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Staff Education of Fall Prevention Intervention in the Emergency Department

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College of Nursing

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Jonathan Jaramillo

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Executive Summary: Staff Education Project
Staff Education of Fall Prevention Intervention in the Emergency Department
by
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Executive Summary Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Nursing Practice

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Summary

This Doctor of Nursing Practice (DNP) project was a staff education intervention aimed at reducing patient falls in the emergency department (ED). The gap in practice at the project site was that patient falls continued to occur despite the use of fall risk screening tools, indicating inconsistent staff knowledge and confidence in identifying fall risk, implementing prevention strategies, and responding to fall events.

I conducted this DNP project to determine whether educating ED nursing staff with a targeted fall prevention staff education intervention improves their knowledge, confidence, and intent to implement what they have learned. The analyze, design, develop, implement, and evaluate (ADDIE) model guided the project. I created an evidence-based PowerPoint presentation and administered a pre- and posteducation survey consisting of knowledge-based, multiple-choice questions and a Likert scale item measuring confidence. Results demonstrated that from the pretest to the posttest, participants' knowledge improved from 26.7% to 80%, their confidence improved from 2.67 to 3.6, and their intent increased from 33.3% to 86.7%.

This DNP project has several implications for nursing practice. The project promotes positive social change for staff because, with stronger knowledge, they will be better equipped to assess fall risk and implement fall prevention measures. This should result in better clinical decision making and fewer falls in the ED, thereby improving the organization and creating a safer environment for patients. The project supports diversity, equity, and inclusion by reducing preventable harm among vulnerable patient populations and promoting safer and more equitable emergency care outcomes.

Background

Falls are a common occurrence in healthcare settings and are frequently associated with predictable risk factors, such as infirmity and frailty associated with older age (Waszczeniuk et al., 2022). Despite system-wide efforts to reduce patient falls, they remain a significant patient safety concern in the project site ED. McErlean and Hughes (2017) stated that the ED is a high-acuity, fast-paced, crowded, and unpredictable environment, making fall prevention challenging.

Data show that between 700,000 and 1,000,000 people fall in health care facilities annually in the United States, resulting in 250,000 injuries and up to 11,000 deaths (Agency for Healthcare Research and Quality, 2024; Centers for Disease Control and Prevention, 2020). These falls are not only a safety issue but also contribute to increased hospital readmissions (Cook et al., 2020; Gettel & Goldberg, 2020) as well as morbidity, mortality, and treatment costs (Gettel & Goldberg, 2020). Cook et al. (2020) estimated that the annual Medicare costs for older adults who fall in the ED are \$31.3 billion, and these costs are expected to increase as the population continues to age.

Unlike other areas within healthcare settings, the ED frequently manages patients in acute and hyperacute stages of physical and mental illness as well as intoxication, which further increases fall risk (McErlean & Hughes, 2017; Waszczeniuk et al., 2022). The clinical condition patients present with, combined with environmental factors, contribute to a persistent gap in effective fall prevention practices.

Fall prevention strategies in the ED are typically designed to mirror inpatient efforts (Muray et al., 2018). However, the risks and characteristics of falls in the ED differ from those in the inpatient setting (McErlean & Hughes, 2017). More often than

not, assessments of fall risk factors in inpatients fail to adequately assess fall risk in the ED setting (Waszczeniuk et al., 2022). Therefore, this unique healthcare environment requires interventions tailored to its specific needs and challenges (Townsend et al., 2016).

In the ED where this DNP quality improvement project was completed, the fall rate was high, averaging about 4.68 falls per month over a 19-month period, according to the hospital's data warehouse. A total of 84 falls were sustained during that period, resulting in seven surgeries and two fatalities. Despite the use of fall risk screening tools, falls persisted, indicating a gap in effective fall risk identification and prevention. This gap suggested that staff knowledge, confidence, and consistent application of fall prevention strategies required strengthening. A targeted staff education intervention was identified as a necessary approach to improve fall prevention practices and enhance patient safety in the ED.

The project was guided by the following practice-focused question: In ED nursing staff, does a targeted fall prevention staff education intervention improve knowledge, confidence, and intent to identify fall risk, implement evidence-based prevention strategies, and respond appropriately to patient falls? Evidence has shown that ED-specific fall prevention strategies, including staff education, patient education, environmental adaptations, the use of assistive devices, and context-appropriate assessment tools, improve the recognition of fall risk and adherence to prevention interventions (Morris et al., 2022; Sato et al., 2018). These studies show that these strategies improve staff knowledge, safety behaviors, and patient outcomes.

In addition, the evidence supporting staff education as an effective fall prevention strategy in the ED is strong according to specific prevention strategies. The literature supports the effectiveness of multifactorial interventions, including staff education, risk assessment tools, environmental modifications, and communication strategies, in reducing fall risk and improving patient safety outcomes (Cook et al., 2020; Morris et al., 2022). Although the ED presents several unique challenges compared to other areas in the healthcare setting, evidence suggests that targeted educational interventions are the most effective strategy for improving fall prevention behaviors and safety culture (Ong et al., 2021; Stoeckle et al., 2019; Ximenes et al., 2021).

Staff Education Project Development

I developed and implemented this staff education project using the ADDIE instructional design model. In practice, the ADDIE model provides a flexible guideline for creating effective training and performance support tools (Lasky, 2024). The model consists of five steps: The first is analysis, which in this case, involved assessing the practice gap. The data collected from the healthcare organization showed that the ED recorded the highest number of falls (averaging about 4.68 per month over the last 19 months) compared to any other department. Despite the use of risk assessment and fall prevention tools, falls continued to occur. The design phase involved developing learning objectives, creating lesson plans, and designing the pre- and posttests (see Appendix A). The third phase is development in which I developed the evidence-based education content in the form of a PowerPoint presentation and organized a breakfast with the staff. The implementation phase involved delivering the education session during the

scheduled, in-person breakfast meeting. The session included a 20-minute structured presentation on fall risk factors, assessment tools, and evidence-based prevention strategies relevant to the emergency care environment. The last step was evaluation. Before and after the presentation, I had participants complete a survey comprising knowledge-based, multiple-choice questions; an intent question; and perception-based, Likert-scale items.

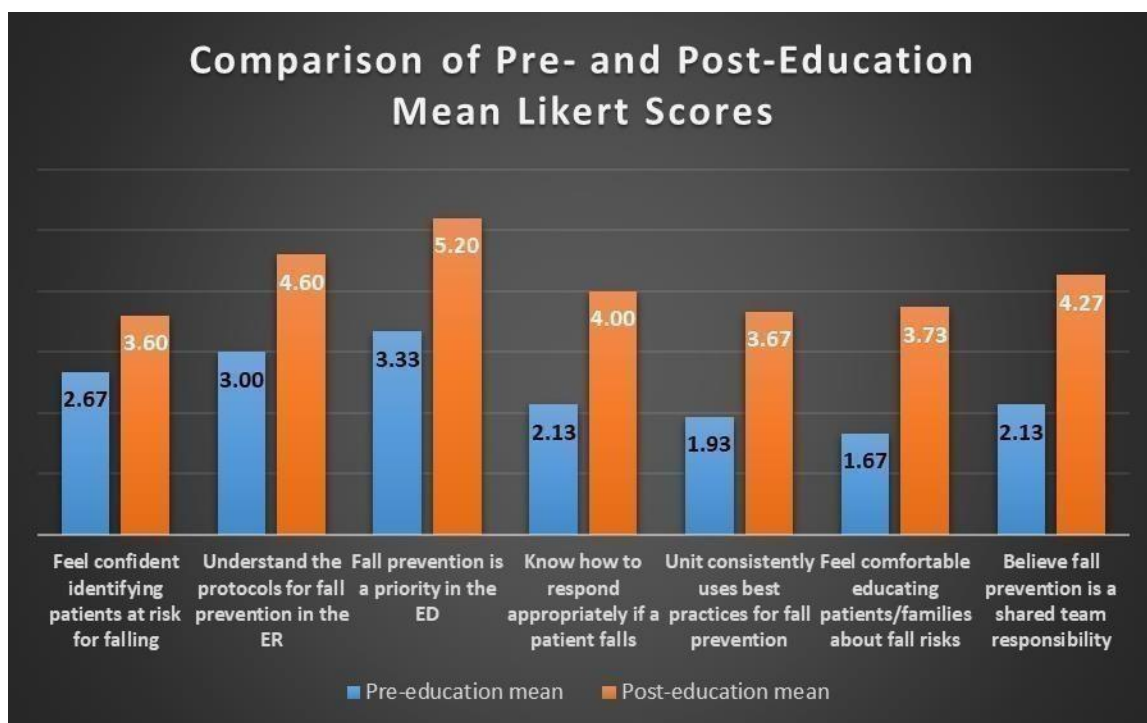
Results

There were 15 participants (i.e., 8 from the day shift and 7 from the night shift) who were registered nurses and support staff. Presurvey results revealed gaps in staff knowledge, confidence, and intent regarding fall risk identification, prevention strategies, and responses to fall events. Postimplementation results demonstrated improved staff knowledge, increased confidence, and greater intent to apply evidence based fall prevention strategies in the ED. The pre-survey knowledge score was 26.7%, and it increased to 60% posteducation. These results indicate that the educational intervention had a positive impact on staff knowledge.

Analysis of the participants' Likert-scale responses demonstrated a significant increase in staff confidence. Participant confidence increased from 2.67 preeducation to 3.6 posteducation. Participants' intent to incorporate these fall prevention strategies into practice increased from 33.3% to 86.7%. In addition, analysis of the seven Likert items showed that all postsurvey mean scores were higher than the presurvey scores, reflecting a significant improvement in understanding of the protocols, which fall prevention is a priority, and how to respond (see Figure 1).

Figure 1

Pre- and Posteducation Mean Likert Scores



Based on these findings, the project had a positive impact on the organization because it strengthened staff knowledge, confidence, and intent. The content reinforced standardized fall prevention practices and promoted a culture of patient safety. These findings suggest that ED staff now have the knowledge to implement fall risk assessments and evidence-based fall prevention interventions.

Although positive results were observed, this implementation had several limitations. The project was implemented over a short time frame, limiting the ability to measure long-term outcomes, such as sustained behavior change or reductions in patient fall rates in the ED. The evaluation relied on self-reported knowledge, confidence, and intent rather than objective clinical outcome data. Additionally, participation was limited to staff members who were present during the scheduled breakfast education session. Due to shift variability, workload demands, and staffing constraints common in

emergency care settings, not all ED staff were able to attend the presentation or complete the survey. While those who attended are more likely to screen and implement fall prevention, not all staff received the education. Lastly, the use of knowledge-based, multiple-choice questions and Likert-scale items may not fully capture the real-time application of fall prevention strategies in practice.

The significance of this project extends beyond the local ED setting because patient falls remain a persistent and widespread safety concern across EDs nationally and globally. Emergency rooms share common challenges, including high patient turnover; overcrowding; time-sensitive decision-making; and frequent exposure to high-risk populations, such as older adults (Kelekar et al., 2021).

This project demonstrates that brief, targeted staff education interventions can effectively improve knowledge, confidence, and intent related to fall prevention. I recommend that all ED staff receive the education. In addition, the educational framework, survey tool, and implementation strategy used in this project can be adapted and replicated in other EDs, urgent care centers, and acute care settings seeking to strengthen fall prevention practices.

Conclusion

This staff education project demonstrated that a targeted educational intervention could improve ED staff knowledge, confidence, and intent related to fall prevention. Based on the findings of this project, I have several recommendations. Fall prevention education should be offered regularly to ensure that all ED staff, including new hires and per diem staff, receive consistent training. Incorporating fall prevention education into staff orientation and annual competency reviews would support sustainability. Future

evaluations should include objective outcome measures, such as analysis of fall incidence rates, near-miss reports, and compliance with fall risk assessment documentation, to better assess the long-term impact of the intervention. Additionally, I recommend leadership support to support fall prevention initiatives through adequate staffing, availability of assistive equipment, and consistent use of visual identifiers and communication tools.

This DNP project has several implications for nursing practice. The project promotes positive social change for staff, because with stronger knowledge, they will be better equipped to assess fall risk and implement fall prevention measures. This should result in better clinical decision-making and fewer falls in the ED, thereby improving the organization and creating a safer environment for patients. The project supports diversity, equity, and inclusion by reducing preventable harm among vulnerable patient populations and by promoting safer, more equitable emergency care outcomes.

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