

INTERRUPTIONS IN PREANESTHESIA NURSING WORKFLOW: A PILOT STUDY OF PEDIATRIC PATIENT SAFETY

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Introduction: Preanesthesia care represents a high risk system where interdependencies and interdisciplinary coordination is important to workflow, communication patterns, and information needs. Minimizing preventable distractions is one method believed to decrease errors (Ross, 2013).

Identification of Problem: The nature of preoperative nurses' work is plagued by factors that threaten patient safety. One unexplored factor is the assessment of interruptions occurring during the preanesthesia assessment (PAA).

Purpose: 1) Describe the number and type of interruptions occurring during the PAA nursing assessment and 2) evaluate the effectiveness of a no interruption zone (NIZ) on the number of interruptions experienced and 3) determine if the NIZ improves patient safety in the preoperative phase by reducing the number of interruptions.

Methodology: This pre and post, quasi-experimental pilot study, using observational methodology was conducted in a 23 bed pediatric perianesthesia unit within an academic medical center. After IRB approval, event observation training was conducted using a specified protocol. Inter observer agreement was at least 90%. Observations were conducted in two hour blocks of time.

Intervention: After 44 baseline observations, an NIZ was then created using signage and color coded curtains in a designated geographical location within the unit. Following a two-week run-in, 36 post NIZ observations were conducted.

Results: There were 389 pre NIZ interruptions (mean= 8.82 SD = 4.6) and 217 post NIZ interruptions (mean = 6.38; SD 3.27); a statistically significant decrease ($t= 2.72$ $p = .008$). Of the pre NIZ observations, 57% of these occurred within intervals of one minute or less which decreased to 39% post NIZ. Most interruptions for both observation periods were physical/verbal and self interruptions. Pre NIZ, nurses did not returned to their original task 14.4% of the time versus 8.8% post NIZ.

Discussion: Data suggests the number and nature of interruptions leads to fragmentation of nurses' workflow.

Conclusions: The use of an NIZ was found to decrease the interruptions experienced by preoperative nurses during the PAA thereby decreasing workflow fragmentation.

Implications for Practice: Decreasing the number of interruptions has the potential to improve patient safety by enhancing the quality of information the nurse obtains during the PAA.