

Effectiveness of Pediatric Competency-based Orientation (PCBO) on Knowledge, Confidence, and Manifestation of Early Recognition of Nursing Expertise Among PACU Nurses

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Introduction

At Mercy Medical Center (MMC), historically in the main PACU, the nurses cared for a primarily adult patient population. With the restructuring of all surgical patients to the main PACU and the opening of a new orthopedic surgical suite, changes occurred with the pediatric patient population. The nurses who would be providing care for the pediatric patients were lacking exposure to this patient population.

Identification of Problem

Subsequently, the experienced perianesthesia nurses verbalized concerns related to the pediatric patient population:

- Feelings of anxiety
- Lack of confidence
- Uncertainty

Purpose

The research intent was to evaluate the effectiveness of the American Society of Perianesthesia Nurses (ASPAN) Pediatric Competency-Based Orientation (PCBO) education program on knowledge, confidence, and early recognition of nursing expertise among perianesthesia nurses in an acute care setting.

Research Question

Does the implementation of the ASPAN PCBO tool increase the knowledge, confidence, and early recognition of nursing expertise in the pediatric patient population for primarily adult perianesthesia nurses?

Methods

- Research Design: A quasi-experimental pre/post survey-intervention designed to assess changes in the nurses' pediatric knowledge, confidence, and early recognition of nursing expertise using the ASPAN PCBO
- Sample: Inclusion criteria included nurses working in the Preop, PACU Phase I, and PACU Phase II in an acute care community facility. Nurses who chose not to participate in the study and non-perianesthesia nurses were excluded. A total of convenience sample size was 60 nurses
- An Internal Review Board (IRB) approved quasi-experimental anonymous pre/post survey-intervention design study was conducted
- Pre and post intervention surveys were completed to evaluate knowledge, confidence, and early recognition of nursing expertise
- Codes were assigned to participants
- Unmatched group analysis using independent samples t-test compared the change in mean scores pre and post application of the PCBO

Results Data

Confidence and Recognition of Nursing Expertise									
	Time	N	Mean	SD	Time	N	Mean	SD	p-value
Assessment Subscale 4-items	Pre	60	10.7	1.8	Post	52	12.1	1.9	<0.001
Communication Subscale 2-items	Pre	60	5.8	0.8	Post	52	6.3	0.9	0.005
Education Subscale 2-items	Pre	60	5.2	1.1	Post	52	6.0	0.9	<0.001
Medication Subscale 1-item	Pre	60	2.4	0.7	Post	52	2.8	0.6	<0.001
Self-Management Subscale 5-items	Pre	60	13.6	2.0	Post	52	14.9	2.2	0.002
Teamwork Subscale 2-items	Pre	60	5.5	0.7	Post	52	6.1	1.0	<0.001
Knowledge Subscale 17-items	Pre	60	42.8	6.7	Post	52	49.6	7.1	<0.001
Confidence Scale Total 33-items	Pre	60	85.9	12.0	Post	52	97.8	13.5	<0.001

Outcomes/Results

Participants reported an increase in each of the seven subscales: assessment, communication, education, medication, self-management, teamwork, and knowledge. The total confidence index, a sum of the seven subscales, increased significantly. The recognition of nursing expertise scale increased from 43.4 to 48.6, an 11% relative increase in nursing expertise.

Discussion

- It was hypothesized that an increase in knowledge, confidence, and early recognition of nursing expertise would be seen post implementation of the ASPAN PCBO didactic
- The study demonstrated utilizing ASPAN's PCBO directly correlated with the improvement of the nurses' knowledge, confidence, and early recognition of nursing expertise

Limitations

The study was conducted at an acute care community hospital with a limited amount of pediatric patients who were typically seen in the early hours of the day. Data collection was a challenge and frequent follow up and reminders were required.

Implications for Perianesthesia Nurses & Future Research

The ASPAN PCBO was demonstrated to be a resource for experienced and novice practicing perianesthesia nurses. By increasing the nurses' knowledge of the pediatric patient population, the nurses are better prepared to provide high quality patient care, improve patient/family satisfaction, and improve patient outcomes. Due to the study limitations and limited evidence on the subject, future studies should be conducted to further validate the findings.

Conclusion

The study validated the application of the ASPAN PCBO does correlate with improved knowledge, confidence, and early recognition of expertise among adult perianesthesia nurses.

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References

