INTRODUCTION
It has been supported that interruptions contribute to medical errors, decrease efficiency, and increase hospital expenses. Interruptions can include but are not limited to: system failure, phone calls, pages, coworker requests, equipment failure, patient status change, patient family questions and requests, and face to face communication with other staff members. • On average, a nurse is interrupted 7 times every hour, which tallies to 48.2 interruptions for an 8 hour shift. More often than not these interruptions are avoidable. • 43% of medication errors are attributed to workplace distractions that force nurses to multitask. • Clinical errors have a significant effect on the patient, contributing to 44,000-98,000 hospital deaths yearly, and costing between $17-29illion in expenses. • Existing literature suggests that interruptions comprise 22% of a nurse’s work time. Based on the data collected from this study, we were able to inform current nursing quality improvement projects and suggest techniques to reduce the frequencies of interruptions and the resulting impact on clinical care.

MATERIALS & METHODS
• Two Medical Surgical units identified for participation Wilmington(46%) and Christiana (54%) • 2 trained observers (I & NA) • Shadowing hours consisted of 4 hour intervals ✓ 7am to 11pm Monday through Friday ✓ Data Collection included: • Source of interruption • Primary task being interrupted • Response to interruption • Duration of interruption • Status of primary task

RESULTS

35 SHIFTS 863 INTERRUPTIONS LOGGED 140 HOURS

Purpose of Interruption Frequency
Clinical Care 360 (42%)
Comfort 143 (17%)
Communication 188 (22%)
Member of the Health Team 113 (13%)
Patien 11 (1%)
Family/Support Person 223 (5%)
Document 223 (5%)
Patient Safety 46 (6%)
Other 80 (7%)

Primary Task Interrupted Frequency
Documentation 463 (54%)
Direct Patient Care 156 (18%)
Medication 177 (9%)
Preparation 149 (10%)
Nurse to Nurse Report 149 (10%)
Patient Centered Rounds 203 (24%)
Other 31 (3%)

35, 2% 570, 66%
559, 30%
9, 1%

Limitations
• Potential observer effect.
• Duration of shadowing shift (4 hours) versus actual shift (anywhere from 8-12 hours). Additionally, although we shadowed a substantial amount of nurses, our study may be subject to inconsistencies due to the length of observation time.
• The rate of admission and discharge of patients during a observation period affect the nurse to patient ratio which may have an effect on the rate of interruption, impacting our data.

Clinical Implications
Nurses spend between 16 and 34 percent of their time dealing with interruptions and most of the documented interruptions took place during the 3pm-7pm shift. Documentation (463, 54%) is the most commonly interrupted task. Medication preparation and administration (166, 20%) was the next most commonly interrupted task. These tasks are interrupted by clinical care or communication with another member of the health care team.
• Interruptions during documentation can be reduced by making the patient assessment chart available through the computer and allow nurses to record their notations, reducing time spent on nurse to nurse report.

There is significant concern regarding the interruption of medication preparation and administration.
• One recommendation is the use of signage to form a “no distraction zone” while preparing or administering medication. “No distraction zone” units have observed a reduction in adverse events.

Future Directions
• Distinguish between positive and negative interruptions.
• It is important to mention that 687 of 863 (80%) interruptions were handled by the nurse. A system of collaborative work should be established between Registered Nurses and Patient Care Technicians to productively and efficiently care for the patient.

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