

Fall Prevention

Claire Zumbahlen, Hannah Morfey, & Jillian Kurtz

Lakeview College of Nursing

N443: Leadership and Management

Eleni Key

04/09/2022

Fall Prevention

Falls can occur in any setting and are a significant issue that leads to adverse patient outcomes from injuries that occur when the fall takes place. Falls are the leading preventable injury in the hospital setting (Dykes et al., 2020). Implementing fall precautions leads to increased patient safety and satisfaction. Evidence-based practice shows that identifying patients at risk for falls and implementing fall precautions leads to decreased falls and improved patient outcomes.

Literature Review

Evaluation of a Patient-Centered Fall-Prevention Tool Kit to Reduce Falls and Injuries

Falls are sadly common events that can lead to morbidity and mortality. Falls are the leading cause of preventable injury in hospitals (Dykes et al., 2020). Falls can lead to complex injuries such as hip fractures, subdural hematomas, and death (Dykes et al., 2020). When injuries such as fractures occur, it can lead to a longer recovery than expected from when the patient was initially hospitalized. When patients experience falls, the damage can cost anywhere from 19,000 dollars to 32,000 dollars (Dykes et al., 2020). Falls cost the hospitals a large amount of money since falls are preventable; the Centers cannot reimburse the injuries resulting from Medicare & Medicaid Services (Dykes et al., 2020). Patients' falls and the injuries they experience are often directly related to the quantity and quality of nursing care the patient receives (Dykes et al., 2020). The injuries that are experienced due to the quality and quantity of care help hospitals and health care workers realize that most falls are preventable. Most hospitals use many different approaches to help reduce falls. There was a fifteen percent reduction in falls in this study after implementing a fall prevention tool kit (Dykes et al., 2020). The fifteen percent improvement shows a significant decrease in falls when fall prevention tools are utilized in the daily nursing

processes at hospitals. The tool kit worked with a three-step process which included assessing for fall risk, developing a personalized prevention plan, and executing the plan consistently (Dykes et al., 2020). When evaluating the fall prevention to rate, it was found that identifying and using interventions reduced the rate of falls and fall-associated injuries (Dykes et al., 2020). The decrease in falls shows excellent outcomes when identifying the patient and implementing the proper interventions to prevent falls. The study also suggested that a large part of helping reduce falls is engaging the patient and their family members in fall prevention planning (Dykes et al., 2020). When the patient feels included, it will help them follow the safety protocols in place, leading to improved quality of care and safety while the patient is staying in the hospital. The fall prevention kit is helpful to help prevent falls and the other injuries associated with falls.

Risk Factors for Falls in Hospital in Patients: A Prospective Nested Case-Control Study

Patient falls are a significant safety concern for many patients in the inpatient setting. Falls increase the length of stay costs and may end with serious injuries or even death (Najafpour et al., 2019). Research has shown that falls contribute to at least one other injury, and two to nine percent of falls end with the patient having severe injuries (Najafpour et al., 2019). When assessing falls, the first thing to consider is how to prevent falls. It is essential to identify high-risk patients. When identifying patients who have a high risk for falls, many things must be looked at, including the patient's age, gender, musculoskeletal issues, balance or lack of balance, visual impairments, urinary incontinence, or use of drugs (Najafpour et al., 2019). When looking at age risks, patients above eighty-five are four times more likely to have a fall than patients who are sixty-five to seventy-four (Najafpour et al., 2019). The increase of patients over eighty-five shows a correlation between age and falls. The study also showed that not asking patients about their history of falls leads to a large piece of missing information (Najafpour et al., 2019). When

Fall Prevention

patients fall once, they are likely to do it again for similar reasons, and the nurses should investigate the reasons for their previous falls.

Patients with balance issues who use assistive devices for walking are at a higher risk of falls, especially when using hospital assistive devices rather than equipment from home (Najafpour et al., 2019). Patients may also take pain medications, chemotherapy medications, antipsychotics, and antidepressants which can significantly contribute to falls (Najafpour et al., 2019). The nursing staff needs to identify those who are currently taking certain medications and be sure to put extra precautions in place for the patient's safety to prevent falls. In other studies, it was evident that patients with visual deficits are more likely to experience a fall due to lack of balance, low visual acuity, and loss of senses. Patients with eye impairments should use their glasses or contacts while in the hospital (Najafpour et al., 2019). When patients use their glasses from home, they can reduce the visual impairments that could lead to falls. Overall, this article has shown many different ways to recognize patients at risk for falls to implement the appropriate actions. Implementing fall prevention strategies leads to shorter hospital stays, better patient outcomes, and satisfaction.

Editorial: Evidence-Based Practices to Reduce Falls and Fall-Related Injuries Among Older Adults

Falls are a significant concern in the healthcare field. Falls are a leading cause of death in the elderly community. When the falls are not fatal, they lead to limitations, mobility issues, and loss of independence (Frieson et al., 2018). The consequences of falls can show how important it is to recognize and prevent falls. It is essential to identify if they are a fall risk in the clinical setting when assessing patients. Research on falls has found that fall prevention is not a "one size fits all" situation (Frieson et al., 2018). When realizing that fall prevention is not a size fits all, it

Fall Prevention

helps the health care system to look at ways to educate, screen, and prevent falls in those at risk with an individualized plan of care. When formalized systems and task forces are put into place, success, challenges, and lessons can be learned and expanded on to help prevent falls.

Fall Prevention Education for Staff in a Long-Term Care Facility

Older individuals living in long-term care facilities are more prone to falls when compared to those living in the community. Falls are predisposed by factors, such as age, escalating the incidence of death (Omola, 2022). The consequences of falls, including severe injuries, impact the patient, patient's family, and health care costs (Omola, 2022). Hospitalization in long-term care facilities is associated with the risk of patient falls, most commonly due to treatments, environmental unfamiliarity, and underlying conditions (Omola, 2022). Often fall prevention measures are not implemented correctly due to a lack of knowledge and skills by the facility staff. In the United States, 700,000-1,000,000 people are likely to experience a fall while in health care facilities, and about 50% of these cases will result in injuries (Omola, 2022). When staff and employees can better understand the impact of falls and their injuries, the prevention of falls and their interrelated complications will decrease. Falls' associated complications include pain, disability, serious injuries, functional impairment, or even death (Omola, 2022).

Implementing appropriate fall prevention resources for older patients will decrease morbidity, mortality, and higher healthcare costs related to falls. Several pieces of evidence have proposed solutions to reduce the incidence of falls. That evidence includes multifactorial treatment interventions, such as cognitive-behavioral therapy, medication management, modification of the environment, urinary incontinence management, nutritional therapy, and referral to pertinent older patient care services (Omola, 2022). Studies show that exercising three sessions per week for one year can minimize cases of falls in long-term care facilities along with implementing an

alert device stationed at both the patient's bed and chair, which will alert staff if the patient is trying to get up and is at risk of falling (Omola, 2022). The effectiveness of fall prevention education is not fully understood. However, the correct use of bed and chair alarms and the right prevention interventions will overall decrease falls.

Patient-Level Fall Risk Prediction Using the Observational Medical Outcomes

Partnership's Common Data Model

Falls are the most commonly reported accidents that threaten patient safety, resulting in significant injuries such as hip fractures, head injuries, and sometimes even death. Injuries from falls increase hospital stays by six to twelve days and increase medical expenditures by \$19,376 to \$32,315 (Jung et al., 2022). To overcome limitations, a standardized learning framework is being used to evaluate and attempt to predict inpatient fall risk in acute care settings (Jung et al., 2022). Observational Medical Outcome Partnership (OMOP) organizes patient data in different categories, including condition occurrence, procedure occurrence, drug exposure, observation, measurements, and visit occurrence or details (Jung et al., 2022). The patient information is then formatted into the model with additional data from the nursing notes, fall risk assessment, patient acuity assessment, and clinical observation sheets. This model was successful in that it decreased the occurrence of falls and transformed fall-related electronic health record data into the OMOP model, and developed fall risk prediction for acute care settings (Jung et al., 2022). The developed model was superior to other models. It screened acuity score, history of falls, age over sixty years, movement disorders, and central nervous system agents such as medications as necessary information when predicting variables for fall risk individuals (Jung et al., 2022).

Case Study

Falls are a common occurrence among the geriatric population. Various factors such as pain, obesity, decreased balance, living alone, effects of medication, and osteoporosis can lead to falls (Subramanian et al., 2017). Due to the commonality of falls in the elderly, physiotherapy was implemented for fall prevention. The population of the *Fall Prevention on a Geriatric Female with Physiotherapy* study focused on geriatric females in Indian healthcare. The study strived to evaluate the efficiency of physiotherapy on fall prevention measures with a clinical and functional prognosis of the subject (Subramanian et al., 2017). Using the morse fall prevention scale, they found a three-fold decrease in the risk for falls in those who used physiotherapy. The subject prevented falls without using pharmacological means and replaced them with physical exercises (Subramanian et al., 2017). Physical therapy measures are beneficial among the geriatric population. There was an improvement in fall prevention, and these subjects had an enhanced quality of life.

Synthesis

Practice:

Interventions set in place to prevent falls are categorized into environmental, educational, communicational, or nursing process interventions. Environmental interventions focus on creating a safe environment that includes a clutter-free room and vinyl flooring. Communicational interventions include visual alert signs, verbal communications, or electric alarm systems. Visible alert signs include yellow wristbands and fall awareness posters (Yunchuan et al., 2019). Nursing process interventions include the fall risk assessment, fall protocol implementations, and post-fall review/evaluations.

Education:

Staff and patient education on fall prevention are essential to the success of low fall rates. Staff is provided training for fall risk assessment tools. Education focuses on fall prevalence and consequences, causes of falls, hospital fall prevention strategies, and self-reflection of individual risk and goal-setting reviews (Yunchuan et al., 2019). Much of fall prevention education is geared towards the patients and their success.

Research:

For further study on fall prevention, nursing professionals need to take the initiative to educate themselves and their patients on ways to strengthen their muscles, so they are not weak. They also need to inform their patients about the consequences of falls (Yunchuan et al., 2019). Nursing administrators and managers need to consider multilevel factors associated with inpatient falls. Strong leadership, support, and appropriate prevention programs will benefit the patients and nurses in fall prevention.

Conclusion

Falls are frequent and prevalent in health care within the geriatric population. New evidence-based practice prevention strategies support nurses and patients, allowing for a downward trend in falls. Nurse and patient education are primary preventative measures for fall prevention improved patient outcomes. Environmental, communicational, verbal, and visual interventions are necessary to improve patient and nurse satisfaction.

References

- Dykes, P. C., Burns, Z., Adelman, J., Benneyan, J., Bogaisky, M., Carter, E., Ergai, A., Lindros, M. E., Lipsitz, S. R., Scanlan, M., Shaykevich, S., & Bates, D. W. (2020). Evaluation of a patient-centered fall-prevention tool kit to reduce falls and injuries. *JAMA Network Open*, 3(11). <https://doi.org/10.1001/jamanetworkopen.2020.25889>
- Frieson, C. W., Tan, M. P., Ory, M. G., & Smith, M. L. (2018). Editorial: Evidence-based practices to reduce falls and fall-related injuries among older adults. *Frontiers in Public Health*, 6(222). <https://doi.org/10.3389/fpubh.2018.00222>
- Jung, H., Yoo, S., Kim, S., Heo, E., Kim, B., Lee, H.-Y., & Hwang, H. (2022). Patient-level fall risk prediction using the observational medical outcomes partnership's Common Data Model: Pilot Feasibility Study. *JMIR Medical Informatics*, 10(3), 1–13. <https://doi.org/10.2196/35104>
- Najafpour, Z., Godarzi, Z., Arab, M., & Yaseri, M. (2019). Risk factors for falls in hospital in-patients: A prospective nested case control study. *International Journal of Health Policy and Management*, 8(5), 300–306. <https://doi.org/10.15171/ijhpm.2019.11>
- Omola, O. (2022). Fall prevention education for staff in a long-term care facility. *Proquest Dissertations Publishing*. <https://www.proquest.com/openview/0994d19f4d721146e217ebb4775e59f9/1?pq-origsite=gscholar&cbl=18750&diss=y>

Subramanian S.S., Rajesh, M.S., Hema, S., & Devi, S. (2017). Falls prevention on a geriatric female with physiotherapy: Evidence based case study report. *Case Studies Journal*, 6(5), 19-22. <https://ssrn.com/abstract=3418766>

Yunchuan, Z., Bott, M., He, J., Kim, H., Park, S., & Dunton, N. (2019). Evidence on fall and injurious fall prevention interventions in acute care hospitals. *The Journal of Nursing Administration*, 49(2), 86-92. <https://doi.org/10.1097/NNA.0000000000000715>