

Medication administration processes: change the game and put some respect on it



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Background

- Nurses in post-acute practice environments experience frequent interruptions and distractions during medication administration while medicating a high volume of patients in a single medication pass.
- Interruptions and distractions are major threats to human performance and patient safety.
- The Medication administration process (MAP) is deemed the most interrupted nursing task globally and entails pre-administration, medication administration, and post-administration².
- Due to the high prevalence of interruptions and distractions, MAP must be examined to design meaningful data-informed interruption management interventions

Purpose

The purpose of the DNP scholarly project was to examine the prevalence of interruptions and distractions during medication administration processes in a post-acute care practice environment and nurses' likelihood of adopting EBP interventions.

Methods

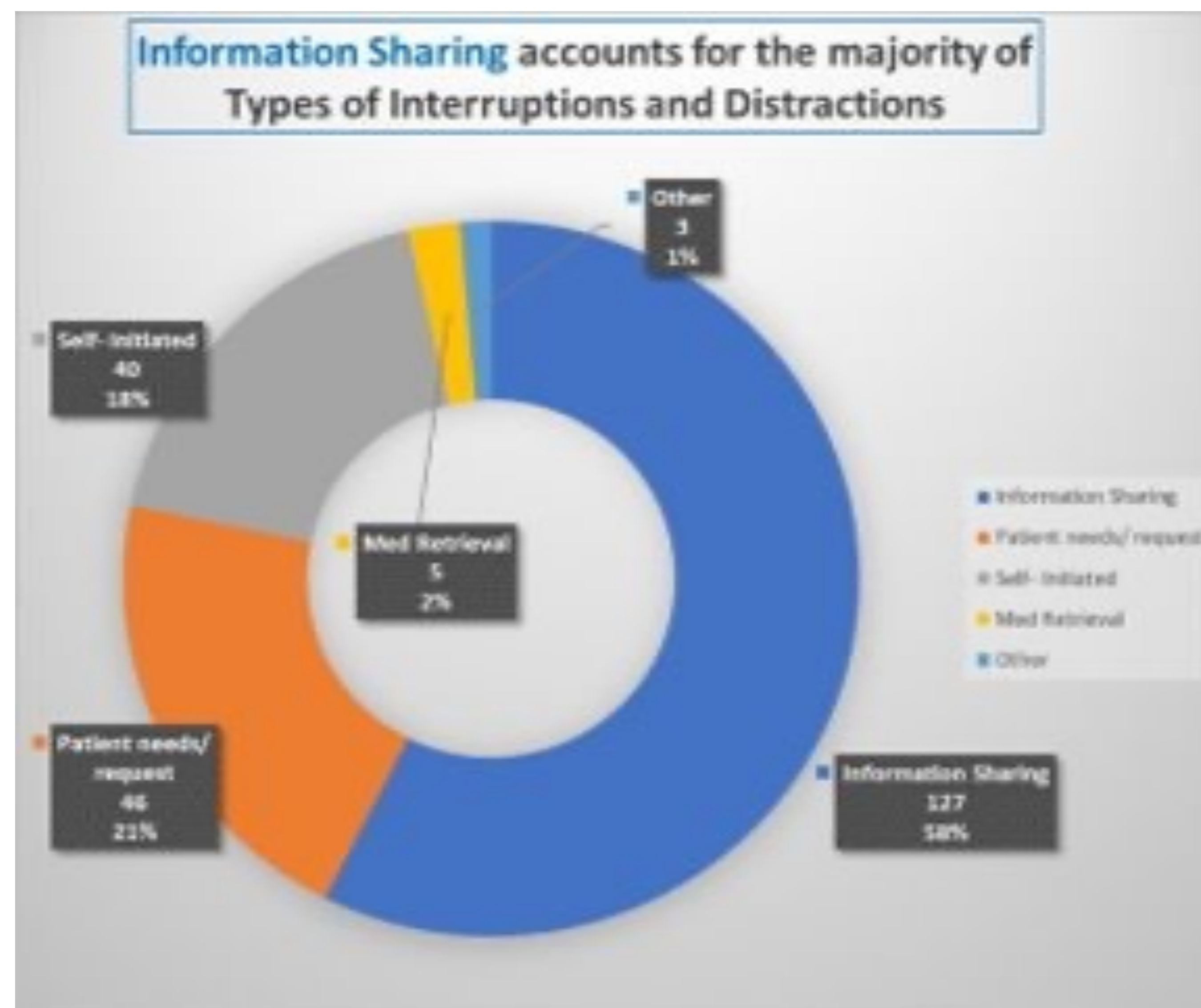
- Design:** The research project utilized an observational quasi-experimental design to examine the prevalence of sources and types of interruptions and distractions during MAP in a 99-bed post-acute setting for six days.
- Setting:** 99-bed post-acute care setting
- Sample:**
- Intervention:** The Evidence-Based Practice Attitude Scale (EBPAS) -15-item tool (Aarons, 2004) was utilized as a pre-test and post-test to examine nurses' likelihood of adopting EBP interventions based on EBPAS constructs requirements, appeal, openness, and divergence after an EBP educational intervention was administered.
- Analysis:** Analysis: A paired t-test reflected there was no significance between the pre- and post-intervention after an EBP educational intervention was performed and as measured by the EBPAS tool. However, the study findings reflected a p-value of one indicating no change in the pre-and post-intervention administration of the EBPAS. There was no change in the requirements (supervisor required, state required) construct.

Results

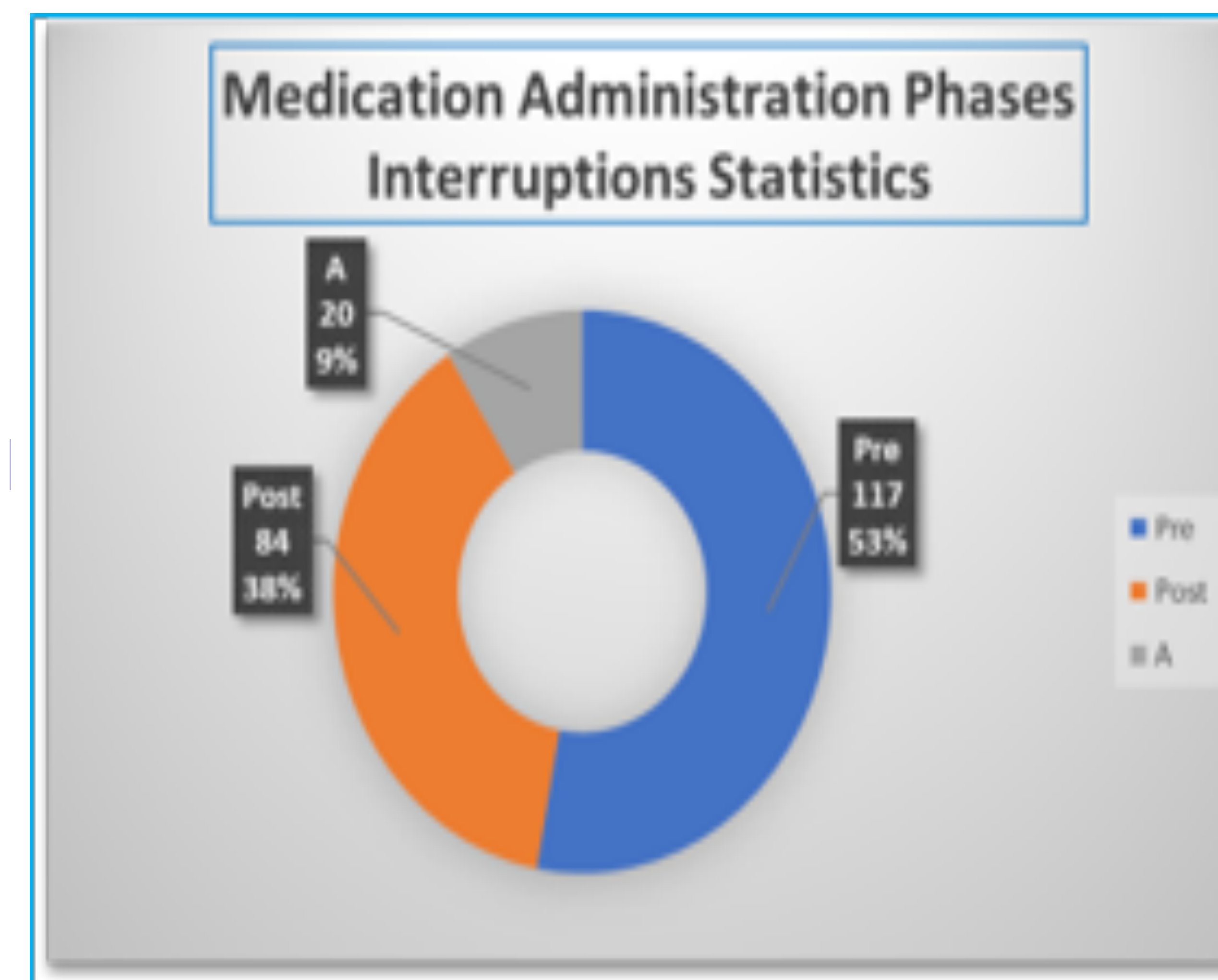
MAP was observed for a total of 1480 minutes with 221 interruptions and distractions noted during 154 medication administrations. The study findings reflected 69.6% of the 154 medication administrations were interrupted.

| Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 |
|--|-------------------------|-------------------------|--------------------------|--------------------------|-------------------------|
| 3-11 Shift Weekday | 7-3 Shift Weekday | 7-3 Shift Weekday | 3-11 Shift Weekend | 11-7 Shift Weekend | 7-3 Shift Weekend |
| Total number of interruptions per shift | | | | | |
| 17 | 18 | 17 | 52 | 23 | 94 |
| Total number of medication administrations per shift | | | | | |
| 25 | 25 | 12 | 39 | 25 | 28 |

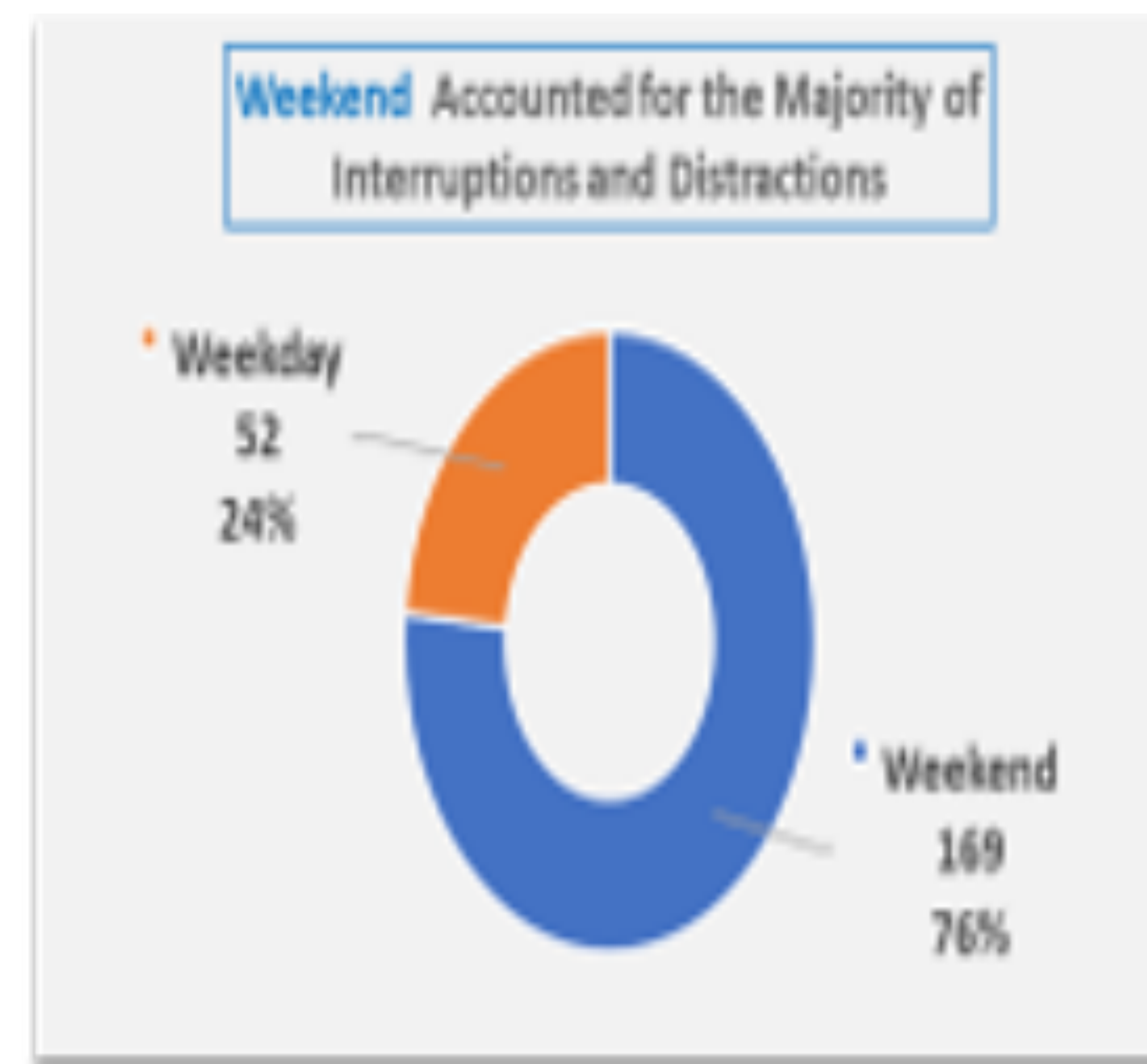
Information sharing (both patient, and non-patient related) accounted for 58% of the interruptions and distractions



The pre-administration phase (preparation) was the most interrupted phase, followed by the post-administration and administration phases.



Weekend shifts accounted for the majority of interruptions and distractions at 76% (n= 169) and weekdays accounted for 24% (n=52)



Conclusion:

- Pre-administration and medication administration are nursing tasks that require attention and precision to prevent possible patient harm, hence, to fully respect MAP, avoidable interruptions and distractions should be minimized.**
- Interruptions can be categorized as whom, where, when, and what to enable practice environments to identify trends and patterns and develop intervention strategies to address MAP interruptions.**
- The high frequency of interruptions and distractions during MAP suggests a lack of understanding of and respect for these important processes and the possible detrimental effects of interruptions on patient safety.**

Implications

- Organizational leadership is critical to improving the quality of the medication administration processes, as medication safety will not evolve without a strong leadership emphasis on patient safety.
- Holistic medication safety practices warrant a multi-disciplinary approach, interruption management strategies, and should be reflected in interdisciplinary organizational policies.
- Nurses should inform team members when beginning MAP.
- Include protected medication administration time and interruption management strategies in medication administration policies.
- Educate all multidisciplinary staff annually and PRN on the potential effects of medication administration interruptions and distractions and emphasize medication administration safety is a team approach.
- Organizations must re-envision patient safety by respecting and protecting medication administration processes.

Limitations

- Time constraints due to delayed IRB approval contributed to a 6-day data collection process, limited data analysis time, and insufficient time between the pre-and-post-EBPAS administration and the educational intervention
- Lack of pilot data and one person collected and analyzed all project data
- COVID-19 implications on facility processes

Key References

