Nursing Student Medication Errors: A Need for Change in Teaching Methods

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Introduction

• Newly graduated nurses are expected to be proficient in independent MA
• Students are seldom provided opportunities for independent practice of MA
• Independent practice can be offered in safe settings like simulation
• Systems issues are common in healthcare environments and increase risks for medication errors
• Systems issues, such as interruptions, are seldom addressed adequately or routinely in prelicensure nursing curricula

Methods

• Within-subjects/cross-sectional design
• Two-site study - East and Midwest US universities
• Individual simulation - required independent MA to two patients
• One MA condition was interrupted; other MA condition was uninterrupted
• Quantitative data on MAEs collected via direct observation
• Qualitative data collected via semi structured interviews during debriefing sessions

Sample

• Senior baccalaureate nursing students
• Convenience sample - 36 participants
• 94.4% Female; 75% Caucasian
• Ages ranged between 21 and 51 years; median age 23 years

Quantitative Results

30.6% participants made at least one MAE
26 total MAEs made
72.7% made multiple types of MAEs
No significant difference (p=0.713) between interrupted and uninterrupted conditions

Frequency of Medication Administration Errors by Type (N=26)

Wrong Documentation (46.2%)
Wrong Dose (26.9%)
Wrong Time (15.4%)
Wrong Route (11.5%)
Wrong Drug (0%)
Wrong Patient (0%)

Qualitative Results

Participants reported:
• the study provided their first opportunity for independent MA
• lack of independent practice and the interruption led to making errors
• they rechecked the entire medication process after the interruption ceased
• a need for education/practice with interruptions

Recommendations

• Deliberate practice (Owen et al., 2017) of independent MA in safe, realistic settings such as simulation
• Inclusion of systems factors, such as interruptions, in teaching methods (Latimer, et al., 2017)
• Scaffold systems factors into various educational modalities used to teach MA
• Research on pragmatic strategies to manage interruptions

Conclusion

• Changes needed in MA teaching methods
• Students require opportunities to engage in safe deliberate independent practice with MA
• Interruptions and other systems issues should be incorporated into teachings/simulations to better prepare students for complex work environments
• Evidence of how interruptions can be managed both safely and pragmatically is warranted

References


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