

# Implementing a Specialty Nurse Residency Program to Improve Perianesthesia Nurse Confidence and Reduce Errors

Rhiannon Eich BSN, RN, CNOR, CSSM

St. David's School of Nursing, College of Health Professions, Texas State University, Round Rock Campus

## Description of the Problem

Of the approximately 4000 surgical errors documented each year in the United States, most occur before or after the surgical procedure (Rodziewicz et al., 2021), thus meticulous pre-operative care is critical to quality care and patient safety. Despite the utilization of nurse residency programs in most nursing units at an acute care hospital in Austin, Texas, prior to February 2021, no program targeted perianesthesia units. Patients undergoing surgery require focused assessment, appropriate surgical consent, fulfillment of surgical orders, and timely administration of medications in accordance with their scheduled procedure.

### Purpose Statement

- The purpose of this quality improvement project was to increase new nurses' confidence levels in caring for surgical patients and decrease the number of errors and unnecessary surgical delays by improving the 12-week nurse residency program offered to new nurses caring for surgical patients.

### Project Aims

- Aim #1**-Perianesthesia nurse residents demonstrate at least a 20-point increase in overall confidence rating in preparation of surgical patients from baseline survey to final (12-week) survey.
- Aim #2**-See a 5% reduction in surgical delays related to preoperative nursing care from baseline report in January 2021 to completion of summer cohort in October 2021.

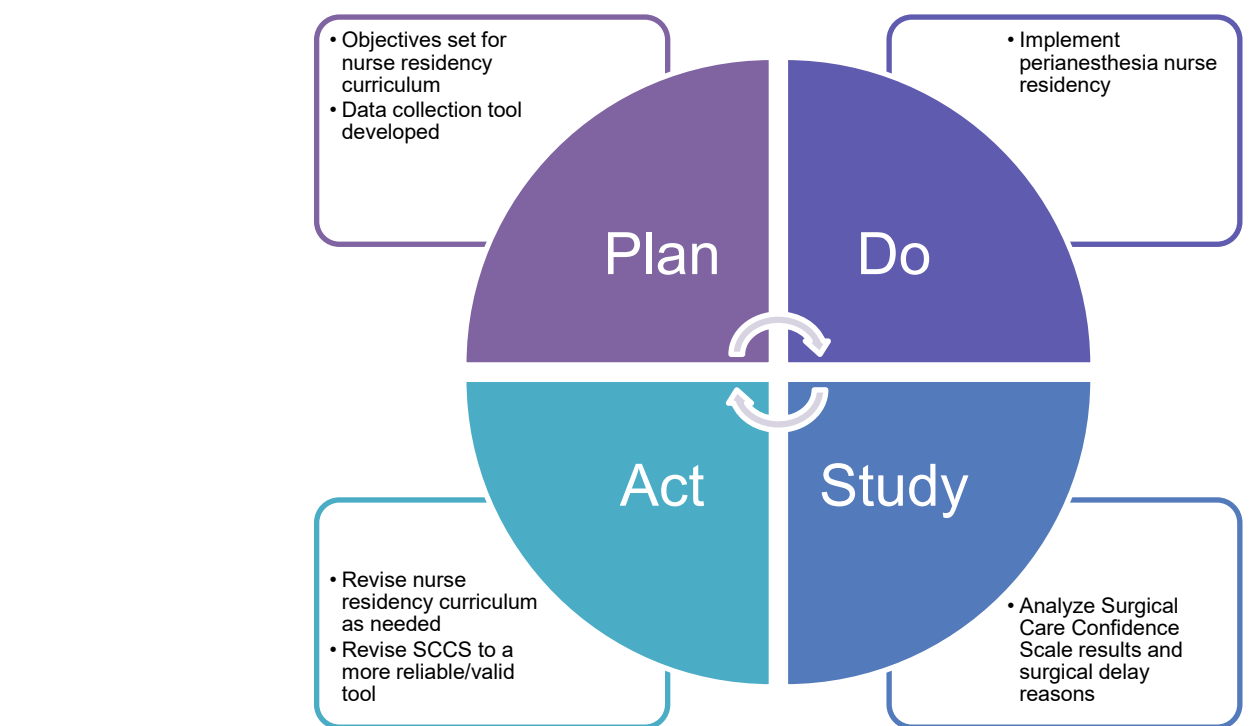
## Synthesis of Evidence

- Transition to practice programs help to reduce the gap in clinical competencies by providing structured experiential learning and designated mentors (Reebals et al., 2021).
- An integrative review found that while new nurse graduates were generally perceived as able to provide safe care, areas of concern still existed surrounding critical thinking, ability to problem solve, and conduct focused patient assessments (Murray et al., 2020).
- Nurse residency programs have been found to create a support system for nurse residents while also increasing self-perceived proficiency, building confidence, and decreasing distress (Perron et al., 2019).
- Perioperative nurse residents demonstrate the need for a different approach and need time to adjust to a new set of terminology and technology while learning to apply wise clinical judgement and gain competence in providing safe, quality-driven care to surgical patients (Mullohan & Morales, 2016).



## Project Description

### Conceptual Framework



### Project Design

- Quality improvement (QI) project implemented at an acute-care hospital in Austin, TX seeking to answer, "Does the implementation of a specialty nurse residency program improve perianesthesia nurse confidence and reduce errors?"
- Comparison of before and after self-perceptions obtained through a 10-question survey (see below) taken at baseline, 6-week midpoint, and 12-week completion of nurse residency
- Participants ( $n=5$ ) were perianesthesia nurse residents that had recently graduated nursing school and no prior nursing experience. Sample was 80% female and 20% male, 100% graduated from BSN program

Surgical Care Confidence Scale

Number: \_\_\_\_\_ Checkpoint (Week #): \_\_\_\_\_ Baseline \_\_\_\_\_ Mid-Cycle \_\_\_\_\_ End of program \_\_\_\_\_

Please respond to the following tasks by selecting your comfort level for each statement based on the following scale:

1-Very uncomfortable, 2-Somewhat uncomfortable, 3-Neither uncomfortable nor comfortable, 4-Somewhat comfortable, 5-Very comfortable

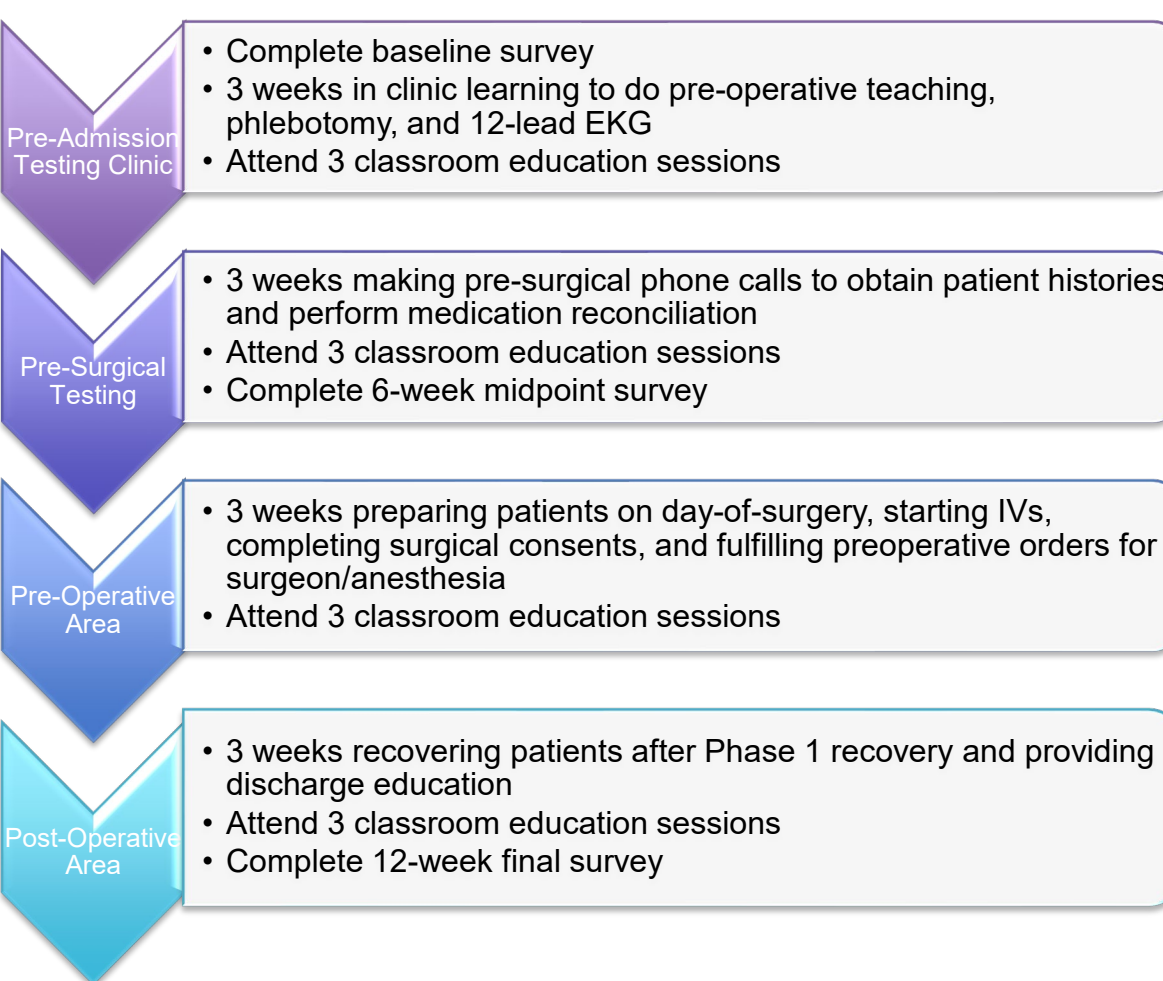
\*Respond as honestly as possible, this will help to make our program the best it can possibly be!

	Very Uncomfortable	1	2	3	4	5 Very Comfortable
1. Starting an IV/Drawing labs						
2. Checking/Completing MD orders						
3. Performing a 12 lead EKG						
4. Completing a nurse history						
5. Filling out a surgical consent and navigating alternative scenarios (i.e. phone consent, guardian, etc.)						
6. Evaluating critical lab values and when/how to notify anesthesia or surgeon						
7. Completing a medication reconciliation						
8. Determining which medications need to be held prior to surgery and how long to hold						
9. Performing discharge teaching						
10. Fully ensuring that a patient's chart is complete, and they are ready for surgery						

Data Collection Tool-Surgical Care Confidence Scale, author-developed based on facility's departmental competencies

### Implementation

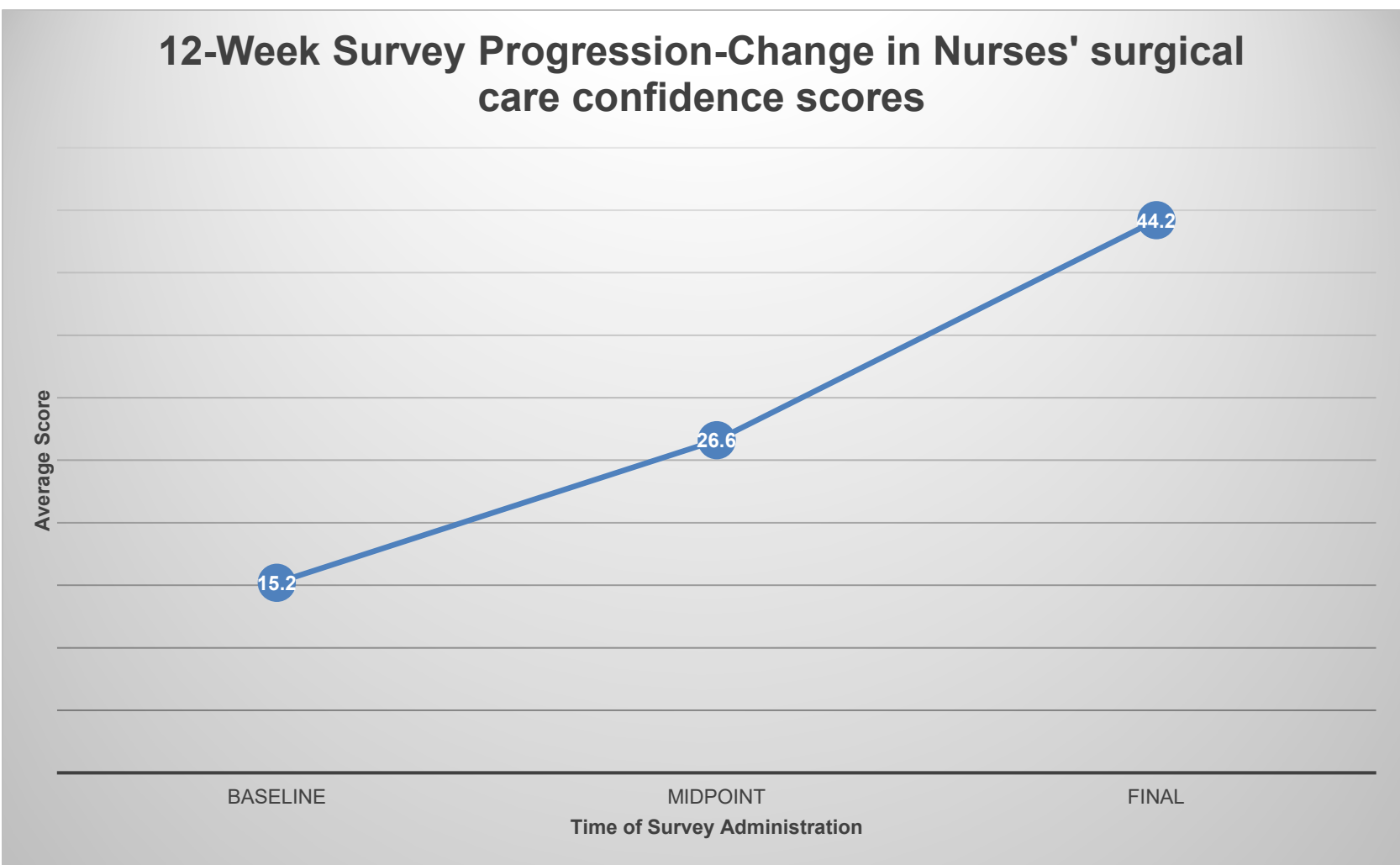
- Explained QI project to nurse residents during 1<sup>st</sup> week orientation & provided nurse residency schedule
- Different mentor for each perianesthesia area
- Some schedules had to be altered due to lack of qualified preceptors



## Results

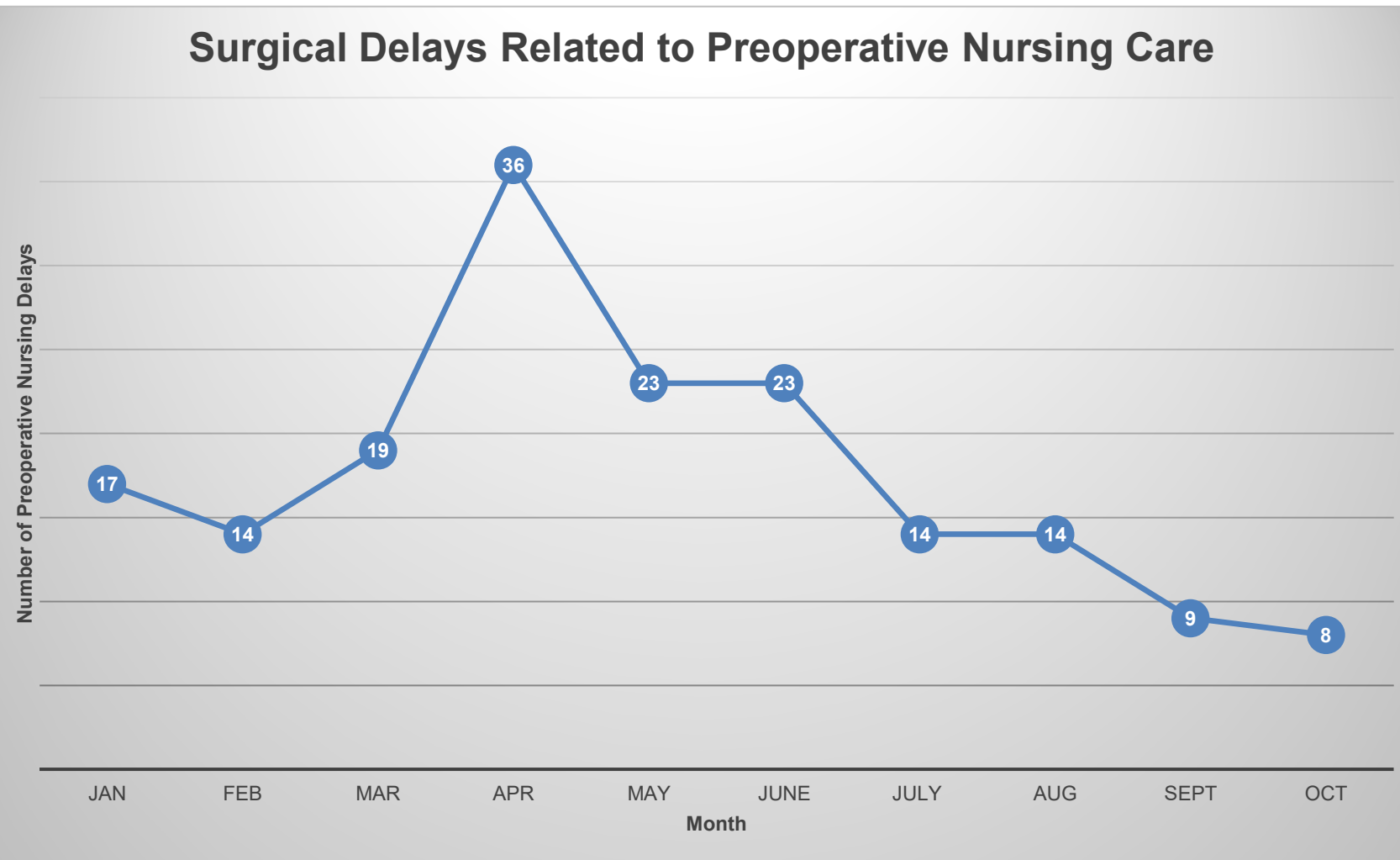
### Aim #1-MET

- Perianesthesia nurse residents demonstrate at least a 20-point increase in overall confidence rating in preparation of surgical patients from baseline to final (12-week) survey
- Mean increase of 29 points from baseline to final survey



### Aim #2-MET

- See a 5% reduction in surgical delays related to preoperative nursing care between baseline report in January 2021 to completion of summer cohort in October 2021
- 53% reduction in surgical delays related to preoperative nursing care despite initial increase in preoperative delays witnessed in Q2



### Limitations

- Small sample size
- Limited number of experienced preceptors in each area
- Lack of a validated and reliable survey tool
- Inability to adhere to original schedule due to pandemic and inclement weather

## Implications for Practice

### Recommendations

- Create a structured program that consistently progresses and follows the same schedule for each nurse resident
- Provide opportunities for real-time feedback from nurse residents and allow for additional time in an area if needed

### Sustainability

- This facility will continue to hire 2 perianesthesia nurse residents per cohort and allow for a more self-paced approach without setting the expectation that training be completed at 12 weeks at an overall cost savings compared to hiring an experienced nurse or use of contract labor.

### Policy Implication

- In addition to self-assessment of competency completing perianesthesia-related tasks, nurse residents at this facility will be signed off by preceptor as competent in each objective before successful completion of nurse residency.

## Takeaway Message

**Specialized *perianesthesia* training for new graduates at this facility was shown to increase *confidence* in providing *safe, quality* care for surgical patients and *reduce* surgical delays**



## References

Reference list available upon request.