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Analysis of Surgical Personnel Traffic in the Operating Room

Sophia Jarzembowski
Hope College

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Sophia Jarzembowski, Student, Hope College Nursing Department
Carol Shaffer, MSN, RN, CNS, Surgical Services Mercy Health Saint Mary's
Anita Esquerra-Zwiers, PhD, RN, Hope College Nursing Department

Background

- Increased operating room (OR) traffic is related to an increase in surgical site infections.
- Studies have shown the OR door to be the area of highest touch and contamination.
- Increasing door swings in the OR
  - Introduces unnecessary environmental contaminants
  - Causes a disturbance in airflow

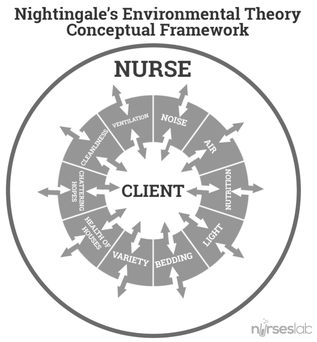
Purpose

The purpose of this study was to identify which surgical personnel contribute the most to OR traffic and are behind high traffic levels.

Research Questions

- Which role of surgical personnel contributes the most to operating room traffic?
- What is the main reason for entry/exit into the operating room?

Theoretical Framework



The operating room environment affects patients outcomes, specifically the risk for surgical site infections.

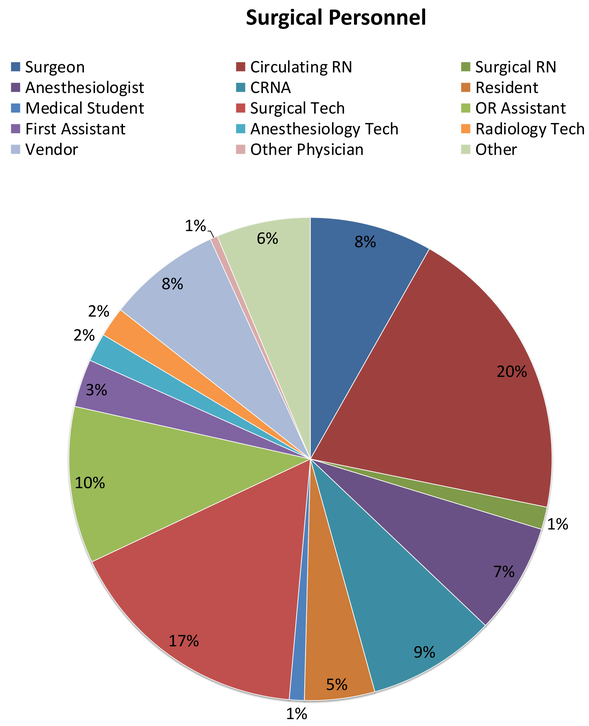
Methodology

- Longitudinal observational descriptive design
- Non-Profit Midwest Hospital
- Convenience sample: Direct observation of scheduled operating room procedures (n= 71)
- Analysis: descriptive statistics using SPSS
- Data managed using REDCap©
- Percentage of personnel responsible and reasoning were compared
- Measures
  - Door swings: surgical personnel responsible, time, reason for entry/exit, location of door, and direction
  - Phases: Phase 1, 2, or 3
  - Duration of overall case and each phase
  - Type of case: Gynecology, Orthopedic, Neurology, Bariatric, General, Other

Results

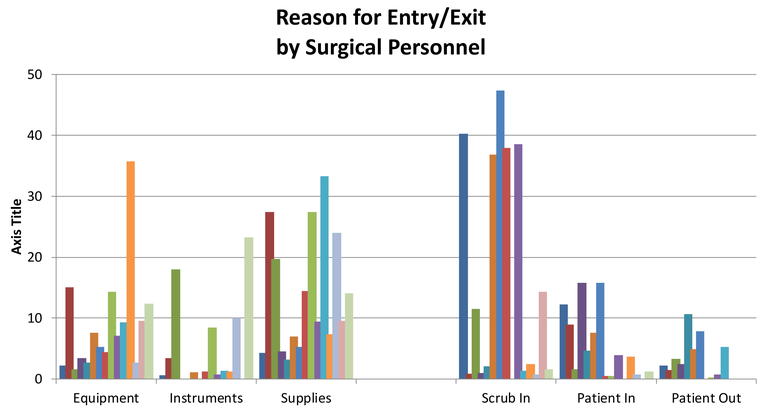
Surgical Personnel

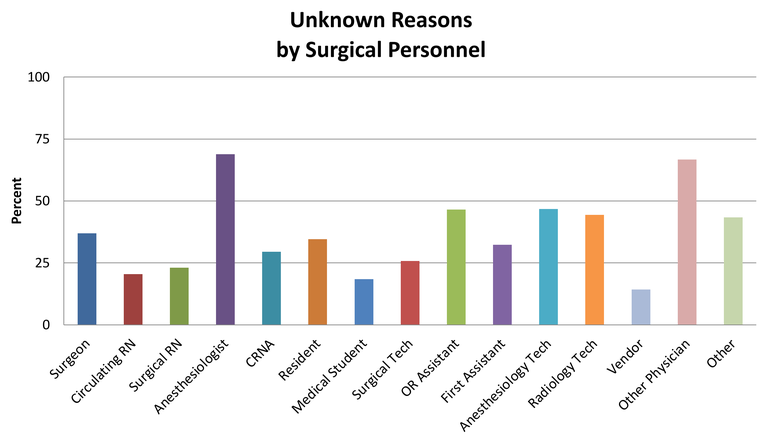
- No significant results obtained
- High percentage of circulating RNs (20%), surgical techs (17%), and OR assistants (10%) contributing to OR traffic.



Reason for Entry/Exit

- High percentage of unknown reasoning (33%) for entry/exit into OR.
- Anesthesiologists (68.8%) were the largest contributor to unknown reasoning.





Limitations

- Hawthorne Effect
- Small sample size
- Convenience selection of surgical cases
- Inconsistent data collection

Conclusions & Implications

- Certain personnel are contributing to OR traffic more than other surgical personnel roles.
- The reasons for entry and exit on the observation tool for for anesthesiologist should be updated to include "check ins."
- Nurses are vital to the care of the surgical patient and knowing causes of OR traffic can inform nursing practice for future interventions.
- Future studies can investigate behaviors that could be modified in order to decrease patient risk.