

A Nursing Education Program Incorporating an Interprofessional Approach to Reduce Medication-related Falls and Promote Patient Satisfaction

Marilyn Lopez, DNP, RN, GNP-BC

Background & Significance: Nurses play an important role in reducing patients' fall risk by identifying common medications associated with increased fall risk, educating patients and collaborating with care providers to address medication side effects associated with falls. There were organizational educational gaps identified in assisting nurses to recognize and mitigate medication associated side effects that may predispose hospitalized older adults to a fall.

Clinical Questions: 1. How effective are nurses in an inpatient medical unit, after a nursing educational program focused on medication fall safety, as compared to current standard fall education, in recognizing and mitigating medication fall risk, and decreasing falls, from admission to discharge? 2. In hospitalized older adults 65 years and older, how effective is receiving care from nurses that have received training on medication fall safety, as compared to receiving care from nurses without such training, to improve communication about patient medication satisfaction on a medicine inpatient unit, from admission to discharge?

Evidence: A meta-analysis (2016) level I evidence found the most effective nursing hospital educational interventions to increase medication safety is a blended learning program ($p < 0.05$). A systematic review (2020) level I evidence suggest there is a high prevalence of a fall-injury in older adults who are using antidepressants and sedative-hypnotics (65%-93%). Case Controls (2017, 2018) level IV evidence found patients with joint replacements; psychotropic agents; the male sex; history of a fall were significantly associated with an injurious fall. Patients prescribed two high-risk medications were 3.4 times more likely to fall during hospitalization. Retrospective cohorts (2015, 2019) level IV evidence found statistical significance with high-risk medications in older adults with opioids for all adverse hospital events (OR, 2.08; 95% CI, 1.95–2.23). Fall injuries were also the leading diagnosis for hospital readmissions in medicine (12.1%) compared to surgery (7.2 %), especially for at-risk older adults discharged home. Qualitative research studies (2018, 2019) level VI evidence included grounded analysis interviews and focus groups that found nurses restricted patient's mobility in order to meet zero harm which can contribute to negative consequences. Another study suggest older adults have a low perception of falls and report limited information about their falls and care transitions.

Intervention Implementation: Eighty registered nurses (RNs) completed an eLearning module that included patient and family centered evidence based guidelines and teach-back guides related to medication fall safety.

Evaluation: A non-experimental quality improvement descriptive design. The Research Electronic Capture survey was used with a pre, post survey 1, and post survey 2, four weeks after module completion. Fall rates, including injury falls, and patient satisfaction score were trended.

Results: Eighty-one percent of RNs completed the module and obtained >80% passing scores on a post knowledge test. Nurses' confidence in recognizing and mitigating medication fall risks was 87% in the pre-survey and increased to 98.3% in the post survey 1, and 100% in post survey 2. There was a decrease (13%) in patient falls who were at a higher risk (Morse fall score =85) versus pre implementation (Morse fall score=65). Furthermore, an increase (2.2%) in patient overall medication satisfaction scores.

Significance/Conclusion: There was improvements overtime with nurses' knowledge on medication fall risks, and confidence with medication fall safety patient teach-back in hospitalized older adults. Future quality improvement initiatives would benefit from a longer evaluation period. Barriers included time constraints and other educational competing priorities.