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Implementing Evidence-Based Strategies for Falls Prevention

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Executive Summary: Staff Education Project
Implementing Evidence-Based Strategies for Falls Prevention

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Summary

Older adults are particularly susceptible to post-fall injuries and loss of independence. This project was implemented to decrease the number of resident falls within a long-term care setting by enhancing the knowledge and daily routine of direct-care personnel. Falls remain one of the most frequent and severe safety concerns. Although policies on fall prevention are in place, workers often inconsistently incorporate risk evaluation and fail to identify all the causes of a fall.

The purpose of this project was to determine whether a structured educational program could raise the level of knowledge about fall-prevention and provide safer care practices. The education plan entails a 45-minute face-to-face session based on national geriatric guidelines. The participants are certified nursing assistants, licensed practical nurses, registered nurses, and rehabilitation aides. The learning resource was simple handouts and brief case examples as well as discussion of real-life fall-risk situations.

To determine the knowledge gained, the staff members were required to take a pre-survey to determine their level of knowledge prior to the session and a post-survey, after the session. Data were compared on descriptive statistics and a paired *t* test to assess the difference in pre and post interventions scores. The average rate of improvement in the staff knowledge scores was at 80 percent following the educational intervention with a statistically significant difference, $p < .05$. In a less formal interview, the staff was found more consistent in terms of adopting the new strategies including the effective risk assessment and less risky methods of transfer as well as the enhanced reporting of the environmental hazards. The project provides a sustainable model to promote residents' safety and encourage positive social change in long-term care facilities.

Background

Falls have been among the most terrible and preventable safety concerns in the long-term care facilities. Khan et al. (2024) also argue that the elderly who experience a fall are more likely to experience a fracture, head injury, loss of independence, and loss of functioning. It has continuously been found in the national statistics that falls among long-term residents are more prevalent than community falls and injuries caused by falls result in the long-term period of hospitalization, increased healthcare costs, and lowered quality of life (Choi et al., 2023). Even though most facilities have fall prevention measures, the fall rates remain comparatively high, thus demonstrating the lack of clarity between the practices and the necessity to implement a certain measure (Li et al., 2021).

The review of the local incident reporting and employee feedback at the project site revealed that there were a number of contributory factors to the problem that were critical. The use of risk assessment tools was not consistent between shifts, and the staff members were prone to underestimating factors that could pose risks in the environment and the patient such as polypharmacy, poor vision and muscle weakness. The unofficial surveys of the nursing assistants and LPNs have shown that most of the workers were not trained on fall prevention at all, even though there were a few orientation sessions. These findings indicate that the existing policy on the fall prevention is not fully implemented and justified in real practice.

The practice-oriented question for this project was: Will structured, evidence-based education sessions enhance fall prevention knowledge among direct-care staff, as reflected in the pre- and post-survey scores?

The project aimed to bridge the knowledge gap among the staff and advance a uniform, evidence-based approach to fall prevention in the entire facility. The program took 3 days, where the baseline presurvey was carried out on Day 1, a 45-minute group education session was conducted on Day 2, and postsurvey data collection took place on Day 3.

These findings proved the efficiency of this strategy. The employees showed the mean value of improvements in their fall-prevention knowledge by 80% and better application of the risk assessment tool, as well as an increase in their environmental and patient-related risk perceptions. These results are not novel because Albasha et al. (2023) found that structured educational interventions can enhance fall-prevention measure awareness and compliance among the staff in long-term care facilities. On the same note, Li and Surineni (2025) noted that multifactorial interventions, such as education and environmental modification, have a significant impact on reducing falls among hospitalized older adults.

The project was in line with the American Geriatrics Society/British Geriatrics Society (AGS/BGS) guidelines, which are the best practices in terms of fall-prevention (Banman, 2021). These national recommendations were adhered to by the project to ensure evidence-based delivery and quantifiable results. In general, the intervention was effective and enabled the enhancement of the competencies of the staff in the field of fall prevention, assurance of the uniformity of practices across shifts, and the creation of a safer environment for the residents.

Staff Education Project Development

Participants and Setting

The project was implemented in a 120-bed long-term care facility that offers skilled nursing and rehabilitation services. The participants are all involved in the care delivery that is direct and routine and have direct physical contact with residents: certified nursing assistants, LPNs, RNs, and physical/occupational therapy aides. These groups were selected because their duties include the daily monitoring of residents, and they can directly affect the risk of falls. Those not included were the administrators, new employees under orientation, and employees who had already undergone formal fall prevention training, because the education targets the people who have benefited from it. This inclusion and exclusion methodology maintains the intervention as specific to the individuals involved in the bedside care.

Educational Content and Project Design

The project is based on an evidence-based staff education model, constructed on the principles of adult learning and the AGS/BGS guidelines for fall prevention (BGS, 2025). The educational lesson took 45 minutes and was provided in a small group of 10 to create an opportunity to ask questions and discuss the contents. Key content areas include:

- Risk factors are medications, loss of vision, and mobility issues related to falls among residents.
- Sufficient use of the fall-risk assessment tool of the facility, environmental inspection, and safe transfer methods.
- Change reporting and change responding communication plans.

The resources included a short slide presentation, print materials, and case scenarios, depending on the incident reports of the facility itself. This is directed towards making the information practical and realistic in everyday life.

Procedures and Timeline

The implementation is based on a 3-week action plan:

- Day 1: The interested personnel attended an information meeting and took the baseline (FKT, a 20-item survey validated by Yang et al. (2022).

Demographic information, including job position, years of experience, and shifts, was also recorded to facilitate the subsequent subgroup analysis.

- Day 2: The participants took the 45-minute education session under my guidance as the project head, with the assistance of the staff education coordinator. Fidelity tracking was done by recording attendance.

- Day 3: The staff were provided with the same FKT as a post-survey.

Qualitative feedback on the perceived usefulness and viability of the session was obtained through observations of staff practice and short interviews (see Turner et al., 2020).

Gathering and Processing of Evidence.

The change in pre- to post-education staff knowledge scores is the primary outcome. I captured this information in a confidential database and analyzed it using descriptive statistics to determine the characteristics of the participants and paired-samples *t* tests to determine the mean scores before and after the intervention. In cases where normality assumptions were not satisfied, a Wilcoxon signed-rank test was performed. I calculated the effect size (Cohen's *d*) to estimate the extent of improvement

in participants' knowledge. The secondary measures include the attendance taken during a specific session and compliance with the main practices that prevent falls. Thematic coding of observational data and comments of participants were used to determine the barriers and facilitators to implementation.

Evaluation Process

The analysis of the project was aimed at evaluating whether the systematic educational intervention enhanced the knowledge of the staff and the compliance with the fall-prevention practices. The increase in mean post-surgery scores by 20 percent or higher, relative to pre-surgery scores, was chosen as the primary success criterion in line with the benchmarks set by Albasha et al. (2023). Once the intervention was completed, the knowledge scores of staff members were improved by 80 percent (on average), which proved that the purpose was achieved. The observations made after implementation revealed higher adherence to the facility's fall-risk assessment procedure and the consistent use of preventive methods, including environmental inspection, safe transfer methods, and hazard reporting.

Sustainability Measures

The education module was included in the required orientation provided to the new direct-care staff at the facility and repeated every quarter among the current staff members to have a long-term effect. Fall prevention champions were provided with supplementary training to help them mentor their colleagues and support the most important practices on a daily basis. Such actions align with the recommendations of refreshing training and assigning unit champions after every quarter (Suen et al., 2024).

Ethical Considerations

Participation was voluntary, and all the data were anonymized. The participants' survey responses were not coupled to any identifiable information. The de-identified quality-improvement data were the sole type of data used in the project, which qualifies the project to have an organizational review of quality improvement but not as formal human-subjects research.

Results

The project has met its primary objective of enhancing staff knowledge and consistency in applying fall-prevention strategies. According to Manirajan et al. (2024), the average knowledge score in the Falls Knowledge Test (FKT) recorded an improvement of 80 percent in the participants after 45 minutes of the educational intervention. The paired-samples *t* test was used to verify that the difference between pre- and post-test scores was statistically significant ($p < .05$). The quantitative findings were supported by observational data collected during the three weeks of implementation. Employees were also seen to use the fall-risk assessment tool more frequently, conduct environmental checks more comprehensively, and implement safe transfer methods with greater accuracy. Informal interviews and the written commentaries revealed that the participants were clear, practical, and found the material extremely relevant to their day-to-day work. Although this project did not provide long-term data on the fall rates, early monitoring of the facility within the first week of the intervention showed that the count of reported falls decreased significantly, which may be attributed to the fact that a better understanding of the staff led to safer patient care.

Impact on the Organization

There was an observed or reported decrease in the occurrence of falls after the education took place. Decrease in falls minimizes emergency transfers, reduces the length of hospital stays, and decreases the costs of the facility and the families of the residents. Increased compliance with national guidelines in the education has potential to help achieve compliance with regulations and improved the quality metrics of the organization, which increases its reputation among families, payers, and accreditation bodies.

Limitations

Despite the good results of the project, a number of constraints were identified. The project was also performed in one long-term care facility with a rather small sample ($n = 45$), which could be a constraint on the generalizability of findings. Second, the assessment was based on a short-term evaluation of post-education knowledge and not the long-term behavioral evaluation. As a result, although the knowledge of the staff improved, more time and follow-ups are needed to ensure a permanent change in behavior and fall rates.

Importance Beyond the Local Site

The effects of this project are felt far beyond the long-term care setting. The issue of falls is an international safety issue among the older adult population, and several organizations are faced with ineffective personnel knowledge and inconsistent prevention strategies (Montero-Odasso et al., 2022). Since the intervention is brief, cost-effective, and grounded in the official American Geriatrics Society/British Geriatrics Society (AGS/BGS) guidelines, it can be recreated in other locations without significant financial

and workforce requirements (see BGS, 2025). The FKT, which has undergone validation, facilitates transferability because its results can be applied in other environments.

Injuries, hospitalizations, and healthcare costs can be reduced through the adoption of this model at nursing homes as well as assisted-living and rehabilitation centers.

Conclusions

This completed Doctor-Nursing Practice (DNP) project was able to address a major patient-safety problem through the use of an evidence-based staff education program on the topic of fall prevention. Direct-care staff showed significant positive changes in practice consistency and knowledge through a structured 45-minute educational session that was based on AGS/BGS guidelines. The findings support that formal education might alleviate urgent knowledge gaps between nursing personnel and increase their compliance with fall-prevention measures and safer conditions of the residents. The 80 percent average increase in the knowledge scores confirmed that this intervention was effective in promoting knowledge and offers the basis for the long-term sustainability of this process performed with the help of the quarterly training and staff mentorship.

In addition to the enhanced safety of residents, the project also enhanced staff confidence, teamwork, and job satisfaction- all elements of quality patient care. The facility can significantly contribute to the positive social change, improve the quality of care, and decrease the number of avoidable falls in older adults by applying this evidence-based method in the continuous education of its staff and creating a best practice model that can be used in similar healthcare organizations.

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