

Evaluation of an Educational Intervention on the Perioperative Nurse's Perceptions Related to Safety Culture in the Prevention of Wrong Site Surgery.

Thereza B. Ayad , RN, MSN, DNP, CNOR

Background

The Academy of Sciences, formally the Institute of Medicine (IOM) (Kohn, Corrigan, Molla, & Donaldson, 1999), detailed the magnitude of healthcare errors, indicating that 44,000 to 98,000 people are harmed annually by mistakes that are considered preventable. An estimated \$17 to \$29 billion is spent on these errors resulting in wasted health care resources.

Healthcare errors are preventable adverse events varying in severity from causing minimal harm to death. The most severe adverse events are considered *Never Events*. Frequently reported Never Events include wrong-surgery.

After the release of the IOM findings, accrediting, regulatory and professional organizations were at the forefront of addressing the wrong-surgery problem.

The Joint Commission's National Patient Safety Goals (NPSGs) about invasive procedures were expanded to develop, *The Universal Protocol for Wrong Site, Wrong Procedure, and Wrong Person Surgery*. In 2004, the Joint Commission began to require compliance with the Universal Protocol as a condition for accreditation.

The Universal Protocol is a verification process to ensure correct patient, procedure, and site (The Joint Commission received 1803 reports of wrong- surgery between 2005 and 2021.

Research Question

What is the effect on perioperative nurses' perceptions (attitudes) related to safety culture around the Joint Commission's *Universal Protocol for Preventing Wrong Site, Wrong Procedure, Wrong Person Surgery™*, Time Out processes and use of the *Surgical Safety Checklist* following the educational intervention?

Study Design

The study was a prospective quantitative pilot study within a one-group pretest-posttest and educational intervention.

Sample

Participants were recruited from a pool of approximately 81 perioperative nurses, of which met the inclusion criteria of working in a procedural area: main operating room, procedure room, endoscopy suite, interventional radiology, dermatology clinic, preoperative holding, PACU/ recovery, and pre-admission testing.

Setting

The study took place at a hospital in the Northeastern United States.

Author contact:
Thereza B. Ayad RN, MSN, DNP, CNOR
Perioperative Nurse Educator
Email: thereza.ayad@umassmed.edu

Measurement/Methods

Intervention:

The study participants completed the educational intervention module: *Culture of Safety Around the Universal Protocol for the Prevention of Wrong Site Surgery™* as an online learning activity.

The pretest scores were compared to posttest scores to determine knowledge gains using the *Safety Attitudes Questionnaire (OR Version)* (Makary, Sexton, Freischlag, Millman, et al., 2006).

Validated Instrument:

Safety Attitudes Questionnaire (OR Version), (Makary, Sexton, Freischlag, Millman, et al., 2006).

- The survey has a total of 59 items, of which 30 items for domains of teamwork climate, safety climate, job satisfaction, perceptions of management, stress recognition, and working conditions.
- Each domain represents a measurement of the healthcare providers' perceptions of the culture of safety in the hospital setting.

Evidenced-Based Model:

The **Assess, Design, Develop, Implement and Evaluate (ADDIE)** conceptual framework was used to plan the implementation of the educational intervention related to patient safety protocols and the survey of perioperative Registered Nurses in safety culture in the study setting.

Key Findings

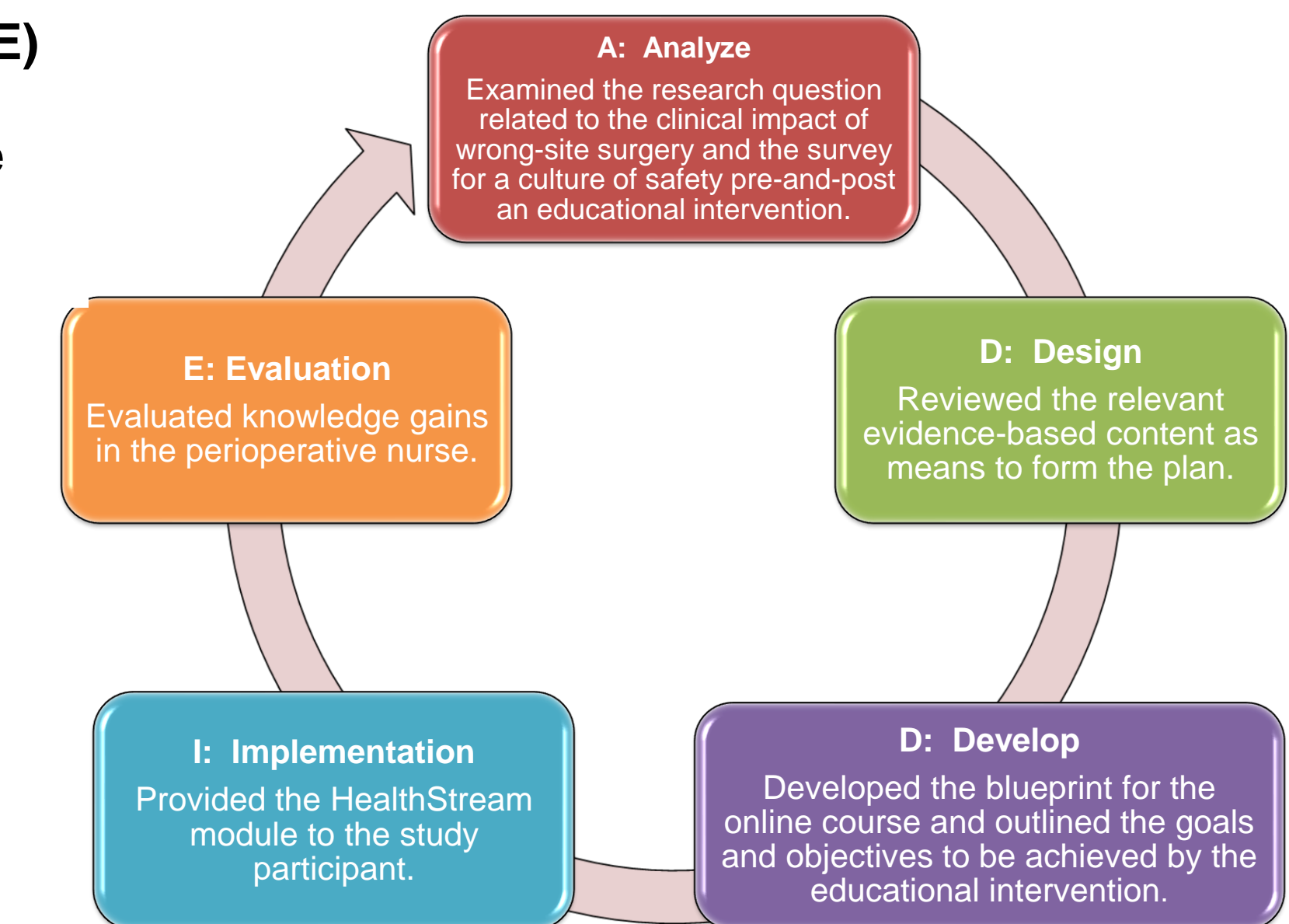
- During the pre-test, results were unexpectedly high. During the post-test, the scores were slightly higher. Given the already positive outlook, there was negligible room for improvement. Statistical analysis did not find significance.

Mean Scale Score for Pre-test and Post-test Results

Pre-test (n = 76)		Post- test (n = 59)	
M	SD	M	SD
3.39	0.68	3.56	0.75

Conclusion

This study found that after completing an educational intervention, scores were slightly higher during the post-test when compared to the pre-test. This result could reflect more knowledge acquired after reviewing the module content around safety culture. These scores were not statistically significant post-test given the already positive outlook pre-test. There was negligible room for improvement given the positive perceptions in perioperative safety culture and communication and collaboration.



References

Ayad, T. B. (2018). *Evaluation of an Educational Intervention on the Perioperative Nurse's Perceptions Related to Safety Culture in the Prevention of Wrong Site Surgery* (Doctoral dissertation, Regis College).

Additional references available upon request.

