of preventable illness will become a reality and lead to enhanced quality of life.

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Figures

Figure 1. Medical Student Education. Stock Image.

Figure 2. Nursing Empowerment. Stock Image.

Figure 3. Operating Room Education. Stock Image.

Figure 4. Teaching in Healthcare. Stock Image.

Figure 5. OR Nursing. Stock Image.