

## Reduction of Surgical Site Infections Through Education

Indiana State University

Michele Lasley MSN, RN, CNOR Indiana State University

#### Abstract

The purpose of this project was to assess nursing knowledge pertaining to implementation of evidence-based practice that has been found to reduce the risk of surgical site infections (AORN, 2019; Mullen et al., 2017). Nursing knowledge was assessed prior to and following the delivery of education on monitoring OR traffic, covering the sterile field with sterile drapes, and patient nasal decolonization.



http://www.mycitymag.com/jerry-proyorse-operating-room-nurse/

## Background

As one of the leading causes of healthcareassociated infections, surgical site infections are a major healthcare concern (Centers for Disease Control and Prevention, 2019). It is estimated that 2% - 5% of individuals who undergo an inpatient surgical procedure develop a surgical site infection (Ban et al., 2017). It is also estimated that approximately half of surgical site infections could be prevented if evidence-based practices were followed (Berrios-Torres et al., 2017).

## Objective

The objective of this project was to assess whether or not an educational intervention affected the level of knowledge related to practices that may reduce the risk of surgical site infections.

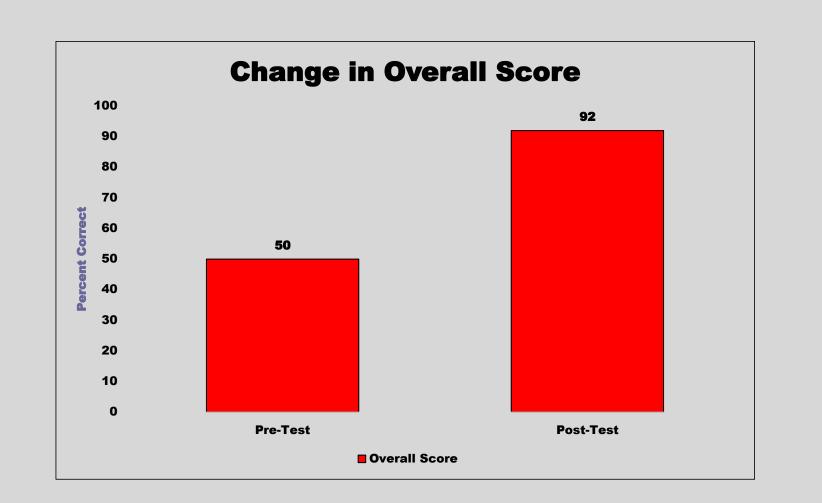
#### Methods

This study utilized a quantitative, quasiexperimental research model with a one-group pretest–posttest design. An online questionnaire was used to evaluate registered nurses' and certified surgical technologists' level of knowledge prior to and following an educational presentation. Pre-test and posttest scores were then compared in order to determine whether or not there was a significant difference in scores prior to and following the educational intervention.



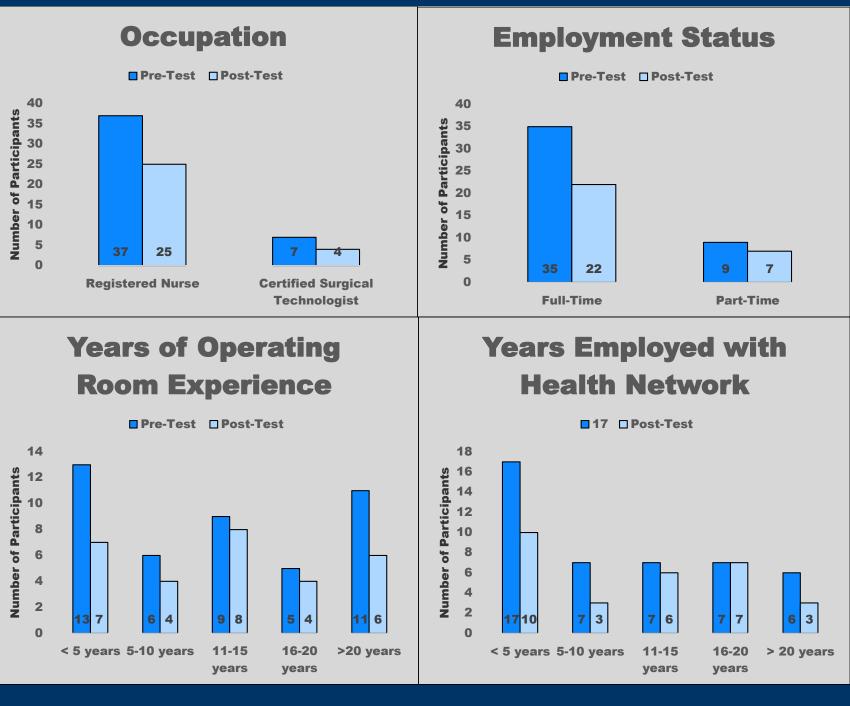
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#### Results

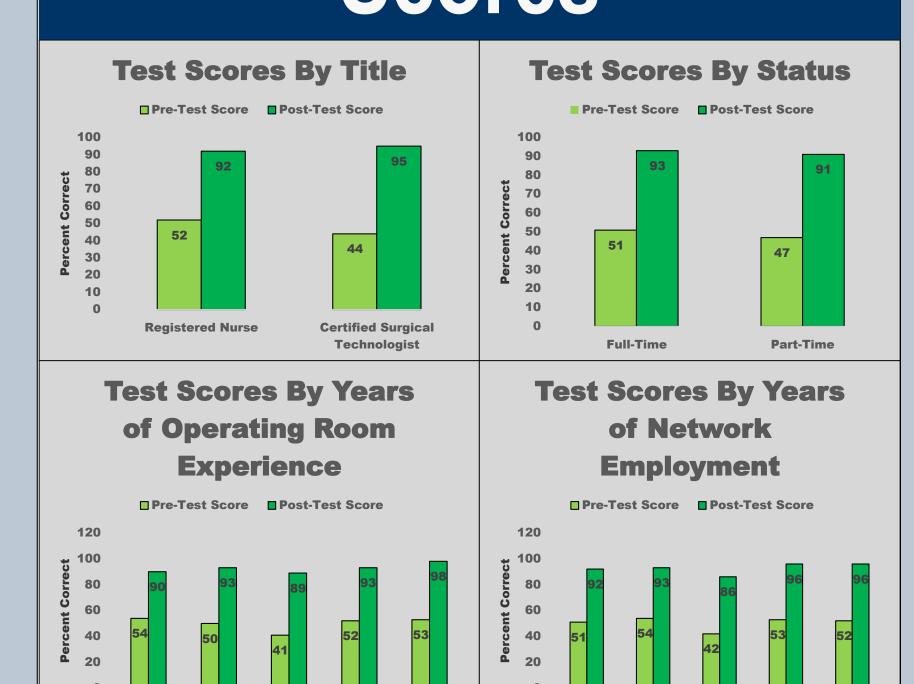


- A total of 44 staff members participated in the pre-test and 29 staff members participated in the post-test.
- The overall average score increased from 50% correct on the pre-test to 92% correct on the post-test.
- The largest improvement in test scores occurred among certified surgical technologists where scores improved from 44% correct on the pretest to 95% correct on the post-test. This equated to an increase of 51 percentage points.
- The smallest change was observed among staff members who had less than 5 years of operating room experience. The overall pre-test scores for this group averaged 54% and post-test scores averaged 90%, an increase of 36 percentage points.
- The highest overall post-test scores were recorded among the staff members who had greater than 20 years of operating room experience.

# Participant Demographics



## Participant Test Scores



#### Conclusions

Surgical site infections cause a significant amount of pain, suffering, and financial burden to the patients who develop a postoperative infection each year (Berrios-Torres et al., 2017). It is important for healthcare providers to follow evidence-based guidelines in order to provide the safest care possible and improve outcomes for surgical patients. One way to improve compliance with evidence-based practice is to increase knowledge of practice guidelines.

This study supports the use of an educational intervention as a means of increasing the knowledge level of operating room registered nurses and certified surgical technologists.



tps://www.healthschoolfinder.com/operating-room-nurse/

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