# Impact of Fall Education to Nursing Staff on Oncology Patient Fall Rates

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## **Author Note**

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I have no known conflict of interest to disclose.

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## **Impact of Nurse Education on Oncology Patient Fall Rates: Final**

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Scholarly Project Chair Approval:

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#### Abstract

Falls and fall-related injuries impact patients' health outcomes and are the most commonly reported adverse event in hospitals for patients over 65 years of age. This scholarly project was conducted to evaluate the effect of evidence-based education to the Registered Nurses and Certified Nursing Assistance in the medical and surgical oncology inpatient on reducing the number of patients falling. Retrospective reviews of patient fall rates, were conducted two months before the fall educational sessions, and prospective reviews were conducted after implementing fall education. Patient falls also affect reimbursement rates and, on average, increase a patient's length of stay by about 6.3 days and increase undue patient harm. Therefore, fall precautions and interventions must be addressed to help decrease inpatient falls. Implementing fall education and interventions aligns with national patient safety goals, is a costsavings topic related to possible decreased reimbursement rates, is aligned with the organization's strategic plan, and is considered a top-priority project. This scholarly project showed a statistical significance in knowledge gained about fall prevention and fall precautions when comparing the pre- and post-knowledge test given to the nurses and nursing assistants in the medical and surgical oncology units. However, this project did not show statistical significance in the fall rates pre- and post-education.

*Keywords:* fall, fall prevention, acute care, surgical oncology, medical oncology, oncology patients, oncology, fall education, national patient safety goals, reimbursement rates

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## **SECTION ONE: INTRODUCTION**

There has been an increase in patient falls on the inpatient medical and surgical oncology units at Portland Providence Medical Center. The unit's Quality Assurance Performance Improvement (QAPI) goal is to meet or exceed the rolling eight quarter's (quarter four of 2020 to quarter 3 of 2022) 25<sup>th</sup> percentile ranks according to the National Database of Nursing Quality Indicators (NDNQI) metrics. NDNQI's reports quarterly, and average the fall rates over eight quarters; therefore, the OAPI goal is to meet or exceed the 25<sup>th</sup> percentile's average rate by the end of 2023. Ending quarter three of 2022 the surgical oncology unit's score revealed 1.59 total patient falls per 1,000 patient days, and the medical oncology unit's score revealed 2.69 total patient falls per 1,000 patient days. The NDNQI 25<sup>th</sup> percentile rank ending quarter three of 2022 showed 1.30 total patient falls per 1,000 patient days or less for the surgical oncology unit, and 1.71 total patient falls per 1,000 patient days or less. Therefore, this unit is not meeting their QAPI goal for either unit, and an evidence-based intervention is needed to help the unit prevent more patients from falling and preventing more harm to patients. Therefore, I am going to conduct a quasi-experimental study to examine the effects of providing evidence-based fall education to Registered Nurses (RNs) and Certified Nursing Assistants (CNA), compared to preeducation fall rates.

## Background

Several evidence-based fall bundles have been shown to help reduce patient falls. These bundles include fall alarms, patient rounding, fall risk scales, mobility devices, environmental factors, medication management, proactive planning, and staff education modules (Chen, Liu, & Li, 2021; Scheidenhelm, Astroth, DeLong, Starkey, & Wolfe, 2020; Stockwell-Smith, et al., 2020). The hospital where the scholarly project was implemented has many fall-risk interventions; however, there is no standardization of interventions or education for the caregivers implementing fall prevention interventions, making it a non-standardized approach for patient fall prevention. The organization where the scholarly project was implemented already uses several fall risk interventions including the Morse Fall Scale, fall clinical practice guidelines (CPG) in the electronic health record (EHR), fall risk policies, bed and chair alarms, mobility assessments, and verbal patient education based on the nurse's patient assessment. Both units also have very active fall committee representatives who engage well in a hospital-wide fall prevention committee that meets monthly, disperses unit-wide education to nursing caregivers, performs random falls prevention audits, and helps with annual fall education at the unit's inservice education. However, caregivers are not adhering to the fall CPG and sometimes are unaware of the fall risk policy. This may be related to several new staff and the workforce turnover the hospital is experiencing; for 2022 the medical oncology unit had a total turnover rate of 14.60% and the surgical oncology unit had a turnover rate of 14.68%. Furthermore, no fall education is standardized and caregivers are not adhering to any evidence-based practices concerning fall interventions. Therefore, education regarding the fall CPGs, fall risk policy, and other evidence-based practices would be beneficial for translating evidence into practice.

#### **Problem Statement**

The increasing number of patients affected by falls on the medical and surgical oncology acute care units causes undue physical harm to patients while increasing moral distress, mental fatigue, and burnout in nurses; as well as placing financial burdens on an already stretched healthcare system.

## **Purpose of the Project**

The purpose of this project is to evaluate the effect of tailored fall education to oncology RNs and CNAs on fall reduction on the medical and surgical oncology acute care units. The education was based on the fall CPG, fall risk policy, and other evidence-based practices to decrease the fall rate of patients. The fall rate two months of pre-education was compared to two months after implementation of the fall education.

## **Clinical Question**

The clinical question is "What is the effect of fall prevention education to RNs and CNAs on the number of falls in the inpatient medical and surgical oncology units?" Participants included all oncology RNs and CNAs who worked on the inpatient medical and surgical oncology units who voluntarily agreed to participate in the study. The intervention was fall education based on the fall CPG, fall risk policy, and other evidence-based practices to decrease the fall rate of patients. Knowledge was assessed by using a pre-test based on the policy, fall CPG and other evidence-based practice guidelines, and the scores were compared to the post-test of the fall education to medical and surgical oncology RNs and CNAs.

## **PICO Question**

On the medical and surgical oncology inpatient units (P), what is the impact of educating oncology RNs and CNAs on fall prevention education (I) versus no education (C) at decreasing oncology patient's' fall rates (O) over a two-month period of time (T)?

#### SECTION TWO: LITERATURE REVIEW AND SEARCH STRATEGY

The ability to perform a literature review and synthesize the evidence is critical. When first starting the literature review it is imperative that the researcher defines the scope of the planned research and be able to narrow down the search parameters to find evidence that is pertinent to the review. Assessing the desired outcome before the start of the literature search will help provide clarity to the search and guide the researcher in the right direction (Murphy, Staffileo, & Foreman, 2018).

When defining the search strategy, the researcher must ensure that she learns key strategies for conducting a database search, as well as how to review the literature (Moran, Burson, & Conrad, 2020). A comprehensive literature search was performed via a database search. The database searched PubMed, ProQuest, and CINAHL. The key words used for the search included "fall education," "fall rate," "nurse," "hospital" or "hospitalization," "inpatient," "acute care," and "fall intervention." It is important when defining the search strategy to use key words, as well as narrowing down the search strategy to specific types of articles, dates, and inclusion and exclusion criteria. Boolean operators were also used, including "AND," "OR" and "NOT." Wildcards (\*) were also used, including "fall\*" "edu\*," "inter\*," "hosp\*, " and "nurs\*."

The search provided over 1,789 articles, which were then deduced to 60 articles that were reviewed, with 34 core articles that met the synthesis criteria. The date range of the articles was 2018 or newer, except for professional standards material.

A literature review appendix was organized based on the levels of evidence utilizing Melnyk's levels of evidence (Appendix A). The subject matter of the articles and their relevance to the project were considered for both fall risk education presented via video and other alternative methods. Any article that included information on fall education for patients or RNs related to fall rates were included. Articles related to evidence-based fall precautions and interventions were also included in the literature matrix. Furthermore, articles that were older than five years were excluded unless they were of primary evidence related to the project's topic. The articles included in the literature review were systematic reviews, literature reviews, research articles, case-controlled studies, qualitative studies and expert opinion. The number of each level of evidence are outlined in Figure 1.

## Figure 1

Levels of Evidence Table

Level of Evidence:	Number of Articles Used in Literature Review:
1	5
2	12
3	3
4	5
5	6
6	1
7	1

## Note. Levels of evidence table

## **Critical Appraisal**

Sixty articles were reviewed and a level of evidence was assigned for each. Thirty-four articles published in the last five years were included in the final synthesis. The articles within the search parameters showed a decrease in patient falls when implementing some sort of educational modality such as rounding, communication of risk factors, educational pamphlet, fall contract, multimedia education, or fall poster. There were also many articles discussing RN education to decrease falls, specifically use of fall shift huddles, staff meetings, e-modules, video education, repeat back methods, and fall prevention scales. Furthermore, there were many articles that showed a decrease in patient falls related to a nursing intervention however, the articles did not speak to the education of the RNs implementing the intervention. Of the 34 articles that were synthesized, four specifically were related to patients on an oncology acute care unit. Nine of the 34 articles specifically targeted RN education related to falls, and 11

articles targeted patient fall education. There were articles, 23, that were included in the synthesis related to fall prevention bundles, fall tools, and other modalities that were shown to decrease patient falls.

#### Synthesis

There were consistent findings across all studies that suggested fall education to either patients or nursing staff decrease patient falls. Multiple opportunities to share fall education with patients and nursing staff were discussed, including use of e-modules, staff meetings, huddles, video education, telehealth, games, brochures and pamphlets, and verbal education. Although, there was inconsistency in the methodology, or content of the education provided, there were multiple studies that suggested that nursing education related to fall prevention was beneficial and showed the biggest impact of decreasing patient falls (Innab, 2022; Kiegaldie, et al., 2019; Lopez, Ma, Aavik, & Cortes, 2023; Moreira Ximenes, et al., 2019, 2022; Morris, et al., 2021; Shepard, Clarke, Hemming, Martin, & Lilford, 2021; Spano-Szekely, et al., 2019; Turner, et al., 2020). Several studies showed that when a nurse uses a fall risk tool or scale to rate the patient's susceptibility to fall, that the patient was less likely to fall (Fowler & Reising, 2021; Innab, 2021; Kivoshi-Teo & Northrup-Snyder, 2022; Lopez, Ma, Aavik, & Coretes, 2023; Morris, et al., 2021; Ojo & Thiam, 2022; Shaw, Keigaldie, & Morris, Educating health professionals to implement evidence-based fall screening in hospitals, 2021; Shaw, L., Kiegaldie, Heng, & Morris, 2023; Shaw, L.K., Kiegaldie, Jones, & Morris, 2021; Shepard, Clarke, Hemming, Martin, & Lilford, 2021; Spano-Szekely, et al., 2019). However, out of all of the studies that were reviewed, none specifically discussed the content or resource materials used to educate on the intervention.

When looking at the generalizability of the study, there were four articles that described studies conducted on medical oncology units, however, there were no studies that were conducted on a surgical oncology unit nor a medical oncology unit that cares for autologous stem cell transplant patients and research patients (Costantinou & Spencer, 2021; Harden, Wall, Galunas, Eastman, & Frederick, 2021). Therefore, the results may not be generalizable to these specific patient populations, and more research is needed. Furthermore, many of the studies were either too small or were limited to one site or hospital setting making the generalizability even smaller. There are many gaps remaining in the evidence, and there is a need for further assessment and research.

The literature synthesis and review provide compelling evidence that providing education to nursing staff related to fall prevention decreases the patient's risk of falling. However, there were no studies that were conducted with on the surgical oncology patient population nor with a medical oncology unit that cares for pharmacologic phase I research patients, and autologous stem cell transplant patients. This suggests that further research is needed in this area, and the researcher should implement these findings to see if they are in fact generalizable to this patient population. Moreover, it is important to obtain additional nursing knowledge by conducting research that would increase fall prevention education and possible fall prevention interventions to the fall bundle, helping to decrease overall fall rates and harm to patients, as well as decrease stress and burnout of nursing staff.

## **Conceptual and Theoretical Frameworks**

It is vital for the scholarly project to be structured on sound principles and frameworks; therefore, a conceptual model and theoretical model helped support the logistical and scientific underpinnings of the project (Moran, Burson, & Conrad, 2020; Zaccagini & Pechacek, 2021). It is important to base the scholarly project on the conceptual framework in order to withstand rigor and validity (Melnyk & Fineout-Overhold, 2019). A theoretical framework was also chosen to help with organizational change management (Melnyk & Fineout-Overhold, 2019; White, Dudley-Brown, & Terhaar, 2021).

#### **Conceptual Framework: The Iowa Model**

The conceptual framework for this evidence-based project was the Iowa model of Evidence-Based Practice to Promote Quality of Care. Permission for use in the project was approved, and is located in Appendix B. The Iowa Model is one of the most efficient, evidencebased models that help support and guide providers in research to ultimately help improve patient care outcomes (Melnyk & Fineout-Overhold, 2019; Murphy, Staffileno, & Foreman, 2018; White, Dudley-Brown, & Terhaar, 2021). The Iowa Model encourages providers to identify areas for opportunity and improvement and ask practice questions (Murphy, Staffileno, & Foreman, 2018; White, Dudley-Brown, & Terhaar, 2021; Zaccagnini & Pechacek, 2021). Within the targeted organization, a high fall rate was noted, and the organization was not meeting their benchmark for inpatient falls. Moreover, the inpatient medical and surgical oncology units noted an unusually high rate of falls in 2022, and an area of opportunity was identified. The Iowa Model is used widely for organizational, clinical, and administrative practice changes through interdisciplinary partnerships and integrating research findings; incorporating all key stakeholders and the entire interdisciplinary team (Melnyk & Fineout-Overhold, 2019; Murphy, Staffileno, 2018; Zaccagnini & Pechacek, 2021).

The Iowa Model is easy to adopt and helps guide changes through plotted questions and decision points throughout the model. The model uses a decision tree approach and guides researchers through various steps and processes (Murphy, Staffileno, & Foreman, 2018;

Zaccagnini & Pechacek, 2021). Lastly, the Iowa Model incorporates feedback loops to ensure that there is closed-loop communication and that practice gaps are mitigated by allowing the researcher to continue on a path to help fix practice discontinuities (Murphy, Staffileno, & Foreman 2018; White, Dudley-Brown, & Terhaar, 2021; Zaccagnini & Pechacek, 2021).

The Iowa Model framework helps identify stakeholders and trigger points, which is how this scholarly project was selected; the trigger point being an increase in patient falls on the medical and surgical oncology units and the units not meeting their QAPI plan. The Iowa Model also enables the researcher to evaluate the internal evidence and literature reviews and design and pilot a practice change (Melynk & Fineout-Overhold, 2019). This process, overall, helps evaluate its effectiveness and integrates sustainability in practice (Melnyk & Fineout-Overhold, 2019). The Iowa Model helped support this evidence-based project because the model has the critical elements to help review the change, check the evidence-based project's effectiveness, design the practice change and help pinpoint and identify sustainability around the transformation of care related to the scholarly project (Melnyk & Fineout-Overhold, 2019).

The first steps of the Iowa Model involve forming a team of key stakeholders and starting the phase of assembling, appraising, and synthesizing the body of evidence (Iowa Model Collaborative, 2017). If enough evidence supports the scholarly project, then the project is designed and piloted (Iowa Model Collaborative, 2017). If the pilot is successful and is appropriate for adopting the practice, then the project is integrated and sustained, and the results are disseminated (Iowa Model Collaborative, 2017). If the pilot is unsuccessful, alternatives are considered, and the project is redesigned for another pilot (Iowa Model Collaborative, 2017). **Theoretical Framework: Kotter's Change Model**  The change theory used for the scholarly project was Kotter's change model (Kotter,

1996). This theory is an eight-step process that helps organizations lead change, (see Figure 2).

## Figure 2

Kotter's Change Theory



Note. John Kotter's eight step change model (Kotter, 1996)

One of the significant benefits of this change model is its effectiveness for knowledge translation and large-scale transformational changes (Kotter, 1996). In addition, this model is easy to use through its eight-step action items and prompts to evoke new behaviors (Kotter, 1996)

The Kotter and Cohen change model is effective in practice when individuals are shown the truth that influences their feelings (Kotter, 1996). Therefore, for the scholarly project to be effective, the research must make the vision and critical points compelling and emotionally engaging (Melnyk & Fineout-Overhold, 2019). To achieve this goal, the researcher must gain trust and rapport with the members of the project team, as well as those key stakeholders that influence the implementation of the project (Moran, Burson, & Conrad, 2020; Zaccagini & Pechacek, 2021). Furthermore, this change theory helps the researchers identify problems or possible solutions to problems and allows individuals to experience the feelings, which invokes a change in behavior (Kotter, 1996; Melnyk & Fineout-Overhold, 2019). Therefore, trust and rapport are essential for the success of the project.

Lastly, the Kotter and Cohen change model is feasible to help the organization implement change. The model supports researchers in producing large-scale changes and allows the individuals within the organization to feel like they are a part of the change. In addition, this model lays out the steps for the organization to implement successful changes, including how to build a team, guide a vision for the project, build trust and rapport within the group, empower individuals to remove barriers and act on deliverables, and create and celebrate wins within the organization (Kotter, 1996; Melnyk & Fineout-Overhold, 2019; White Dudley-Brown, & Terhaar, 2019). With these changes and translational models, the scholarly project had the best chance of success.

#### Summary

There were consistent findings across all studies reviewed that fall education for either patients or nursing staff decreased the incidence of patient falls. There were multiple opportunities described to share fall education with patients and nursing staff, including the implementation of e-modules, staff meetings, huddles, video education, telehealth, games, brochures and pamphlets, and verbal education. Although, there was inconsistency in both the methodology and content of the education implemented, multiple studies showed that nursing education related to falls is beneficial and exhibited the biggest impact for decreasing the incidence of patient falls (Autissier, 2019; Innab, 2022; Kiegaldie, et al., 2019; Lopez, Ma, Aavik, & Cortes, 2023; Moreira Ximenes, et al., 2019; Moreira Ximenes, et al., 2022; Morris, et al., 2021; Shepard, Clarke, Hemming, Martin, & Lilford, 2021; Spano-Szekely, et al., 2019; Turner, et al., 2020). Moreover, there were multiple studies that showed that using a fall tool or scale greatly impacted the patient fall rate; however, none of these articles mentioned how the nursing staff was educated on the use of the tool (Autissier, 2019; Fowler & Reising, 2021; Innab, 2021; Kivoshi-Teo & Northrup-Snyder, 2022; Lopez, Ma, Aavik, & Coretes, 2023; Morris, et al., 2021; Ojo & Thiam, 2022; Shaw, Keigaldie, & Morris, Educating health professionals to implement evidence-based fall screening in hospitals, 2021; Shaw, L., Kiegaldie, Heng, & Morris, 2023; Shaw, L.K., Kiegaldie, Jones, & Morris, 2021; Shepard, Clarke, Hemming, Martin, & Lilford, 2021; Spano-Szekely, et al., 2019; Twibell, et al., 2020).

None of the studies reviewed were conducted on an inpatient surgical oncology unit; therefore, the results may not be generalizable to the surgical oncology unit; however, four studies were conducted on a generalized oncology unit (Autissier, 2019; Costantinou & Spencer, 2021; Harden, Wall, Galunas, Eastman, & Frederick, 2021; Twibell, et al., 2020). Furthermore, many of the studies were either too small, or were limited to one site or hospital setting making the generalizability even smaller. Therefore, there are many gaps remaining in the evidence, and thus a need for further assessment and research.

The literature synthesis and review provide compelling evidence that nursing staff education decreases the patient's risk of falling; however, research has been conducted on the surgical oncology patient population, and there were only four research studies on a medical oncology unit. It is imperative that we decrease the risk of falling in the oncology patient population through nursing education, not only to help the unit prevent more patients from falling but to prevent undue harm to patients. Oncology patients are 16-17% more at risk for falling compared with non-oncology patients, with 25% of total oncology patients having a fall episode while admitted to the hospital (Autissier, 2019; Twibell, et al., 2020). Therefore, it is important to add additional educational interventions to the fall bundle to help decrease overall fall rates and harm to patients, as well as decrease stress and burnout of nursing staff who are at risk of moral distress when a patient experiences a fall.

## **SECTION THREE: METHODOLOGY**

The methodology section first explains the framework and design of the study. It is important that the researcher chooses a specific framework and design for the study. Choosing the correct design is essential to obtain accurate results (Moran, Burson, & Conrad, 2020). The methodology section also describes the setting, the sample population, and ethical considerations (Moran, Burson, & Conrad, 2020). Lastly, the methodology section describes the data collection methods, the tools used during the study, as well as the intervention itself, and the expected timeline of the study (Moran, Burson, & Conrad, 2020; Roush, 2019).

## Design

The design of this evidence-based practice project utilizes the Iowa Model for Evidence-Based Practice. The Iowa Model is one of the most efficient, evidence-based models that help support and guide providers in research to ultimately help improve patient care outcomes (Melnyk & Fineout-Overhold, 2019; Murphy, Staffileno, & Foreman, 2018; White, Dudley-Brown, & Terhaar, 2021). The Iowa Model encourages providers to identify opportunities for improvement and ask practice questions (Iowa Model Collaborative, 2017; Murphy, Staffileno, & Foreman, 2018; White, Dudley-Brown, & Terhaar, 2021; Zaccagnini & Pechacek, 2021). The Iowa Model helped support this scholarly project by allowing the researcher to identify a problem of interest and apply evidence-based interventions from systematic reviews to research the project's overall effectiveness. According to the Iowa Model, a practice change is evaluated with a pilot study (Iowa Model Collaborative, 2017). Using the Iowa Model for this evidencebased project guided the steps of the project. The purpose of the scholarly project was to raise awareness for the need of nursing staff education related to falls to decrease the risk of oncology patient falls.

This project used a quasi-experimental design with a pre- and post-test evaluating the oncology nursing staff's knowledge before and after fall education. The comparison of the preand post-test scores used a paired *t*-test. The patient fall rate data for two months pre- and two months post- intervention was also used to determine if the nursing education impacted oncology patient fall rates. In this project, the independent variable was the nursing fall education and the dependent variable was the fall data. The education was provided via multimodality education session, including in-person and virtual sessions. The fall education was based on the organization's fall CPG available through the patient's EHR, the organization's fall risk policy, and any supplemental information gathered that was evidence-based practice found during the literature review.

## **Measurable Outcomes**

This scholarly project aimed to decrease oncology inpatient falls by implementing fall education to the nursing staff of the inpatient medical and surgical units. The first outcome was a change in the knowledge of the RNs and CNAs. This was determined by administering a preand post-test to the participants prior to and after their educational session. The second measurable outcome was the number of falls recorded on the medical and surgical oncology units two months post-implementation compared with the number of falls two months preimplementation of the project. The unit's fall rates were measured for the short-term effect on the outcome- patient fall. The long-term outcomes will be measured using the National Database of Nursing Quality Indicators (NDNQI) fall rates; however, the scope of this project will not include this data.

#### **DNP Essentials**

This scholarly project incorporates the 'Scientific Underpinnings for Practice' essentials because it synthesizes evidence and implements EBP to care at the bedside. Organizational and system leadership are essential for DNP. The DNP Essential II, Organizational and Systems Leadership for Quality Improvement and Systems Thinking, is designed to help improve patient healthcare outcomes. This project is in alignment with this Essential because it is decreasing undue harm by decreasing patient fall rates. DNP Essential III, Clinical Scholarship and Analytical Methods for Evidence-Based Practice, translates the application of research into practice, studies the implementation and then helps widen nursing research by disseminating the results with applications to practice and finding further areas to study based on this scholarly project. DNP Essential IV, Information Systems/Technology and Patient Care Technology for the Improvement and Transformation of Health Care, and Essential V, Health Care Policy for Advocacy in Health Care, both incorporate technology by using the electronic health record's CPG, as well as the discovery of fall rates using national databases and local organization technology (i.e., through use of SharePoint and data that is populated into SharePoint from event reports). DNP Essential VI, Interprofessional Collaboration for Improving Patient and Population Health Outcomes, affects this project because the evidence would positively affect the outcome of patient falls, which would be a good policy to implement and advocate for resources to educate nursing staff on fall prevention and education. The finding of this project have the

potential for influencing policy and are cross disciplinary. This project also needed to implement effective communication and collaboration skills for a successful deployment; thus it incorporated DNP Essential VII Clinical Prevention and Population Health for Improving the Nation's Health. Lastly, this project's findings have the potential to increase the knowledge of the DNP nurse. This project prepared the DNP graduate student to conduct a comprehensive assessment, review EBP literature, and develop, implement, and evaluate a research plan, which incorporated DNP Essential VIII Advanced Nursing Practice.

## Setting

The setting for this scholarly project was an urban hospital located in the Pacific Northwest of the United States. The medical oncology unit is a 22-bed acute area unit that cares primarily for medical oncology patients, with primary cancer diagnosis, autologous stem cell transplants, interleukin-2 treatments, phase I clinical trials, and other high-dose chemotherapy regimens. The surgical oncology unit is a 24-bed acute care unit that cares primarily for postsurgical oncology patients, with the primary surgeries being colorectal, hepatobiliary, head and neck, and gynecological. There are about 116 employed oncology Registered Nurses (RN) and 22 oncology Certified Nursing Assistants (either CNA1 or CNA2; both referred to as CNAs) on the two units combined; all of whom are employed full-time, part-time, or per diem.

This pilot study aligns with the organization's mission and values, strategic plan, and annual organizational goals. The organization's mission is "As expressions of God's healing love, witnessed through the ministry of Jesus, we are steadfast in serving all, especially those who are poor and vulnerable" (Providence Health & Services, 2023). Therefore, this scholarly project aligns with the organization's mission because those at risk of falling are vulnerable and looking for the care they need without placing them in undue harm. One of the organization's values is excellence, stating that they provide care through innovative and transformational care, committed to safe and reliable patient care (Providence Health & Services, 2023). Therefore, this project aligns with their value of excellence by implementing evidence-based practice and ensuring that the best outcomes are possibly implementing the most up-to-date practices and highest standards. Lastly, the organization's strategic plan includes "strengthening the core" which includes providing effective safe, person-centered care with world-class outcomes. This scholarly project is person-centered focusing on the patient's specific fall risk diagnosis and educating the patient in an innovative way that is evidence-based.

## **Population**

This scholarly project included a convenience sample of oncology RNs and CNAs employed on the inpatient medical or surgical oncology units, and worked either full-time, parttime, or per diem. Those who wish to participate needed to agree to participate in the educational activities. This process was voluntary, and the participants signed an informed consent form (see Appendix C). The Nurse Managers on both units agreed that the fall rates were alarming; however, wanted these initial education sessions to be voluntary. If the findings showed a positive correlation on patient fall rates the recommendation moving forward would be to make the education sessions mandatory on an annual basis. The researcher's goal for this project was to have 90% of the staff complete the education sessions. Other inclusion criteria included all participants must be over the age of 18, and able to speak, read, and understand English. The exclusion criteria included all oncology nursing staff who did not agree to participate, any student nurse or CNA, or those that are not primarily employed and floating to the oncology units. For general participant recruitment, multiple drop-in education sessions were held on different days of the week and weekends and at different times, day shifts/night shifts. Lastly, virtual education sessions were held for those who were not able to or did not wish to participate in person, as the organization was still promoting virtual in-services related to COVID at the time of the study. The demographic data of the participants was collected (Appendix D).

## **Ethical Considerations**

Ethical considerations for research on human subjects were strictly followed. Approval from the Institutional Review Board (IRB) from Liberty University and the healthcare organization was obtained (Appendix E and F). A letter of support for this scholarly project was obtained from the organization (Appendix G). Patient privacy was maintained as outlined by the Health Insurance Portability and Accountability Act (HIPAA). In addition, the researcher maintained Collaborative Institutional Training Initiative (CITI) certification while conducting this project (Appendix H). All data collected (pre- and post-tests) were identified with the participant's employee number and did not include the participant's name or any other identifying factors. Education sessions were held at pre-scheduled dates, times, and locations, and there was a sign-in sheet when attending that only included the nursing staff's employee number. The list of participants was maintained by the unit's Nurse Managers and fall committee representatives (for training and education purposes). All correspondence between the organization and this author was sent by encrypted email and the computer was password protected. Confidentiality was maintained. Patient fall data were only reported in aggregate numbers, including the date of the fall, the type of fall, if there was any sustained injury, what fall preventions were in place at the time of the fall, what fall interventions were added after the fall, and what unit the fall occurred on. No patient or staff identifiers were kept.

## **Data Collection**

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Fall rate data was collected via the organization's fall committee internal SharePoint site that tracks all patient falls throughout the hospital. This information was used for the pre- and post- data (Appendix I). This internal site was used to review the short-term effects of the education. For long-term reports, it was advised for the organization to check at the NDNQI database for the effects of the intervention.

## Tools

The Iowa Model flowchart was used to establish priorities and structure for the data collected during the pilot study (Appendix J; (Iowa Model Collaborative, 2017). A tool was developed by the researcher to measure nursing knowledge related to fall education (Appendix K). This tool was given to the nursing staff pre- and post-education intervention (with only the staff's employee number as an identifying factor). This tool was based on the organization's fall risk policy, fall CPG in the EHR, and any other evidence-based fall precautions that were not included in these tools based on other the researcher's findings (Innab, 2022; Morris et al., 2021; Ojo & Thiam, 2022; Shaw L., Kiegaldie, Heng, & Morris, 2023; Shaw, Kiegaldie, & Morris, 2021; Shepard, Clarke, Hemming, Martin, & Lilford, 2021). The results were used to facilitate communication opportunities to help further educate the nursing staff. There was also a fall education participant evaluation to provide input on the education session and suggest areas for future education topics about fall prevention (Appendix L).

Each question on the pre- and post-education tests included had a multiple-choice answer corresponding to the fall education findings. In addition, the pre-test also included demographic questions, such as age, gender, job title, years of experience in that role, years of experience on the unit, primary language spoken, ethnicity, and highest education completed. The test took approximately 10 minutes or less and was proctored by the researcher. The pre-test was given

after participants agreed to participate in the study. For education delivered in person, the preand post-tests were administered via paper and pencil, with an online option if the participant preferred (via QR code). The researcher scored the pre-and post-test after completing the education session. For participants participating via the virtual sessions the pre-and post-test were administered online using Microsoft Form with a QR code. The researcher scored the preand post-test after completing the education session.

## Intervention

The project utilized Kotter's change theory, which is an eight-step process that helps organizations lead change (Kotter, 1996; Melnyk & Fineout-Overhold, 2019; White, Dudley-Brown, & Terhaar, 2021). One of the significant benefits of this change model is its effectiveness for knowledge translation and large-scale transformational changes (White, Dudley-Brown, & Terhaar, 2021). In addition, this model is easy to use through the eight-step action items and prompts to evoke new behaviors (Melnyk & Fineout-Overhold, 2019).

The Kotter change model is effective in practice when individuals are shown the truth that influences their feelings (Melnyk & Fineout-Overhold, 2019). Therefore, for the scholarly project to be effective, the research must make the vision and critical points compelling and emotionally engaging (Melnyk & Fineout-Overhold, 2019). Furthermore, this change theory helps the researchers identify problems or possible solutions to problems and allows individuals to experience the feelings, which invokes a change in behavior (Melnyk & Fineout-Overhold, 2019).

Lastly, the Kotter change model is feasible to help the organization implement change because it supports producing large-scale changes and allows the individuals within the organization to feel like they are a part of the change. In addition, this model lays out the steps for the organization to implement successful changes, including how to build a team, guide a vision for the project, build trust and rapport within the group, empower individuals to remove barriers and act on deliverables, and create and celebrate wins within the organization (Melnyk & Fineout-Overhold, 2019; White Dudley-Brown, & Terhaar, 2019). With these changes and translational models, the scholarly project had the best chance of success.

## **Project Team**

For the project to be fully implemented, a team was developed to help with implementing the project, educating those implementing the education sessions, and building trust and rapport with the unit's team members. Vital members of the team included the unit's fall committee representatives, the unit managers, the unit's charge nurses, and a statistician. The researcher also gained the organization's support, obtained a letter of support from the organization, and filed for IRB approval through the organization and Liberty University.

For the researcher to gain full participation from the unit's nursing staff, she sought the help of the unit's managers, charge nurses, and the fall committee representatives. They also helped prioritize the education sessions and ensured that implementation of the training occurred. This included securing conference rooms, validating dates and times that worked for the unit, helping to communicate by means of emails (Appendix M), and advertising the education sessions via posters, flyers (Appendix N), and other methods. They also helped relieve nurses, and care for their patients so the nursing staff could complete the training during their shifts, and the fall committee representatives validated and added any other evidence-based interventions, following up with answering questions that arose when the researcher was not on site. Training of nursing staff was conducted through staff meetings, unit-based council meetings, staff huddles, and multimedia meetings via a TEAMs platform. The education sessions were delivered

within a one-and-a-half-week timeframe. A schedule of the education sessions was developed and advertised throughout the departments via multiple modalities. Those that wished to participate needed to agree to voluntarily participate in all education sessions, sign a consent form, and meet the inclusion criteria. During the education sessions, the RNs and CNAs were taught aspects of fall interventions based on the organization's fall risk policy, the patient's EHR, and other evidence-based interventions found through the literature review.

## Timeline

Planning	Pre- Implementation	Implementation	Evaluation	Completion Date
Team development				3/3/23
Proposal defense				4/14/23
	Obtain Liberty University IRB approval			4/22/23
	Obtain organization IRB approval (if needed)			5/1/23
	Data collection: Pre-Education Fall Rates and Fall Learnings			3/19/23 to 5/19/23
		Education teaching sessions		5/13/23 to 5/19/23
			Data collection: Pre- and Post- Test Scores, Demographic Survey, Education Evaluation Survey	5/20/23
			Data collection: Post- Education Fall Rates and Fall Learnings	5/20/23 to 7/20/23
			Final detense	8/3/23

## Feasibility

The feasibility of the scholarly project should be determined to see if a larger scale of the project would be practical or reasonable (Moran, Burson, & Conrad, 2020). The feasibility of the project relied on a convenience sample of RNs and CNAs on the medical and surgical oncology units; therefore, access to staff members was essential. The scholarly project was completed during work hours; however, the Nurse Managers agreed to pay education time for those participants who wished to complete the education sessions during their off hours. The researcher secured the medical oncology or surgical oncology education conference room for the sessions. The technology for the education session, including a computer and projector, was also secured. Lastly, the support of a statistician was essential for the validity of the data analysis.

## **SECTION FOUR: RESULTS**

## **Data Analysis**

The data analysis compared the different data sets of the scholarly project. The first measurable outcome measured the nursing staff's knowledge about fall prevention by analyzing and comparing the pre-test and post-test scores of the nursing staff, which will analyze the short-term effects of nursing education and correlate them with fall rates.

There were 27 participants in the project; 65% of participants were female and 35% were male (see Appendix O). There were 21 Registered Nurses, four Certified Nursing Assistants (1 or 2), and one Nurse Manager who participated (see Appendix O). The experience of the participants in their current role varied, with two having more than 20 years of experience, five having between 10-20 years of experience, three having six to ten years, seven having three to five years, seven having one to two years, and two having less than one year of experience in their current role (see Appendix O). The experience of the participants working on the medical

or surgical unit also varied, with one having more than 20 years of experience, six having between 10-20 years of experience, five having six to ten years, four having three to five years, eight having one to two years, and two having less than one year of experience in their current role (see Appendix O). Lastly, the age of the participants included a wide range, with 8% being ages 8-25 years old, 19% 26-30 years old, 27% 31-40 years old, 38% 41-50 years old, and 8% over the age of 61 years old (see Appendix O).

The pre-test scores ranged from participants answering 19 to 29 questions correctly out of the 33 questions asked. The average pre-test score was 25.1 out of 33 questions. The post-test scores ranged from 25 to 32 correct questions out of the 33 questions asked. The average post-test score was 29.3 out of 33 (see Appendix O).

The second measurable outcome was measured by the number of falls on the medical and surgical oncology unit, two months pre-education and two months post-education. The pre-education data time period was 3/19/23 to 5/19/23 and there was a total of five falls, three on the medical oncology unit and two on the surgical oncology unit (see Appendix P). Of the three falls on the medical oncology unit, none were in the first month (3/19/23 to 4/19/23), and three were in the second month (4/20/23 to 5/19/23; see Appendix P). The three falls were anticipated falls, meaning that they met the fall risk criteria and fall interventions were recommended (see Appendix P). Of the three falls, one sustained minor injury (a scrape) (see Appendix P). Lastly, of the three falls, three had fall education done prior to the fall, and two of the three had reinforced fall education after the fall (see Appendix P). Furthermore, the fall CPG was used pre-fall for all three patients, and two of the three patients had the CPG continued post-fall (see Appendix P).

For the surgical oncology there were no falls in the first month of data collection preeducation (3/19/23 to 4/19/23), and there were two falls in the second month prior to fall education (4/20/23 to 5/19/23; see Appendix P). The two falls were anticipated falls, meaning that they met the fall risk criteria and fall interventions were recommended (see Appendix P). Of the two patient falls neither sustained any injury (see Appendix P). One of the two patients who fell received fall education prior to falling, and both patients received fall education post-fall (see Appendix P). Both patients had the fall CPG in place prior to falling, and post-fall (see Appendix P).

The post-education data fall period took place from 5/20/23 to 7/20/23 and there was a total of four falls on the medical oncology unit and three falls on the surgical oncology unit. Of the four medical oncology unit falls two were on days and two were on nights, three were in the bathroom and one was in the patient room doorway. Three of the four falls had minor injuries including bruises and a skin tear. Of the four patients who fell, none had preventative fall education pre-fall and only 50% of the patients received fall education after their fall; per policy, fall education is required for a fall risk patient and after a patient has a fall. Pre- and post-fall only 50% of the patients who fell had a fall CPG in their electronic medical record.

For the medical oncology unit the post-fall period totaled three patient falls, with two being on the night shift and one on day shift. Two patient falls were in the bathroom and one was from the bed, resulting in a total of one patient having a skin tear, and the other with no injuries. Only one patient had fall education pre-fall, and all three patients did not receive fall education post-fall; per policy, fall education is required for a fall risk patient and after a patient has a fall. However, all three patients had their fall CPG charted on pre- and post-fall. The long-term effects, the researcher will advise the organization to track the national NDNQI benchmarks and the national percentile of which the organization falls under pre- and post-implementation to determine long-term effects of education on fall rates. For both the pre- and post-test, and the number of falls pre- and post-education, a two-group paired *t*-test was analyzed. The researcher determined the hypothesis to be that the post-test mean scores would be different than the pre-test mean education scores. The null hypothesis is that there is no difference in the pre- and post-test mean education scores. The degrees of freedom, standard deviation, standard error, *p*-value, 95% confidence interval, and *p*-value were also be determined (see Appendix Q). Our test determined that the *p*-value of <0.001 was less than the significance level of 0.05, meaning that there was a statistically significant change in the post-test versus the pre-test scores, suggesting that the intervention was impactful on nursing staff's fall knowledge.

The number of patient falls (falls per 1000 patient days) that occur in the pre-and postimplementation phase were also compared using a paired *t*-test. The researcher determined the hypothesis to be that the pre-education fall rates would be different than the pre-education mean fall rates. The null hypothesis is that there is no difference in the pre- and post-education fall rates. The degrees of freedom, standard deviation, standard error, *p*-value, 95% confidence interval, and *p*-value were also determined (see Appendix R). The confidence level was set at 0.05 and the test determined the *p*-value was low (p=0.2048), meaning that there was not a statistically significant change in the post-education fall rates versus the pre-education fall rates, suggesting that the intervention for the fall rates was not impactful. The researcher consulted a statistician during the data analysis period.

An education evaluation was given to each participant. The survey had seven questions that were rated on a Likert Scale (yes-excellent, yes-very good, neutral, no-bad, no-very bad),

and two open ended questions that participants could free text. The education evaluation survey results (see Appendix S) showed that most participants felt that the education session was a good use of their time; had a better understanding of what fall risk scale to use; had a better understanding of fall risk factors; had a better understanding of fall prevention and fall interventions; and had a better under of the fall CPG, fall policy, and Lippincott's fall protocol. The participants also thought that the researcher had accurate knowledge of the subject matter and presented the education in a way that they could understand. The two open-ended questions asked for feedback about the researcher and the education sessions, as well as suggestions regarding future fall education presentations. The two qualitative questions suggested that the participants thought the presentation was informative and that they "learned a lot." There was one negative comment stating that some of the multiple-choice questions had some repetitive answers. Some of the feedback regarding future fall education topics was that participants would like to see more unit-specific data and metrics, information on the Johns Hopkins fall risk tool, would like my presentation to be shared at a staff meeting, would like to see data to support the effectiveness of strip alarms, and would like more information on fall prevention while patients are attached to intravenous fluid tubing.

#### **SECTION FIVE: DISCUSSION**

#### **Implications for Practice**

When considering implications for practice, it is essential to look at the organization's mission and values as to why these results are necessary for a practice change. Part of the organization's mission states, "We are steadfast in serving all, especially those who are poor and vulnerable," making the results of this study in alignment with helping those at risk for falling and making them vulnerable, possibly placing them in harm's way (Providence Health &

Services, 2023). Another value of the organization is excellence, stating that they provide innovative and transformational care, committed to safe and reliable patient care (Providence Health & Services, 2023). Therefore, if this scholarly project positively affects the patient population, it will further develop their integration of providing excellent, evidence-based practice to the patients they serve. If the results of this scholarly project positively correlate to decreasing patient falls, there will be significant implications for educational training and further dissemination of this pilot study.

The implications for practice are immense. It will be essential to ensure that the organization updates its education of new nursing staff regarding fall education to ensure that all new nursing staff are equipped with the same fall education, and the new practice does not fall by the wayside. It will also be necessary for caregivers to understand that these correlations are suitable for patients' safety and will help with hospital reimbursement rates and publicly reported scores. It is also recommended that the fall policy be revisited and written in a way that is meaningful for implementation and use. The fall policy is currently over 25 pages in length with several appendixes and attachments, making the actual length more than 35 pages. It is recommended that the fall policy be revised to be less cumbersome and practical for caregivers to read and remember. Lastly, it is recommended that the fall policy include more education regarding cancer patient fall risks, including the risk of chemotherapy-induced peripheral neuropathy being the number one reason cancer patients fall (Autissier, 2019).

## Limitations

One of the biggest limitations of the project was the number of participants. The fall education was not mandatory, and as a result there were only 27 participants, out of the possible 100 caregivers employed on the medical and surgical oncology units. Therefore, it is difficult to
conclude whether the findings of the study are directly correlated with the fall education intervention. The Nurse Managers of the units did not make this education mandatory because the current environment was not conducive to adding additional mandatory in-services. Another limitation was the lack of notice regarding the in-service education sessions, The email for recruitment and the flyers were posted two days before the first in-service date, making it short notice for some to prepare and attend. Although 17 in-services were offered over a period of seven days, at various times, dates, and via in-person and on TEAMs, both units were shortstaffed all seven days and there were multiple competing factors.

One of the main competing factors for the in-person in-services was the lack of shift coverage for caregivers to be fully present for the entire in-service. Many caregivers were interrupted during the education sessions via Vocera and other team members needing their assistance; therefore, it is recommended for future studies that extra staff be recruited to fully break caregivers for an uninterrupted session. There were many distractions and interruptions in the conference rooms, because of the multiple people coming and going throughout the inservice sessions.

Other possible alternative explanations for the project findings could be that the units were not as short-staffed during the post-education data collection period versus the preeducation data collection period (see Appendix T). Lastly, there was a union-authorized strike that happened from 6/19/23 to 6/24/23; consequently, both units did not have their core staff and were staffed with travelers, other clinical leaders from other hospitals within the organization, and non-clinical volunteers. Therefore, it is hard to know if there was an impact on the fall rate related to poor staffing ratios.

#### **Sustainability**

The researcher will suggest the organization continue to monitor the long-term results of patient falls via the NDNQI database. However, the researcher will establish a plan for sustainability with the Nurse Manager, charge nurses, and the unit's fall committee representatives. For short term management the leaders in the medical and surgical oncology units will need to do spot checks on falls and root cause analysis of all falls, searching for any gaps in education that may need to be mitigated. This should be completed soon after the patient fall happens, and gaps in fall interventions reported to all caregivers for further education and learning. Further fall education for new hires and transfers will need to be maintained as well. The organization's current annual education is based on the previous year's patient fall learnings. Therefore, the researcher suggests adding additional education based on the hospital policy, fall CPG, and any new evidence-based practice that is available. Lastly, the researcher suggests an interactive portion, educating on how to use the quick mobility chart and practice rating patient risk to fall and what their mobility status and interventions should be. By providing an interactive portion with hands-on scenarios this will help solidify the staff's knowledge and will allow them to practice in a safe environment.

### **Dissemination Plan**

Dissemination of the projects results is crucial in order to expand the breadth of knowledge of nursing research. Dissemination of results also constitutes part of the DNP *Essential* III (Moran, Burson, & Conrad, 2020). It is important to disseminate the results to the organization including the Nurse Managers, the unit's nursing staff, the organization's nursing leaders, and any other key stakeholders. Whether the research results are positive or negative, it is important to disseminate them to ensure there is closed-loop communication about the project and so that others have the opportunity to further expand the research. This dissemination plan

should utilize a strategic methodology and a systematic approach to ensure all stakeholders receive communication (Moran, Burson, & Conrad, 2020). At a minimum, a presentation should be given to the unit's nursing staff, Nurse Managers, and the nursing leaders of the organization. It is important for the DNP student to keep in mind timelines, especially final deliverables for graduation (Moran, Burson, & Conrad, 2020). Many dissemination plans include a presentation to the unit and organizational staff, podium and poster presentations, and journal articles.

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## Appendices

- Appendix A Levels of Evidence Matrix
- Appendix B Letter of Permission to Use The Iowa Model for Conceptual Framework
- Appendix C Participant Consent
- Appendix D Participants Demographic Data
- Appendix E Liberty University IRB approval
- Appendix F Organization IRB approval
- Appendix G Organization Letter of Support
- Appendix H CITI Training Certificate
- Appendix I Post-Fall Audit Tool
- Appendix J Iowa Model Tool
- Appendix K Pre- and Post- Nursing Staff Test
- Appendix L Fall Education Evaluation
- Appendix M Email to Participants
- Appendix N Poster and Flyer Advertisement
- Appendix O Demographic Data
- Appendix P Pre- Education Falls Data
- Appendix Q Statistical Analysis of Pre- and Post- Education
- Appendix R Statistical Analysis of Pre- and Post- Falls Data
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- Appendix T Pre- and Post- Education Unit Staffing

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
Ang, W., Hervani N	Evaluate	202	-Quasi-	-Independent t-	Level 3: Case	-One	This would be good
Lau S & Lau	of videos on	700 beds	1	that the	controlled	the two units	evidence to support
Y. (2018).	fall risk	tertiary	quantitative	intervention		were used	patient education
Evaluation of a	awareness and	hospital in	post-test	group had a		-Videos were	via video.
fall prevention	knowledge on	Singapore.	comparison	significant		only in one	However, it does
educational	falls	The	research	improvement		language	not analyze the
video on fall risk		intervention	design was	(p=0.021) in		-Not RCT	impact of fall
awareness,		group was	used to	fall risk		-Control	education for
knowledge and		carried out in	evaluate the	awareness.		group and	nurses.
help seeking		a 38 beds	effectivenes	-However,		intervention	
surgical patients		surgical ward	s of the	tost and Mann		group were	
Singanore		control group	-The	Whitney U test		and not half	
Nursing Journal.		was in a 38	participants	showed no		of each unit	
45(1), 27-33.		beds	in the	significant		-All patients,	
		orthopedic	control	results for		even control	
		ward.	group	knowledge on		group,	
			received	falls (p= 0.348)		received a	
			education	and help		pamphlet	
			through a	seeking		about falls	

# Appendix A – Evidence Table

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
			fall prevention pamphlet -The participants in the intervention group viewed the fall prevention educational video from the researcher's laptop at their bedside in addition to the fall prevention pamphlet	behavior (p= 0.519) respectively -Video content validation index was 0397			

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
Autissier, E. (2019). Chemotherapy- induced peripheral neuropathy. <i>Clinical Journal</i> <i>of Oncology</i> <i>Nursing</i> , 23(4), 405-410. doi:10.1188/19. CJON.405-410	To summarize the literature to link chemotherapy- induced peripheral neuropathy (CIPN).	Thirty-one studies related to CIPN.	Literature review was conducted to determine the risk of falling and other injuries as a consequenc e of CIPN, as well as assessments, treatments, and intervention s.	Assessment and interventions related to CIPN is crucial for preventing falls and injuries from falls. Proper education of oncology nursing caregivers to assess for CIPN and management of CIPN is necessary to reduce CIPN related falls.	Level 1: Meta- analysis	There were no limitations listed in the study. However, because there were no limitations listed, makes it a limitation (because the researcher did not disclose limitations). One of the main limitations are the implications for the acute care setting. This article stated that this would apply	Because of the high level of evidence this would be applicable to use in regards to the scholarly project. However, this would be good supplemental evidence to support CIPN education related to fall prevention. This study also applied to cancer patients, which applies to the project as well.

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
						to the acute	
						however. did	
						not go into	
						fine details for	
						implications	
						(as they did in	
						the nome	
Bateman I &	To find out if	Twenty-	The	Multimodal	Level 2.	The size of	This would support
Schmidt-	the theory of	seven	experiment	communication	quantitative and	the study does	the framework of
Borcherding, F.	multimodality	students	followed a	of the kind the	quasi-experimental	not indicate	the theory of
(2018). The	for the	(age: M =	one-	researchers	1 1	that the results	multimodality for
communicative	engaging in	24.62; SD =	factorial	proposed		are	the deployment of
effectiveness of	media	3.75; 25	design	(using the		generalizable	education provided
education	education	female) of	applying the	framework of		and that it was	via videos.
videos: Towards	(both	the	educational	the theory of		only tested on	However, this study
an empirically-	theoretical and	University of	videos	multimodality)		university	would only be
multimodal	best practice	Germany	the former	will be essential for		students.	did not call out fall
account	best practice.	narticipated	sections as	engaging with			education during
Multimodal		in the study.	independent	such media.			the study, nor
Technologies		j·	variable.	both			education for the
and Interaction,			That is, 9	theoretically			nurses (only

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
2(3), 59. doi:10.3390/mti2 030059			participants watched Video 1 (the screencast), 10 participants watched Video 2 (the Prezi), and 8 participants watched Video 3 (the so-called vodcast).	and empirically			patients). Therefore, this would be supplemental to higher levels of evidence to support video education.
Chan, D., Sherrington, C.,	Purpose was to test if a silent	-358 people on an acute	-Feasibility trial over 6	50% reduction in fall events in	Level 3: case controlled	-No specific numbers for	This would support patient education
Naganathan, V.,	video using	ward (half	months	the group who		non-English	via video, however,
Hua Xu, Y.,	body language	were shown	-Silent	were shown		speaking	did not analyze
Chen, J., Ko, A.,	would decrease	video, half	video using	the video twice		-One hospital	education for
Cumming, R.	fall rates for	were not)	universal	a week		and one unit	nurses knowledge
(2018).	cognitively	-50% of the	body			-Relatively	of video education.
Innovation and	impaired	older patients	language.			small number	Showed that a
translation key	inpatients and	have a non-				of subjects	simple video
issues to	patients with a	English					(shown twice a

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
consider and innovative ideas on fall prevention in the geriatric department of a teaching hospital. <i>Australasian</i> <i>Journal on</i> <i>Aging, 37</i> (2), 140-143. doi:10.1111/ajag .12528	language barrier (non- English speaking).	speaking background -50% of the older patients admitted to the hospital are cognitively impaired				-Did not specify if groups were random	week) with one specific message could decrease falls in non-English speaking patients and patients with dementia.
Cho, My., & Jang, S. J	This study assessed	The participants'	Nurses (N $= 162$ ) from	The present study opens the		Data was collected from	This is a good study to supplement
(2020). Nurses'	knowledge and	mean age	seven small-	possibility of		only seven	nursing education,
knowledge,	attitudes	was 32.49	and	increasing	Loval 1: Cross	hospitals in a	and to use the
attitude, and fall	regarding falls,	years (SD	medium-	nurses' interest	Sectional	single city in	studies findings to
prevention	and fall-	8.17) and	sized	in fall-	Socional	South Korea;	help support a good
practices at	prevention	157 (96.9%)	hospitals	prevention		therefore, we	learning
South Korean	activities of	of them were	participated	activities in		cannot	environment, and
hospitals: A	nurses working	female. The	in the study.	small and		generalize the	listen to barriers

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
cross-sectional	in small- and	mean	Among the	medium-sized		results to a	that may be
survey. BMC	medium-sized	duration of	190	hospitals.		larger	inhibiting fall
Nursing, 19(1),	hospitals	participants'	distributed	Patient safety		population,	precautions and
108.		work .	questionnair	in small- and		and this study	education on the
doi:10.1186/s129		experience	es, 4 were	medium-sized		should be	unit. This was also
12-020-00507-w		was 8 years	not	hospitals can		repeated with	in South Korea, so
		and 5	returned,	be enhanced by		from different	it might not be
		the total	alla 24 were	creating an		aiting Also	generalizable to
		number of	Therefore	wherein		cities. Also,	Inspirals in the
		number of	the final	developing		have	United States.
		in the study	analytic	fall-prevention		understood	
		82 (50.6%)	sample	strategies are		questions	
		nurses had	included	voluntary and		differently, as	
		experienced	162	self-directed		attitudes and	
		inpatient falls	questionnair	(for example,		engagement	
		and 127	es (85.3%	developing a		in fall	
		(78.4%)	response	nursing		prevention	
		nurses had	rate).	practice		activities were	
		participated		guideline for		evaluated	
		in		preventing		using self-	
		educational		inpatient falls),		reported data.	
		programs on		and providing			
				appropriate			

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
		fall prevention.		motivation and rewards			
Costantinou, E., & Spencer, J. (2021). Analysis of inpatient hospital falls with serious injury. <i>Clinical</i> <i>Nursing</i> <i>Research</i> , <i>30</i> (4), 482-493. doi:10.1177/105 4773820973406	The purpose of this study was to utilize an available data collection instrument to better understand patient and environmental characteristics of those who sustained a fall-related serious injury at a hospital.	53 medical records of patients that had fallen at a single hospital. Study done over two years.	Retrospectiv e case study -Injurious Fall Data Collection Tool -Chi-square tests were performed to examine the relationship between outcomes of moderate versus major injury severity level and the nominal variables of age group,	-The highest percentages of falls with serious injury involved oncology patients and heart and vascular (tied at 20.8) with 4 <sup>th</sup> surgery (13.2) -The highest percentages of falls with moderate injury involved oncology patients (7.5)	Level 5: retrospective case study	-Lack of reporting and inaccurate or incomplete medical record data. -Falls with serious injury that occurred in the fourth quarter of each year were not reviewed. -This study did not compare fallers with a serious injury to a control group of non- fallers or	This study is generalizable for the oncology patient population, and supports patient education. However, it did not analyze effects of education for the nurses on fall risks. Study showed that oncology patients and surgical patients are among the top 4 types of patient populations that could fall and to sustain moderate to serious injuries. This stresses the importance of interventions

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
			gender, FRA category, altered mobility, and unit service line.	-Analysis of falls per 1000 patient days shows highest rates on 2 <sup>nd</sup> oncology (0.11) and 4 <sup>rd</sup> surgery (0.9) -Peak occurrence of injurious fall was between 1 and 4 days after admission.		fallers with mild injuries. -One site study.	needed on a Surgical Oncology unit. It also showed that patients were likely to fall between 1 and 4 days after admission, which is why we stress education within 24 hours of admittance or asap post anesthesia.
Cuttler, S., Barr-	To evaluate the	-Four	Performanc	-Falls	Level 7:	-Not RCT.	This would show
Walker, J., &	effectiveness	medical-	e	decreased 20%	performance	-Multiple	that the use of
Cuttler, L.	of patient	surgical units	improvemen	from 4.78 to	improvement	things at once	patient fall
(2017).	education	in one US	t study.	3.80 per 1000		(made sure	education via video
Reducing	videos on fall	public acute	- A 4 min	PDs (IRR 0.80,		bed alarm was	is effective;
medical-surgical	rates	care hospital.	video was	``````````````````````````````````````		active, tried to	however, did not

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
inpatient falls		-Patients and	shown to	95% CI 0.66 to		use icons on	analyze nurses
and injuries with		family	patients	0.96)		only 10 of the	knowledge on fall
videos, icons and		members	and/or	Falle with any		patient rooms)	education.
alarms. <i>BMJ</i>		were	family.	-Pails with any		so difficult to	Therefore, would
Open Quality.		approached		degraged 40%		infer which	only be
6(2), 1-9.		1200 times to		from 1 01 to		intervention	supplemental. The
a01:10.1130/0111		watch		110111 1.01 10		worked.	the element on them
0q-2017-000119		Videos.		0.61 per 1000		-The	and only 10 notiont
		-ratients who		PDs (IRR 0.60,		of care should	rooms used the
		at risk of		95% CI 0.38 to		be considered	icons. The study
		falling (using		0.94)		(proximity to	indicated that the
		the Schmid 9		-Falls with		nurses'	icons were not
		screening		serious injury		station, single	effective and not
		tool) were		85% from		patient room)	fully implemented.
		identified on		0.159 to 0.023		and was not	The results show
		a computer-		per 1000 PDs		recorded and	using video
		generated		(IRR 0.15,		unknown if	education will
		list. Videos		95% CI 0.01to		this effected	decrease fall rates
		shown at any		0.85).		anything.	and injury related to
		time during					the fall and for that
		their stay.					fact alone, it can be
							useful.

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
Fowler, S., & Reising, E. S. (2021). A replication study of fall TIPS (Tailoring Inervention for Patient Safety): A patient- centered fall prevention kit. <i>MedSurg</i> <i>Nursing, 30</i> (1), 28-34.doi: 10.1016/j.jcjq.20 17.05.002	Replicate the study by Dykes and coauthors (2017) on a medical telemetry unit, exploring adoption of a patient- centered fall prevention tool and its impact on patient knowledge of fall risk factors and interventions, fall rates, and injury rates	medical telemetry unit at a 237- bed community hospital over 6 months (March- August 2018). Average daily census was approximatel y 30 patients during this period. Four convenience samples of 30 patients each were chosen for interviews before the	A pre- and post- intervention design was used to compare patients' perceived knowledge and actual fall rates before and after implementin g the tool and processes. Thirty patients were interviewed before the study and at 1-, 3-, and	Patients were more knowledgeable about falls at months 1, 3, and 6 compared to pre- intervention (p=0.001- 0.05). Fall rates fluctuated over the 6- month study, with overall reduction from 3.3% (pre-) to 1.9% (post-). Staff was 85% adherent with use of the laminated poster, with adherence	Level 2: Quasi- experimental	Findings are limited to one hospital and one medical telemetry unit. Results support the potential for a best practice change. Plans are to disseminate this new process to other patient units. overall adherence to documentatio n on the fall risk assessment and intervention	

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
		intervention and at 1 month, 3 months, and 6 months during the intervention period (N=120). Patients had to be alert, oriented, and English- or Spanish- speaking to be included in the interview process	6-month time points during implementat ion (N=120). Number and rates of falls per 1,000 patient days were calculated. Audits were completed randomly to monitor adherence to the process.	increasing over time. RN education provided at huddles and Gemba or other communication boards provide verbal and visual opportunities for communication about falls.		poster in the study period was 84%, with improve ment over time. Initial adherence of 45% steadily increased to 100% at the end of the study. In 183 of 259 observations, documentatio n on the poster was 100% completed with the five key elements of the patient's name, date	

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
						and time, identification of risk factors, and notation.	
Hakvoort, L., Dikken, J., van der Wel, M., Derks, C., & Schuurmans, M. (2021). Minimizing the knowledge-to- action gap; identification of interventions to change nurses' behavior regarding fall prevention, a mixed method study. <i>BMC</i> <i>Nursing</i> , 20(1), 80.	The aim of this study is to identify intervention options to change the behavior of hospital nurses regarding fall prevention among older hospitalized patients.	ligible experts were medical doctors, nurse practitioners, nurse specialists and physiotherapi sts with further education in geriatrics. All experts worked in one of the ten tertiary Dutch teaching	This study used a mixed method design. The Behavior Change Wheel (BCW) was used to identify intervention functions and policy categories to change the behavior of nurses regarding fall	In Geriatric experts' opinions interventions targeting behavior change of nurses regarding fall prevention should aim at 'after-care', 'estimating fall risk' and 'providing information'. However, in nurses' opinions it	Level 5: Quantitative (Delphi rounds) and Qualitative (focus groups with interviews)	Low n for all study groups. Not generalizable to a larger patient population.	This would not be a good article to support RN education related to falls. This article was regarding RNs perception of falls, not education surrounding falls. However, this article would be good for the implementation of evidence and the RNs perception of the fall education.

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
doi:10.1186/s129 12-021-00598-z		hospitals affiliated with the Research, Education and Nursing regarding Elderly (RENursE) consortium.	prevention. This study followed the eight steps of the BCW and two methods of data collection were used: five focus groups and three Delphi rounds. The focus groups were held with hospital nurses (n = 26). Geriatric experts (n = 11), managers	should target; 'providing information', 'fall prevention' and 'multifactorial fall risk assessment'. Nurses experience a diversity of limitations relating to capability, opportunity and motivation to prevent fall incidents among older patients. Based on these limitations			

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
			(n = 13) and educators (n = 13) were included in the Delphi rounds. All data were collected within ten tertiary teaching hospitals in the Netherlands. All participants were included based on predefined in- and exclusion	educational experts identified three intervention functions: Incentivisation, modelling and enablement. Managers selected the following policy categories; communication /marketing, regulation and environmental/ social planning			

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
			criteria and				
Halim, A., Mahzum, E., Yacob, M., Irwandi, I., & Halim, L. (2021). The impact of narrative feedback, e- learning modules and realistic video and the reduction of misconception. <i>Education</i> <i>Sciences</i> , 11(4), 158. doi:10.3390/educ sci11040158	To determine the level of misconception percentage reduction through the use of narrative feedback, the e-learning modules, and realistic video.	281 students; s all first- year students in the Department of Physics, Chemistry, and Biology, Teacher Training and Education Faculty, Syiah Kuala University, who were currently taking the basic physics course.	The data were collected twice, namely before treatment and after treatment. The validity of the three- tier diagnostic test instrument- based e- learning, which is measured by its validity and	The contribution of the initial baseline of the respondents to the final score (posttest) was very low in the class with narrative feedback treatment, and the highest one was in the class with e- learning modules treatment. The best feedback treatments used to reduce	Level 2: quantitative and quasi-experimental	This study was limited to basic physics concepts, the respondents come from different fields of science, and the modules used are not directly related to the questions and answers in the pretest.	This study supports the use of e- modules and visual learning (realistic video). Therefore, this would help support realistic videos. However, these videos were for those in certain science classes; therefore, it is uncertain if the results are generalizable.
5011040150		course.	its validity and reliability	treatments used to reduce the			

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
			values, has	misconception			
			been tested	percentage in			
			and	the concept of			
			calculated	free-fall			
			by previous	motion were			
			researchers.	feedback and			
				realistic video			
				The efforts to			
				reduce the			
				misconception			
				percentage in			
				the size and			
				shape of free-			
				fall objects			
				were best			
				employed with			
				narrative			
				Leedback.			
				efforts to			
				reduce the			
				percentage of			
				misconception			

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
				in the acceleration of			
				falling objects,			
				the three types			
				of treatments			
				could be			
	All healthcare	The initiative	The	With the use of		One unit	This would be a
	institutions	was	initiative	the Visual		therefore not	good article to use
Harden, K. L.,	prioritize falls	implemented	included	Rounding		generalizable.	to support RN fall
Wall, P.,	as a major	on the 32-	three	Tool, there was		Also, their	education because
Galunas, L.,	safety issue.	bed inpatient	essential	a clinically		nursing staff	the results would be
Eastman, D. J.,	Falls are of	acute care	falls	significant		as the	generalizable to the
& Frederick, T.	particular	oncology	intervention	decrease in the		convenience	patient population
S. (2021).	concern on	unit at	s, a	use of call	Level 1. Literature	sample.	(oncology vs
Managing Falls.	inpatient	Michigan	standardized	lights for a	Review	Despite the	surgical oncology).
Clinical Journal	oncology units	Medicine.	communicat	period of nine		initial success	This would also
of Oncology	where patients	The majority	ion method,	weeks. During		of the results,	support the
Nursing, $25(2)$ ,	are	of the 64	and a	this period,		the	education of RNs
188-193.	substantially at	nurses who	rigorous	average		intervention	related to falls,
doi:10.1188/21	risk for injury	participated	implementst	lights were		practices were	because the Kins
	Therefore they	in the	ion for staff	reduced by		maintainad	were educated.
	implemented a	were	The	12% In		long_term	Lasury, unis was
	implemented a	WOLC	1110	1 4 /0 . 111		1011g-101111.	supported by a

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
	three-prong intervention to see if it would decrease their fall rates.	bachelor's prepared and supported on the unit by a mix of UAPs designated as patient care technicians or nursing aides.	essential intervention s were RN- UAP communicat ion, proactive toileting, and hourly rounding. This initiative was guided by the quality team at the authors' institution, formally evaluated using a quality improvemen t process	addition, the set goal of a 20% decrease in falls was exceeded for the fiscal year. Following implementatio n, the number of total falls decreased by 31%, and the number of falls with injury decreased by 50%			literature review, therefore, has a higher level of evidence.

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
			and				
			procedure,				
			and				
			not to be				
			human				
			subject				
			research.				
			Audits were				
			conducted				
			to quantify				
			observed				
			reporting by				
			RNs and				
			UAPs. The				
			outcome				
			measures				
			were to				
			decrease				
			falls with				
			harm for				
			patients				
			with cancer				

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
			and to				
			decrease the				
			use of call				
			indicating				
			that natient				
			needs were				
			being met.				
			Staff				
			education				
			was				
			intentionally				
			created and				
			implemente				
			d to include				
			input from				
			nurses and				
			assistive				
			refine				
			processes				
			which				
			helped to				
			maintain				

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
			commitment				
Innab, A. M. (2022). Nurses' perceptions of fall risk factors and fall prevention strategies in acute care settings in Saudi Arabia. <i>Nursing</i> <i>Open</i> , 8(2), 1263-1269. doi:10.1002/nop 2.1182	The purpose of this study was to explore nurses' perceptions of the factors associated with falls and fall prevention in acute care settings in SA. The specific aims of this study were to (1) determine the frequency and effectiveness of using preventive measures for falls in	At a teaching hospital. convenience sampling method to collect data from nurses working in acute care departments. Included nurses (a) were currently working in acute care units, (b) held a current Registered Nurse (RN)	This study adhered to the Strengtheni ng the Reporting of Observation al studies in Epidemiolo gy (STROBE) initiative, as detailed in the Supplement ary File.	We found that impaired balance and muscle strength, limited mobility, and an inability to follow safety instructions were reported as the top factors in falls. Multidisciplina ry fall prevention strategies are effective in reducing the prevalence of falls. Nurses with higher	Level 4: Cross- sectional, correlational, descriptive study.	data were collected at a single point in time from a sample of nurses working in a single teaching hospital in SA. The researcher used a convenience sampling method, reducing the generalizabilit y of the findings to other healthcare	This study does not go into fall education of the RNs. However, it does correlate certain attributes to higher fall education knowledge. This study is also not generalizable because it was conducted in a different country than the USA; therefore, may have other factors that contributed to the results. This would be good supplemental evidence to support

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
	inpatient	license, (c)		levels of		settings.	using a fall
	settings, and	were		education had		Future	education program.
	(2) determine	working as a		higher		researchers	
	the relationship	staff or head		perceptions		are	
	between	nurse and (d)		towards the		recommended	
	nurses	were		risk factors of		to use a robust	
	characteristics	English		fails. Formal		design and	
	(age, gender,	Eligiisii. Nursing		training		sampling method to	
	education	students		including fall		enhance the	
	length of	nursing		prevention		external	
	experience.	interns and		education		validity of the	
	position and	nurses		programs, were		study.	
	recent fall	working in		shown to		5	
	prevention	outpatient		reduce falls by			
	education) and	settings were		making nurses			
	their	excluded due		more aware of			
	perceptions of	to a lack of		fall risk factors			
	why falls occur	extensive		and prevention			
	in acute care	work with		strategies. The			
	settings.	patients at a		findings of this			
		higher risk of		study can be			
		falls.		used to inform			
		Participants'		managers			

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
		ages ranged from 26 to 56 years, with a mean age of 38.2 (±7.9). The majority of participants (80.4%) were female. The educational level of participants ranged from college diploma to master's degree, with the majority of nurses (59.8%) holding a BSN degree.		about factors that may contribute to falls in acute care settings.			
Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
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Kiegaldie, D., Nestel, D., Pryor, E., Williams, C., Bowles, KA., Maloney, S., & Haines, T. (2019). Design, delivery and evaluation of a simulation-based workshop for health professional students on falls prevention in acute care settings. <i>Nursing</i> <i>Open</i> . 6(3), 1150-1162. https://doi.org/10 .1002/nop2.318	The aims of the evaluation were to measure the impact of the delivery of the SRP (Safe Recovery Program) using SBE on student's knowledge of evidence-based falls prevention strategies and their confidence and motivation to implement the SRP during their placement. A further aim	All students entering clinical placement on an intervention ward were trained in the SRP.	This study was a Pre– Post-test intervention design	Pre–Post-test study found that SBE improved stu- dent's knowledge and skills and provided experiential learning that was memorable and challenging. e aims of the evaluation were to measure the impact of the delivery of the SRP using SBE on student's knowledge of evidence-based	Level 6: Qualitative (interview questions) and Quantitative	This was only regarding student nurses (SN) and not RNs on a unit with the SRP; therefore, this may not be generalizable to the RN in the acute care setting. it is not possible to clearly identify whether SBE assisted in the acquisition of knowledge and skills in falls prevention as the study did not compare	This would not good evidence to support RN fall education, because it is a low level of evidence and it was not generalizable to RNs (versus SN). It also does not take into account the history and experience an RN would have related to falls education. Lastly, it did not outline the fall education that was implemented.

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
	was to explore the students' perceptions of			falls prevention strategies and		SBE with no SBE. An open-ended	
	their learning experiences			their confidence and		question seeking	
				motivation to implement the		participant's specific views	
				their		was not asked	
				further aim		have	
				was to explore the students'		disclosed negative	
				perceptions of their learning		views on the simulation	
				experiences		experience.	
						however	
						measure qualitative	
						responses to	
						expand on	
						student views.	

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
Kivoshi-Teo, H., & Northrup- Snyder, K. (2022). "Adapted" motivational interviewing to engage hospital nurses in fall prevention education. <i>Online Journal</i> of Issues in Nursing, 27(2), 1-10. doi:10.3912/OJI N.Vol27No02PP T45	The goal of this project was to provide evidence-based training to hospital nurses to facilitate patient engagement with fall prevention measures.	Thirteen training sessions were conducted through September- November 2015. A total of 85 nurses participated in the training. The final sample (N=61) included those who completed both surveys (71% response rate). Participants included 40	An "Adapted" Motivationa 1 Interviewin g (MI) for fall prevention (AMIFP) training In acute care was developed and introduced to nurses as part of a Veterans Affairs- Nursing Academic Partnership (VANAP) initiative.	After the single AMIFP training, nurses reported having Increased knowledge about patient engagement related to fall prevention. Moreover, feelings of confidence related to using some MI skills for fall prevention increased after training. Even a brief AMIFP training for nurses can have a positive	Level 2: Quasi- experimental	Limitations include data collection at a single hospital with a small sample size. The post- training survey only measured Immediate changes and not knowledge retention or attitude change over time. No sustainability over time measurement.	This would be a good study to use because it is in the same geographic area as the implementation hospital (Portland, OR). It is unknown if the study is generalizable, because the unit that the nurses received the education was not described. This would also help describe the confidence in the falls rating system.

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
		RNs, 10 CNAs and	Pre/post	Impact on Improving			
		six nursing	were	hospital nurses'			
		students.	completed	knowledge and			
		Five	by 61 nurses	attitudes to			
		respondents	(71%)	engage patients			
		did not report	response	In fall			
		the unit The	acute care	education			
		sample	hospital in	education			
		represented	the United				
		both day and	States.				
		night shift	Nurses				
		nurses (Day:	completed				
		36 and	the pre-				
		N1ght: 22),	survey right				
		and two	training and				
		surgical units	the post-				
		(Unit A: 20.	survey				
		Unit B: 41).	Immediately				
		Three	after the				
		respondents	training.				
		did not report	Surveys				

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		the shift that	were paper-				
		primarily	responses to				
		work.	the surveys				
			were kept				
			anonymous.				
			Participants				
			were asked				
			to create				
			four digit				
			code (e.g.,				
			last four				
			digits of a				
			phone				
			number) so				
			that their				
			responses				
			matched				
			between				
			pre- and				
			post- survey				
			responses.				

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
Lopez, M., Ma, C., Aavik, L., & Cortes, T. A. (2023). Implementing a quality improvement program to reduce falls and increase patient medication satisfaction in an academic medical center. <i>Geriatric</i> <i>Nursing, 49</i> , 207-211. https://doi.org/10 .1016/j.gerinurse .2022.09.002	An organizational workflow input process was launched in August 2019, which incorporates the Morse Falls Risk Scale in the electronic medical record, and a "Fall TIPS" check list.6, 7 Implementatio n of these new fall prevention initiatives seek to leverage existing work- flows, teamwork, and	quality improvement (QI) project was implemented on a medical unit in an urban academic medical center with more than three hundred beds. According to organizationa 1 internal data from	QI project medication fall risk factors and prevention intervention s were in alignment with Evidence Based Practice (EBP) guidelines and input from clinical team experts. A patient teach-back guide was developed	Sixty of the 80 participants (75%) completed the post survey 1 after taking the eLearning module. Seventy-eight of the eighty participants (81%) completed the 4-week post survey 2. In the pre-survey, 89% of participants agreed that they felt confident recognizing medication fall risks in	Level 5: Quality Project	Several contextual elements interacted with the RNs completing the eLearning module and applying medication fall safety measures teach-back guide interventions. During the project period there were competing unit priorities, unanticipated electronic glitches and basic	The level of evidence is low, however, this article would be good supplemental evidence to support RN fall education and a decrease in falls.

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Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
	tailored interventions. However, medicine RNs and team members expressed problem- focused concerns with recognizing and mitigating fall-risks associated medication use in older adult patient	2020, there were 28,973 patient discharges which accounted for 37% on the medical service. Of those patient discharges, 55% were patients 65 years old. The average age was seventy- seven, which ranks the	through the use of plain language and easy-to- understand concepts adapted from the guidelines. 13 Minimizing the risk that a patient will not understand the information provided is critical.14 Additionally , a nurse medication fall risks	collaboration with team experts. RNs reported 95% increase in confidence in recognizing medication fall risks in the immediate post survey 1 and 100% in 4- week post survey 2. RNs reported confidence in mitigating medication fall risk in collaboration with team members as 98.3% in the		nurse navigating capability with portal links to surveys. HCAHPS scores were reported in aggregate and also have limitations in pro- viding hospitals useful information on how to improve specific patient population experience.	

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
		highest to other specialty service. Most RNs identified as a female (91%) and years of professional practice experience (n=42; 53%) was less than 1 year. Seventy- four (93%) of the RNs had a Bachelor of Science in	facilitator guide for team rounds was also created in keeping with a health literate friendly approach (Fig. A.1). The Research Electronic Data Capture (REDCap) was used to distribute three surveys for RNs.	immediate post survey 1 and increased to 100% in 4- week post survey 2. In 4- week post survey 2, 97% of participants indicated that the educational intervention increased their knowledge and would recommend the module to other colleagues. Case review analysis (N=42) comparisons			

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		Nursing	A QI	pre-project			
		degree and	module was	n			
		44 (55%)	used to	, and post			
		hold a title of	educate	project			
		staff nurse	RNs,	implementatio			
			followed by	n showed no			
			a gap	overall			
			analysis and	decrease			
			then the	in falls for all			
			PDSA cycle	patients on this			
			and then	However			
			impact of	when we			
			nurses'	looked at			
			confidence	patients 65 and			
			utilizing	older (67% of			
			teach-back	total falls), our			
			with the	case reviews			
			patient and	showed			
			family	prior to project			
			"Medication	implementatio			
			fall safety	n there was			
			measures"	15/28 falls			

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
			guide.16	(54%)			
			The RNs	including			
			received	one fall with			
			mentoring	severe injury			
			by unit fall	and one fall			
			nurse	with minor			
			champions	injury.			
			with a	Following the			
			Gerontologi	project			
			cal Nurse	implementatio			
			Practitioner.	n, the fall			
			RNs were	count			
			observed	decreased to			
			with two	13/			
			patients (65	28 talls (46%),			
			years old)	including two			
			atter	talls with			
			viewing the	minor injuries.			
			eLearn-	Overall there			
			ing module	was an 8%			
			during each	reduction in			
			cycle	falls in this			
				population. In			

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
				this project patient population, we decreased falls even while the patients were at higher risk based on the Morse score post implementatio n. 6 208 M. Lopez et al. / Geriatric Nursing 49 (2023) 207211			
Money, A. G., Atwal, A., Boyce, E., Gaber, S., Windeatt, S., & Alexandrou, K. (2019). Falls	This study presents 'Falls Sensei' a first- person 3D exploration game that aims	Fifteen participants were recruited initially from adults attending an	A mixed methods data collection and analysis protocol was used to	The results support the use of serious games as an engaging tool for educating older adults	Mixed method (quantitative and qualitative). Level 3: observational study (questionnaire and	It is important to note that the findings relating to engagement have emerged from	This study would help support the idea of fall risk education being delivered via audiovisual program to patients.

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
Sensei: A serious 3D exploration game. <i>BMC</i> <i>Medical</i> <i>Informatics and</i> <i>Decision</i> <i>Making, 19</i> (85), 1-16. https://doi.org/10 .1186/s12911- 019-0808-x	to educate older adults about extrinsic falls risk factors within the home environment. After presenting Falls Sensei, game usability and older adults' perceptions and attitudes towards using the game in practice are explored.	Active 50s gym group on a university campus. Nine identified themselves as female and six as male. The participant's age ranged between 50 and 80 years old. One participant declined to give their age. Six Participants were aged 50–60 and 60–70, seven	address the specific research aims of this study, details of which are presented in this section.	about extrinsic falls risk factors. Awareness of home hazard detection was raised by the game, and some older adults became more aware for the need to adapt their own homes after gameplay. Further research would be needed to draw comparisons with established interventions. There was	interviews) and Level 2: case controlled study	participants that were explicitly issued with the task of engaging with, and playing the game as part of the trial, and did not emerge from an audience that elected to play the Falls Sensei game because they believed it would be engaging. Further research is required to explore	This is not generalizable to education of nurses, because it was not tested. Therefore, this study would not support the use of the evidence alone because the study had only fifteen participants and the sample demographics were limited.

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
		aged between 70 and 80. The inclusion criteria were age (fifty or over, basic computer knowledge and clear vision with or without correction (glasses/cont act lenses) due to the game currently not being size adjustable		evidence that as a consequence of playing the game, some older adults became more aware for the need to adapt their own homes in the future.		whether the prospect of playing a falls game such as Falls Sensei is perceived as a potentially more engaging prospect than engaging with more traditional forms of falls prevention education tasks/activitie s	
Moreira Ximenes, M. A., Albuquerque Brandao, M. G., Macedo, T. S.,	To evaluate the effectiveness of an educational intervention	The study setting was the medical- surgical clinic of a	This is a quasi- experimenta l study, of before and	Educational intervention using the booklet was effective in	Level 2: Quasi- experimental	Exclusion of illiterate patients with cognitive deficits and	This research article would support

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
Fejao da Costa, M. M., Galindo Neto, N. M., Caetano, J. A., . Barros, L. M. (2022). Effectiveness of educational technology for preventing falls in a hospital enviornment. <i>Acta Paulista de Enfermagem</i> , 35, 1-10. doi:10.37689/act a- ape/2022AO013 72	mediated by printed technology on knowledge about fall prevention in hospitalized patients.	trauma referral hospital, located in northern Brazil, Ceará State, from August to November 2019. The target population consisted of patients aged 18 years or older, admitted to the medical- surgical clinic of that institution during the data collection	after type, applied an educational intervention mediated by a booklet. The study included 86 patients hospitalized in a medical- surgical clinic. A knowledge test on fall prevention was used, containing 12 questions, which was previously validated by	providing guidance on the risk of falls in hospitalized adult patients.		mental confusion, due to the possible impediment to individual reading the booklet, as well as completing the data collection instruments. Moreover, the immediate assessment of knowledge, without longitudinal monitoring, made a medium and long-term assessment	

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
		period. As inclusion criteria were considered: being hospitalized in the medical clinic under study; being literate and obtaining minimum scores on the Mini Mental State Examination (MMSE), the cutoff points were considered: 21 for those with	professional s with expertise in patient safety. McNemar test was applied to assess, in a paired fashion, test responses before and after the educational intervention.			impossible, and the fact that the study was carried out only with people hospitalized in the public system, with no possibility of comparing the findings with supplementar y health network users are also configured as limitations.	

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
		between one and three years, 24 for individuals between four and seven years of formal education, and 26 for people with more than eight years of education.(12)					
Moreira Ximenes, M. A., Oliveira Fontenele, N. A., Bastos, I. B., Macedo, T. S., Galindo Neto, N. M., Caetano, J.	To build and validate an educational booklet to predict falls in the hospital.	After being built, the validation of the booklet was performed by nurses with expertise in	Methodolog ical study developed from the construction , validation and evaluation	The booklet entitled "Care not to fall into this" consists of 20 pages. In the content validation, the professionals	Level 7: expert opinion for pamphlet research. However, the pamphlet was based on Level 5 (systematic review of literature)	Source size and to exchange of the type of paper used for printing. generalization of the results	This would support patient education via education pamphlet. However, there was nothing in the research that correlates to RN

Article Title, Author, etc. (Current APA Format)StudySample (Characteris tics of the Sample: Demographi cs, etc.)MethodsStudy ResultsLevel of Evidence (Use Melnyk Framework)Study LimitationsWould Evide Supp Change?	Use as ince to oort a ? (Yes or rovide onale.
A., & Barros, L.care in theof theattributed theconsideringeducation	related to
M. (2019). hospital booklet by global CVI of that the falls. Then	refore,
Construction andenvironment,22 nurses1.0 to thebookletthis would	1 support
validation of patient safety and 22 objective, addresses supplement	ntal
educational or patients structure/prese prevention of evidence f	for fall
booklet content educational hospitalized nted and falls in the education	via
for fall technologies. In a medical material hospital written me	odality.
prevention in The sample clinic. For relevancia. In context,	
hospitals. Acta size was the the evaluation which made it	
Paulista de defined from validation of patients, the difficult to	
<i>Enfermagem</i> , $n = Za2.P(1 - with judges, overall CV1 of discuss the $	
$\frac{32(4)}{10}$ , 1-6. The the booklet formula The shirt include $\frac{1}{10}$ of \frac{1}{10} of $\frac{1}{10}$ of $\frac{1}{10}$ of $\frac{1}{10}$ of $\frac{1}{10}$ of $\frac{1}{10}$ of $\frac{1}{10}$ of \frac{1}{10} of $\frac{1}{10}$ of \frac{1}{10} o	
doi:10.1590/198 formula. The objective, was 0.98. studies with	
2- stipulated structure/pre the same	
Values were senting and theme.	
Za relevancia Another limitation is	
$\begin{array}{c c} (confidence & of the \\ level) = 0.5\% & material \\ \end{array}$	
P(i) = 95%, Illaterial ulat ule material was	
r Guuges were inaterial was	
assessed only ratio) = 85% and in the	
and evaluation by SUS (Brazilian	
(accepted with Unified	
difference patients the Health	

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		expected) = $15\%$ , which	Suitability Assesment			System) users in the medical	
		resulted in 22	of Materials			clinic sector,	
		judges. (11)	(SAM)			so that the	
			instrument			results	
			was applied.			obtained may	
			The Content Validity			the reality of	
			Index (CVI)			natients	
			was used to			assisted in the	
			analyze			private	
			each stage			healthcare	
			of the			network or	
			validation,			hospitalized	
			considering			in other	
			equal to or			sectors.	
			greater than				
			0.80. Of the				
			33 items				
			assessed by				
			patients, 24				
			indicated				
			100%				

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			agreement (CVI equal to 1.0). Another seven had CVI of 0.95 and two CVI equal to 0.90. The booklet's overall CVI in the validation with patients was 0.98.				
Morris, M. E., Haines, T., Hill, A. M., Cameron, I. D., Jones, C., Jazayeri, D., McPhail, S. M. (2021). Divesting from a	We investigated the impact of ceasing routine falls risk assessment tool (FRAT)	Adult inpatients admitted to participating hospitals (n = 10 hospitals, 123,176 bed days)	A parallel group cluster randomized controlled trial was used to compare the	Replacing a FRAT scoring system with clinical reasoning did not lead to inferior fall outcomes in	Level 2: Randomized Controlled Trial	It was confined to private hospitals in Australia. Although hospital-level randomization	This study did not address specific fall education, only how the fall risk was identified. Because this study did not see a positive or negative

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
scored hospital fall risk assessment tool (FRAT): A cluster randomized non- inferiority trial. <i>Journal of the</i> <i>American</i> <i>Geriatrics</i> <i>Society</i> , 69(9), 2598-2604. doi:https://doi.or g/10.1111/jgs.17 125	completion and instead used clinical reasoning to select fall mitigation strategies.		effects on falls of (i) continuing to use a traditional FRAT, versus (ii) removing the risk scoring elements whilst maintaining a list of potential falls mitigation actions to support clinical decision- making	the short term and may even reduce fall incidence. Our findings concur with previous clinical trials reporting that assigning risk- of-fall ratings does not reduce the odds of falling or the rate of falls.		among hospitals from diverse geographical areas protected against the risk of between- group contamination , there was some risk of a chance finding due to between- group differences in hospital characteristics , including historical fall rates. We had	correlation with the FRAT tool and or the clinical reasoning fall risk mitigation strategies this study would not support the evidence change. However, if there was a positive relationship with the FRAT standardized tool then it would aid in supporting a standardized education tool. Furthermore, this study was related to patient fall risk education, not nursing; therefore,

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
						planned to	not be generalizable
						complete	to nurses.
						for fall	
						incident	
						information	
						for 20% of all	
						medical	
						records in the	
						three-month	
						period of the	
						trial. This was	
						to avoid	
						uniustified	
						use of	
						resources on	
						this time	
						consuming	
						task after it	
						was observed	
						that fall	
						incident	
						mormation	

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
						was widely consistent between these two sources at each site.	
Najafi, Z., Barghi, M., Kooshyar, H., Karimi- Mounaghi, H., & Rodi, M. (2017). A comparison of the effect of education through video versus demonstration on fear of falling in nursing home residents of Mashhad, Iran. <i>Iranian Journal</i> of Nursing and Midwifery	Comparing the effect of education through video versus demonstration on fear of falling in nursing home residents	66 elderly residents, in 8 nursing homes.	-Quasi- experimenta l study -The participants were randomly divided into two groups of demonstrati on and video. Then, they received training. The participants' level of fear	Training elderly through video education showed a significant decrease in fear of falling for the elderly	Level 2: quasi experimental	-The limitation of this study was the difficulty of explaining some of the questions to the elderly. -Relatively small group of people	This would be supplemental evidence to support patient education via video. However, it may not be generalizable to nurses. However, it did show that video education for elderly population worked.

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
<i>Research, 22</i> (3), 195-200. doi:10.4103/173 5-9066.208160			of falling was measured through Fall Efficacy Scale.				
Ojo, E. O., & Thiam, W. (2022). Effects of nurse-led fall prevention programs for older adults: A systematic review. <i>Pacific</i> <i>Rim</i> <i>International</i> <i>Journal of</i> <i>Nursing</i> <i>Research, 26</i> (3), 418-431. https://europepm c.org/article/ME D/36051891	This systematic review aimed to gain insight into the effects of nurse-led fall prevention programs and identify gaps in knowledge relevant to nurse-led fall interventions for older adults.	Inclusion Criteria: This review examined research studies relevant to older adults ≥65 years old living in the community or any	Systematic Review and Meta- Analysis (PRISMA	"Tailoring Interventions for Patient Safety" (TIPS) (3 hospitals, 1 study, 37,231 patients) and fall risks assessment education for nurses <sup>•</sup> (1 hospital, 1 study, 581 patients) resulted in reduced falls. Fall prevention videos and	Level 1: Systematic Review	generalizabilit y limitations related to participants having a higher level of education than the general population, a small sample size (n = 30) coupled with a short period of one month of follow- up, financial limitations	This systematic review would be good to use to support nurse driven falls education. However, the patient population would not be generalizable to the surgical oncology patient mix, so there would need to be further research on this. The review also supported nurses educating patients, but did not

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		facility. The		poster boards with promotion		and a drop	speak to the
		study types		of measures		doubled that	training that the
		were any		that support		of CG. The	nurses had on the
		quantitative		independence		studies	education they
		study on		risk assessment		the literature	would provide the
				with Morse		review used	putiont.
		nurse-led fall		Fall Scale (1		different fall	
		interventions.		facility, 46,		prevention	
		They		residents, 1		program	
		identified		fall rates		that made the	
		nurses as		Nurses		study	
		main or part		provided fall		outcomes	
				prevention		very	
		of a fall		education that		challenging	
		prevention		identifying fall		Some relevant	
		program		risks.		articles may	
		provider		medication		have been	
				safety, or		missed	
		using		performance of		regarding	
		research		an exercise.		literature	

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
		methodologi		Nurses conducted and		search by limiting the	
		es including,		reinforced		search to only	
		but not		physical		five	
		limited to		exercise		databases.	
		nundomizad		programs.		Articles	
		Tandonnized		fall rates, and		languages	
		control trial		the rate of		other than	
		(RCT), non-		post-falls-		English were	
		RCT, and		related		excluded from	
		quasi-		complications		the review,	
		avnorimontal		reduced to $45\%$ (n - 5) of		which might	
		experimental		the $(n = 5)$ of		eliminated	
		design.		intervention		some crucial	
				group in the		studies that	
		Exclusion		studies.		met all other	
		Criteria:				criteria except	
		Articles				Eleven studies	
		nublished in				were selected	
		published in				from eight	
		non-English				different	

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
		languages,				countries. This review	
		non-peer-				may have	
		reviewed,				nurse-led fall	
		and				prevention	
		qualitative				programs	
		articles were				eleven studies	
		excluded				selected for	
		from the				other counties	
		study. We				of the world.	
		also excluded					
		fall					
		interventions					
		led by other					
		healthcare					
		professionals					
		. Conference					
		proceedings,					

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
		abstracts, dissertations, book chapters, editorials, and opinion pieces were excluded from this review.					
Ryan, S., Ward, M., Vaughan, D., Murray, B., Moore, Z., O'Connor, T., . Patton, D. (2018). Do safety briefings improve patient	The aim of the review was to answer the research question: 'Do safety briefings improve	All studies that evaluated the use of safety briefings in the acute hospital context and demonstrated	his systematic review employed methods informed by Cochrane guidance on conducting	The outcomes of the quantitative and qualitative evidence, there were notable points of contextual integration.	Level 1: systematic review	The SR was tailored to meet the needs of the hospital setting, therefore, this would not be generalizable	This article would support using safety briefings (rounds) to increase patient safety. Outcomes included improved risk identification, reduced falls, enhanced

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
safety in the	patient safety	results	reviews	The		for a non-	relationships,
acute hospital	in the acute	associated	(Cochrane –	quantitative		acute care	increased incident
setting? A	hospital	with patient	EPPI-	studies		setting. This	reporting, ability to
systematic	setting?'.	safety, were	Centre,	demonstrated		risk of bias is	voice concerns, and
review. Journal	U	included.	2018) and	how the		somewhat	reduced length of
of Advanced		Studies	was	processes of		mitigated	stay. However, it
Nursing, $73(10)$ , 2085, 2008		completed	conducted	the		unrougn the	<b>DN</b> aducation
2003-2090. doi:10.1111/jan			as per	identification		review	related to falls
1398/		hospital	guidelines	and resolution		process as it	Therefore would
13704		setting were	(Moher	of risk		can give	not be implicated of
		excluded.	Liberati.	whereas the		multi-site	RN fall education.
		Studies that	Tetzlaff. &	qualitative		perspectives.	Lastly, this study is
		involved the	Altman,	studies		When	generalizable to
		use of safety	2009) for	revealed how		outcomes are	hospitals using
		briefings but	quantitative	the structures		generated	briefings (rounds).
		were	studies and	and		from a range	
		combined	ENTREQ	interactions		of settings,	
		with	guidelines	that occurred		populations,	
		additional	for	in briefings		and	
		interventions,	qualitative	developed a		circumstances	
		therefore	studies	culture of		, systematic	
		posing	(Tong,	safety.		reviews can	
		difficulty in	Flemming,	Outcomes		give robust	

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		determining	McInnes,	included		and	
		causative	Oliver, &	improved risk		generalizable	
		factors, were	Craig,	identification,		evidence. The	
		also	2012). A	reduced falls,		range of	
		excluded.	mixed	enhanced		studies that	
		The scope of	method	relationships,		included	
		the review	multi-level	increased		general wards	
		also excluded	synthesis	incident		and whole	
		the operating	was	reporting,		hospital	
		theatre	conducted	ability to voice		studies (86%)	
		setting as	from our la	concerns, and		supports the	
		systematic	described by	of stay		that the	
		reviews on	Thomas et	of stay.		evidence is	
		this topic	al $(2004)$			generalizable	
		have	ui. (2001).			A lack of	
		previously				negative	
		been				findings could	
		conducted.				be further	
						indicative of	
						publication	
						bias.	
Sarkies, M. N.,	This study	Registered	Three study	Providing	Level 2: Controlled,	Changes in	This study would
Maloney, S.,	aimed to apply	nurses and	groups	video	3-group helix	knowledge do	help support the

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Symmons, M., &	a novel helix	enrolled	examining	knowledge	counterbalanced	not	evidence that video
Haines, T. P.	counterbalance	nurses from	the success	translation	randomized random	necessarily	education is better
(2019). Video	d randomized	all inpatient	of video and	strategies to	controlled trial	lead to	than written
strategies	controlled trial	wards, as	written	nursing and		behavior and	education and/or
improved health	design to	well as allied	research	allied health		health	verbal education.
professional	evaluate the	health	evidence	professionals		outcome	However, because
knowledge	effectiveness	professionals (physicthere	summaries,	increases the		changes;	this study only
across different	of video vs.	(physiothera	compared	uill understand		therefore,	nvolved neatthcare
contexts: A nenx	knowledge	py,	with usual	the main		regarding	professional and
randomized	translation	therapy	conditions	findings from		flow-on	unknown if the
controlled study	strategies for	speech	were	scientific		effects from	results would be
Epidemiology.	improving	pathology.	evaluated.	iournal articles.		improved	generalizable to a
<i>112</i> , 1-11.	health	dietetics.	These	Use of video		knowledge to	patient population.
doi:10.1016/j.jcli	professional	social work,	knowledge	abstracts may		practice	
nepi.2019.04.003	knowledge of	psychology,	translation	be a useful		change are	
-	evidence	podiatry, and	strategies	adjunct to		avoided. The	
	provided in	exercise	aimed to	publishing		majority of	
	scientific	physiology)	align	research in		participants	
	journal articles.	and allied	knowledge	dissemination		completed the	
		health	with the	activities.		study survey	
		assistants at	current			in sufficient	
		the study	research			time to have	
		hospitals	evidence for			watched the	

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		were all	three health			video and	
		eligible to	contexts: (1)			read the	
		participate in	promoting			written	
		the study.	physical			journal article.	
		Nursing staff	activity as			However, out	
		working in	an adjunct			of 119	
		aged care,	to			participants,	
		outpatient, or	anticoagula			19 completed	
		community	nt treatment			the survey in	
		services, and	after			less than 3	
		assistant in	diagnosis of			minutes. The	
		nursing	DVT, (2)			online survey	
		(AIN) staff	written falls			software did	
		working in	prevention			not enable	
		any setting	patient			control of	
		were	education			time to	
		excluded as	materials			completion to	
		they were not	follow up			encourage	
		be primery	from a			uith the	
		olipical	hoalth			interventions	
		decision	professional			Engagement	
		makers or	and (3)			rates reported	
		delegated	, and (3) bedside			in this trial are	
	l	uelegaleu	Deusiue			in uns utat ale	

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		providers of	pressure			similar to	
		interventions	sensor			those reported	
		for the health	alarms to			in other	
		contexts of	prevent			implementatio	
		interest in	falls. The			n studies	
		this study.	knowledge			where up to	
			translation			30% of	
			strategies			participants	
			were			may not	
			delivered,			engage fully	
			and data			with provided	
			were			strategies,	
			collected via			given these	
			an online			strategies	
			survey.			must	
						overcome	
						considerable	
						barriers to	
						research	
						implementatio	
						n	
Shaw, L. K.,	Health	hospitals.	At each of	The education	Level 2: quasi	The study	This article would
Kiegaldie, D.,	professional	clinical	the	workshop	experimental and	relied on self-	be a good
Jones, C., &	education has	•••••••	hospitals,	significantly	then post follow up	reporting, and	supplement in

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Morris, M. E.	the potential to	leaders (n = $16$ )	clinical	changed	telephone interview	did not	supporting a higher
(2021).	mitigate	46)	leaders (n = $46$ )	participants'	(quantitative	directly	level of evidence
hospital falls	nospital fails		46) received	views about	descriptive)	observe	study. Because this
screening and	methods to		a unee-	guidelines for		nrofessionals'	quantitative and
mitigation using	develop.		education	falls screening		behaviors in	qualitative, it would
a health	deliver and		program.	and prevention.		hospital	help support the
professional	evaluate health		The	Participants		settings. The	education. Also the
education	professional		education	felt more		time gap from	nursing population
framework.	education		program on	confident in		delivery of the	was not described,
Nurse Education	remain unclear.		the latest	assessing falls		education to	as well as the
<i>Today</i> , 98, 1-8.	This study		evidence in	risk and		the focus	hospital, therefore it
https://doi.org/10	applied		hospital	judging and		group and	is unknown if this
.1016/j.nedt.202	evidence-based		falls risk	implementing		semi-	study would be
0.104695	approaches to		assessment	the best		structured	generalizable.
	education		and how to	mitigation		phone	
	design to		implement	strategies.		interviews	
	risk mitigation		based falls	prepared and		in some	
	fisk initigation		screening	motivated to		attendees	
			and	educate others		having	
			managemen	about falls		changed jobs	
			t. This was	prevention and		since the	
			based on the	satisfied with			

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			"4P"	the skills		education was	
			education	gained.		delivered.	
			model	Nevertheless,			
			(Presage,	value was			
			Planning,	found in			
			Process and	conducting			
			Product).	robust program			
			They were	evaluations of			
			taught	recipients of			
			practical	education			
			skills to	using both			
			enable them	qualitative and			
			to educate	quantitative			
			other health	measures.			
			professional	Patient			
			S.	education was			
			Quantitative	beyond			
			data were	the scope of			
			collected via	this study,			
			three	even though it			
			surveys:	has been			
			Survey 1	shown to			
			(S1:	reduce falls.			

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			Immediately				
			prior to the				
			education				
			program),				
			Survey 2				
			(S2: Immediately				
			nost the				
			education				
			program)				
			Survey 3				
			(S3: Six				
			months post				
			implementat				
			ion				
			of the new				
			screening				
			tool).				
			Survey 3				
			was an				
			online				
			survey				
			developed				
			in Qualtrics.				

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			Qualitative				
			data were				
			semi-				
			structured				
			telephone				
			in-				
			Interviews				
			and a focus				
			group				
			interview				
			post-				
			implementat				
			10 <b>n</b> .				
			Telephone				
			and the				
			focus group				
			were audio-				
			recorded				
			and				
			transcribed				
			to				
Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
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			ensure				
			By using				
			interactive				
			teaching				
			methodologi				
			es, such as				
			the ones				
			employed in				
			this study,				
			they may be				
			more likely				
			to think critically				
			employ				
			clinical				
			reasoning				
			into their				
			daily				
			clinical				
			practice and				
			educate				

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			others to achieve this goal				
Shaw, L., Kiegaldie, D., & Morris, M. E. (2021). Educating health professionals to implement evidence-based falls screening in hospitals. <i>Nurse</i> <i>Education</i> <i>Today, 101</i> . 1-8. doi:10.1016/j.ne dt.2021.104874	The aim of this study was to design, deliver and evaluate an interprofession al education program for healthcare professionals on how to implement a modified version of the safe recovery program to prevent falls in hospitalized patients.	The study took place on the medical wards of an Australian private acute hospital. All allied health professionals and nurses working on the intervention ward were eligible and invited to participate via email. On the day of the IPE intervention,	Thirty-four health professional participants attended a 1-h face-to- face or Zoom® interprofessi onal education session to learn how to deliver an evidence- based patient falls prevention education strategy, the modified	A 1-hour education session was insufficient to build full confidence to deliver the Safe Recovery Program. There was no statistically significant change in participant views on interprofession al collaboration. Participants recommended prior	Level 2: Quasi- Experimental	This program was not tested on patients, only on healthcare professionals.	Yes, this would support research of educating healthcare professionals. However, this was not correlated to the results of patient falls. Therefore, this should only be in support of educating healthcare professionals.

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
		consenting	Safe	consultation			
		participants	Recovery	and			
		PICE pre-	Program.	before delivery			
		test and post-		of IPE, with			
		test surveys.		additional			
				opportunities			
				for discussion			
				and feedback			
				during			
				n with patients			
				The findings			
				highlight the			
				importance of			
				interprofession			
				al education			
				for evidence-			
				based			
				in hospitals			
				Health			
				professionals			
				value			

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
Show I				education that is timely, interactive, realistic and engaging.			
Snaw, L., Kiegaldie, D., Heng, H., & Morris, M. E. (2023). Interprofessional education to implement patient falls education in hospitals: Lessons learned. <i>Nursing Open</i> , 10(1), 36-47. doi:10.1002/nop 2.1276	The aim of this study was to design, deliver and evaluate an interprofession al education program for healthcare professionals on how to implement a modified version of the safe recovery program (SRP) to prevent falls in hospitalized patients.	medical wards of an Australian private acute hospital. All allied health professionals and nurses working on the intervention ward were eligible and invited to participate via email. On the day of the IPE intervention,	I he study employed a mixed methods pre- and post questionnair e design followed by semi- structured telephone interviews, to triangulate the data from different approaches.	A 1-hour education session was insufficient to build full confidence to deliver the Safe Recovery Program. There was no statistically significant change in participant views on interprofession al collaboration. Participants	Level 5: Qualitative study mixed with quantitative descriptive	a single education session is not enough for lasting changes in health professional knowledge and patient falls prevention behaviors. The implementatio n sciences literature, coupled with these findings,	This would be a good supplemental evidence to support RN education on falls. However, there was not enough statistical significance to base RN education model directly using this research. Also, there was a low n therefore, more participants would likely be needed to apply significance.

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
		consenting	Sequential	recommended		reinforce the	
		participants	exploratory	prior		need for co-	
		completed a	design was	consultation		production of	
		PICF, pre-	used with	and		falls	
		test and post-	the	preparation		education,	
		test surveys.	interview	before delivery		involving the	
		1 mrty-lour	data building on	of IPE, with		interprofessio	
		professionals	the survey	opportunities		nal team	
		professionals	results	for discussion		Developing	
			Participants	and feedback		and	
			received a	during		evaluating	
			1-h IPE	implementatio		health	
			program,	n with patients.		professional	
			which was	The findings		education	
			the most	highlight the		programs	
			time	importance of		using the 4P	
			available for	interprofession		model of	
			busy	al education		education	
			clinicians to	for evidence-		design,	
			attend. The	based		ensures all	
			program	interventions		elements of	
			educated	in hospitals.		the teaching	
			participants	Health		context,	

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
			on the latest	professionals		student	
			evidence on	value		approaches to	
			education	is timely.		the outcomes	
			for falls	interactive,		of learning are	
			prevention,	realistic and		considered.	
			how to	engaging		Low number	
			implement			of participants	
			SRP and			(n number).	
			how to				
			achieve				
			effective				
			interprofessi				
			onal				
			collaborativ				
			mixture of				
			interactive				
			teaching				
			methods				
			was used				
			including				
			sman group				

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
			discussion				
			on				
			participants'				
			current falls				
			prevention				
			education to				
			patients, a				
			small group				
			critical				
			thinking				
			activity on				
			the barriers				
			and				
			facilitators				
			to delivering				
			falls				
			prevention				
			education to				
			patients, and				
			content				
			delivery on				
			the latest				
			evidence on				
			patient				

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
			education				
			and its role				
			in falls				
			prevention				
			in hospitals.				
			Three pre-				
			recorded				
			vignettes				
			using				
			simulated				
			participants				
			demonstrate				
			d delivery				
			of the				
			modified				
			SRP.				
			Laminated				
			scripts of				
			the modified				
			SKP were				
			provided for				
			participants				
			during the				
			auring the				

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
			education				
			intervention				
			and				
			for				
			implementat				
			ion				
			Multiple				
			copies were				
			also				
			available on				
			the hospital				
			ward				
			throughout				
			implementat				
			ion of the				
			intervention.				
			The				
			PowerPoint				
			presentation				
			of the				
			education				

was made available for

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
			those staff unable to attend training and to supplement learning for staff who attended.				
Shepard, D., Clarke, E., Hemming, K., Martin, J., & Lilford, R. (2021). An opportunistic evaluation of a routine service improvement project to reduce falls in hosptial . <i>BMC Health</i> <i>Service</i> <i>Research</i> ,	To describe the intervention designed to implement the RCP and NICE guidelines. b) To evaluate the intervention by analyzing routinely collected falls data by means of a step- wedge design. Implementatio	36 wards in a hospital in University Hospitals Coventry and Warwickshir e NHS Trust. It was part of the main hospital site, which has 1100 beds	This implementat ion and evaluation covered all 36 wards in the hospital. The study was set up in such a way as to include 19 of the 36 wards in a step-wedge	There was an average of 6.62 falls per 1000 OBDs recorded during the control period. This decreased during the post- intervention period, to an average of 5.89 per 1000 OBDs.	Level 2: :RCT	This is a study with no contemporane ous, let alone randomized, controls. Also, because the research was rolled out fast there was no way to have a controlled group for the baseline.	This is a good article to use to support the TIDieR check list for fall intervention. However, this did not talk about the education process to educate RNs on fall interventions, it focused on outcome measures. This study was implemented in a hospital (36 wards),

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
21(79), 1-11. https://doi.org/10	n of the TIDieR check		cluster RCT. The				however, the wards did not describe the
.1186/s12913-	list to see if it		remaining				patient population it
021-06073-4	reduced falls.		17 wards				serves making it
			were				limited for
			deemed				generalizability.
			unsuitable				
			10r rondomizati				
			on All				
			occupied				
			bed days				
			and all falls				
			between				
			June 2015				
			and April				
			2018				
			contributed				
			to the study.				
			The				
			intervention				
			was rolled				
			out between				
			May 2017				

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
			and August				
			2017. The				
			randomized				
			rollout of				
			the				
			intervention				
			occurred in				
			June and				
Casas Castrola	These	he CDC	July 2017.	Å re		Orla	This study mould
Spano-Szekely,	I hree primary	ne CPG	an interneteesi	An		Only	I his study would
L., WINKIEF, A.,	goals were	chosen was	interprofessi	interprotession		generalizable	be generalizable to
Waters, C.,	established: (1)	for Clinical	onal fall	al team		to the	the med/surg acute
Dealifielda, S., Drondt V	reduce the	for Chilical	team was	successfully		med/surg	care patients. This
Williomson M	(number of	Improvement	commission	with on		patient	implementation
Wright E	$f_{\rm ollo}/1000$	Hoolth Coro	ad by the	with an	Loval 1: CPC	The remote	happementation
(2010)	nationt days)	Protocol on	chiof	fall provention	(informed by	vieuol	Level 1 evidence
(2019). Individualized	(2) oliminato	Provention of	chief	nrogrom The	(informed by	visual	CPG based on a
fall prevention	(2) eminate	Falls in	officer to	fall rate	systematic review)	(cameras	CFO Daseu Oll a
program in an	injury through	A cute Care	evaluate the	decreased to		watching fall	and then additional
acute care	an evidence-	Institutions	hospital's	1 14 with a		risk natients)	evidence-based
setting <i>Iournal</i>	based fall	This CPG	current fall	72% expense		were added	guidelines added to
of Nursing Care	prevention	was chosen	prevention	reduction		later in the	the CPG that were
<i>Quality</i> , <i>34</i> (2),	protocol, and	because it	program.	based on		study.	not addressed. The

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
127-132.	(3) increase the	focused on	The	decreased sitter		However, the	education was for
doi:10.1097/NC	percentage of	an adult	evidence-	usage.		falls data	the RNs and
Q.000000000000	patients who	acute care	based	With full		calculation	interdisciplinary
0344	receive	setting and	practice	implementatio		was	team as well as the
	appropriate fall	was	improvemen	n of the fall		completed	patients (RNs
	risk assessment	appraised as	t (EBPI)	prevention		before and	educated patients
	and	high	model	program and		after the	once they were
	individualized	quality. <sup>6</sup> The	developed	the addition		camera	educated).
	fall prevention	CPG	by Levin	of video		monitoring	
	interventions.	identified /	and 4	monitoring, we		and there was	
	The PICO	key practices	colleagues	had a 54%		still a	
	question was:	foll	was used as	fella from 2.51		implementatio	
	III adult hospitalized	nevention:	of using	falls per $1000$		n of the	
	medical-	prevention.	or using	nation t days for		li ol tile	
	surgical	1 Organizat	based	the fiscal year		monitoring	
	patients does	ional	practice	2014  to  1.15		monitoring.	
	an evidence-	support	(EBP) to	falls per 1000			
	based fall	for a fall	improve	patient days for			
	prevention	preventio	patient care.	the last half of			
	program that	n	Through	2016 and first			
	includes	program	small tests	half of 2017 on			
	comprehensive	2. A process	of change	the inpatient			
	assessment and	for	(STC) using	medical-			

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
	individualized interventions based on patient-specific risks decrease the fall rate?	<ul> <li>evaluatio <ul> <li>n of the</li> <li>hospitaliz</li> <li>ed patient</li> <li>on</li> <li>admissio</li> <li>n for risk</li> <li>of falling</li> </ul> </li> <li>3. Risk <ul> <li>assessme</li> <li>nts to</li> <li>identify</li> <li>risk</li> <li>factors</li> </ul> </li> <li>4. Commun</li> <li>ication of</li> <li>risk</li> <li>factors</li> </ul> <li>5. Risk <ul> <li>factor</li> <li>interventi</li> <li>ons</li> </ul> </li> <li>6. Observati <ul> <li>on and</li> </ul> </li>	Plan, Do, Study, Act cycles, <sup>5</sup> we evaluated each aspect of a proposed improvemen t before a large pilot or organization -wide implementat ion.	surgical units. n addition, a 72% reduction in sitter usage equating to \$84 000 in annual savings was noted (this would be higher in a larger hospital and in a hospital that did not have an existing geriatric cluster).			

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
		surveillan ce 7. Auditing, continuo us learning, and improve ment					
Turner, K., Staggs, V., Potter, C., Cramer, E., Shorr, R., & Mion, L. C. (2020). Fall prevention implementation strategies in use at 60 United States hospitals: A descriptive	To identify and describe the prevalence of specific hospital fall prevention implementatio n strategies.	US hospitals participating in the National Database of Nursing Quality Indicators (NDNQI) were selected for participation in this study.	A cross- sectional study design to identify and describe the prevalence of in- hospital, organization al-level fall prevention implementat	Hospitals were more likely to use leadership strategies, such as updating fall policies in the past 3 years (98%) but less likely to reward staff (40%). Hospitals commonly	Level 4: Cross- sectional descriptive study	small number (n=60) of hospitals participating in NDNQI, and the characteristics of the study sample differed from AHA hospitals, a nationally	This study included hospitals with low fall rates. While it did have some survey respondents state that they did RN fall education, it did not list the education that they received. It also showed that pt education, fall protocols, fall

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study. BMJ		Eligibility	ion	used		representative	videos, fall
Quality & Safety,		included	strategies in	interdisciplinar		sample. the	assessments, fall
29(12), 1000-		non-tederal	2017 was	y falls		comprehensiv	flags, etc.
1007. doi:10.1136/bmi		nospitals that	used. The	(83%) but		eness of data	I nerefore, this is a
as-2019-010642		natient falls	analysis was	(85%) but membershin		might vary	support RN
q5 2017 0100 <del>1</del> 2		data for O1	the hospital.	rarely included		across	education related to
		or Q2 2017.	We adhered	physicians.		hospitals	falls, but not the
		Press Ganey,	to the	Hospitals		given that one	education that was
		the	Strengtheni	lacked access		individual at	provided.
		organization	ng the	to electronic		the hospital	
		that owns the	Reporting of	health record		was tasked	
		NDNQI, sent	Observation	tools, such as		with	
		out 800 study	al Studies in	high-risk		collecting	
		invitations to	Epidemiolo	medication		data from	
		hospitals	gy checklist	warnings		multiple	
		meeting the	Ior cross-	(2/%).		sources. 10	
		above criteria	studies to	strategies were		risk we relied	
		of recruiting	report the	commonly		on the	
		80 sites	study	used: 100% of		NDNOI site	
		Within 24	findings	hospitals		coordinator in	
		hours, 189	0	provided fall		each hospital	
		hospitals		education at		to assist with	

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		expressed		staff		data	
		interest in		orientation, but		collection.	
		we used this		only 22%		This study	
		convenience		employees (not		at the hospital	
		sample of		just nursing		level and did	
		1\$89		staff).		not allow for	
		volunteers to				comparisons	
		randomly				of fall	
		select 80				prevention	
		hospitals to				implementatio	
		participate				n across units	
		random				same	
		sampling				hospital Surv	
		We sampled				ev also did	
		to include 20				not capture	
		hospitals in				risk factors	
		four strata				for falls, such	
		based on				as	
		teaching				environmental	
		status				tactors or	
		(yes/no) and				hospital	
		nospital size				practices	

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		(<200  beds) and $\geq 200$				regarding bed moves. It is	
		beds)				also unclear	
						whether the	
						low quality of	
						evidence for many fall	
						prevention	
						interventions <sup>1</sup>	
						<sup>1–14</sup> partially	
						explains	
						hospital	
						fall	
						prevention	
						strategies.	
Twibell, K. R.,	To understand	30 cancer	Sample was	Primary cause	Level 6:	Single	This study would
Siela, D.,	patient's	patients at	stratified	of inpatient	Descriptive	hospital	be generalizable to
Delaney, L.,	perspectives	Indiana	into two	falls is no	exploratory	setting that	the inpatient
Avila, P.,	and level of	University	categories:	patient	qualitative study	was	oncology patient
Spradlin, A., &	engagement	Health Ball	those who	engagement in		interviewed,	population. This
Loers, G. $(2020, 101)$	related to Tall	Hospital	had a near	nan prevention		diversity of	study would also
Perspectives of	plans, and to	Inclusion	fall between	six themes		ethnicity, only	descriptive aspect

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inpatient with	discover new	criteria was:	time of	emerged: need		inpatient	of the project
engagement in	about their	non critical	nospitalizati	bed not		only patients	nurses educate the
fall prevention	perspective	care unit:	admission	wanting to call		interviewed	nuises educate the
Oncology	and to improve	diagnosis of	and study	for hep.		over 57 years	reasons why they
Nursing Forum,	the design of	cancer for	enrollment,	mobilization		of age.	are on a fall
47(4), 457-468.	fall education.	the present	and those	and being able		U	prevention plan.
doi:10.1188/20.	The secondary	hospital	who had not	to "hold onto"			
ONF.457-468	purpose was to	encounter;	fallen	things for			
	compare	ability to	between	stabilization,			
	perspectives of	speak, read,	time of	no education			
	patients who	and	hospitalizati	related to			
	have and have	understand	on	increased fall			
	not fallen.	English; not	admission	risk because of			
		pregnant;	and study	cancer diagnosis not			
		bear	No	liking to wait			
		adequately	theoretical	(causing anger			
		medically	framework	shame and			
		stable; at risk	was used.	frustration).			
		for falls as	Qualitative	and the			
		scored by the	descriptive	relationship			
		fall risk	exploratory	with the nurse			
		assessment	approach	(not			

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
		tool;	was used.	understanding			
		cognitively	Interview	need for			
		alert and	questions	privacy, and			
		oriented; not	were given	being treated			
		receiving	via an	"child-like,"			
		hospice or	interview	and being			
		end-oi-life	guide at the	embarrassed).			
		Care.	patient s	The results			
		exclusion eritoria was:	The	the puree peeds			
		medical	interviews	to increase			
		diagnosis of	lasted	therapeutic			
		dementia	hetween 7	communication			
		delirium or	to $20$	focus on the			
		confusion:	minutes.	nurse-patient			
		medically	Interviews	relationship.			
		unstable; or	were audio	educate the			
		enrolled in	recorded	patient on the			
		another	and	fall plan,			
		research	transcribed	implement			
		study or trail.	by	scheduled			
			interviewer.	toileting, and			
			Demographi	try education			
			c and				

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
			clinical data	via video education			
			gathered	education.			
			from the				
			patient's				
			electronic				
			health				
			record. The				
			stoppod				
			when the				
			interviewers				
			reached data				
			saturation.				
Wang, SC.,	The effects of	-140	Quasi-	-The results	Level 2:	-The results of	This study showed
Lee, DC., Lee,	a multimedia-	participants	experimenta	indicate that	randomized control	this study	that multimedia-
YH., Chang,	based patient	-Seventy	1	attitudes,	trial	indicated that	based education
YP., & Chu, I	education	participants		knowledge,		most internal	decreased falls.
L. (2021).	intervention on	in the		and behaviors		medicine	Their data was also
Effects of	knowledge,	experimental		regarding fall		inpatients did	statistically
multimedia-	attitudes, and	group		prevention		not read	significant. This
based fall	behaviors	received		among patients		health	showed that video
prevention	regarding fall	multimedia-		in the group		education	education was
education on the		based patient		who received		leaflets. It is	beneficial for

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knowledge,	prevention	education		the		possible that	patients, however,
attitudes, or	were observed.	and a health		multimedia-		patients	it did not analyze
behaviors of		education		based patient		experienced	the effects of video
patients. Japan		leaflet, while		education, and		discomfort	education on
Journal of Numing Science		those in the		a health		after	this would only be
10(2) 1-11 doi:		received only		leaflet were		may have	supplemental
19(2), 1-11.001. 10 1111/iins 124		the health		higher than		effected their	evidence
55		education		those among		ability to read	e vidence.
		leaflet. A		patients who		In addition.	
		structured		only received		the content of	
		questionnaire		the health		the health	
		was used for		education		education	
		data		leaflet; the		leaflets was	
		collection at		differences		primarily text,	
		baseline, and		were		which may	
		a posttest		statistically		have been	
		was applied		significant.		difficult to	
		after the		-Multimedia-		read and led	
		intervention		based patient		to an overload	
				education		of health	
				influenced		education	
				inpatients'		information	
				knowledge,		for internal	

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
				attitudes, and		medicine	
				behaviors for		inpatients.	
				preventing		-Patients'	
				falls		knowledge	
						and behaviors	
						regarding fall	
						differed	
						among	
						clinical	
						departments	
						(one cohort	
						was from a	
						pulmonology	
						clinic while	
						the other	
						cohort was	
						Irom a	
						gastroenteroio	
						gy chinc).	
						influenced the	
						patient's risk	
						to fall (with	

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
						the gastroenterolo gy patients being more likely to fall than those in the pulmonary clinic).	
Wisler, H., Prado, G., & Cohn, T. (2021). Reducing unwitnessed falls on a medical- surgical unit. <i>Medsurg</i> <i>Nursing, 35</i> , 1- 10. doi: 10.37689/acta- ape/2022AO013 72.	Due to this high-risk population, unpredictabilit y of falls, and the medical- surgical unit not consistently meeting the national benchmark of zero falls, this performance improvement project was	medical surgical patients over age 18 who were at risk for falls based on criteria on the fall safety contract. Patients included spoke English or Spanish. Patients	Under the Plan-Do- Study-Act (PDSA) model, the Plan involved creating a contract between patients and staff to reduce the number of unwitnessed falls	This project showed implementing a fall safety contract along with fall prevention education is a viable strategy to reduce the number of falls occurring on a medical- surgical unit. Decreased	Level 5: Quality Project	If the patient did not have a signed contract they were not included in the study. RNs were also not consistent, and there was supplemental staff from the float pool. Staffing limitations with high	This would be good supplemental evidence for decreasing unwitnessed falls related to implementation of a fall patient contract. There were not enough details about the RN education related to falls for this to substantiate a change. Also, RN education related to

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
	initiated. The	considered at	occurring in	unwitnessed		RN:pt ratio	the project was only
	project unit	risk for falls	the inpatient	Talls by 50%.		(1:/), high	at shift huddles.
	falls per 1 000	admitted for	50% One of			(1.20)	
	patient days	surgery, had	the authors			Education and	
	before	a seizure	who worked			contract	
	implementing	history, had a	on this unit			adherence	
	the fall safety	recent fall,	developed			also required	
	contract,	were	the contract,			patients to be	
	slightly more	connected to	which then			alert and	
	than half the	hospital	was			oriented to	
	national	equipment,	approved by			their specific	
	average but	or took	the nurse			situation. For	
	substantially	medications	manager. Th			example, the	
	greater than	in defined	e contract			contract 1s not	
	1 000 patient	(blood	in part on			to prevent	
	days	nressure	the Johns			falls if	
	days.	management	Hopkins			patients	
		sleep aids,	Fall Risk			cannot	
		anti-seizure,	Assessment			remember	
		muscle	Tool (Johns			they are at	
		relaxants,	Hopkins			risk for falls.	
		analgesics,	Medicine,			Only 96	

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
		diuretics,	2007). The			contracts were	
		respiratory	tool			collected	
		treatments,	included			August-	
		treatment of	chemical			October,	
		allergies,	fisks for			suggesting	
		laxatives).	Talls (e.g.,			admission or	
			classes of			transfer to the	
			medications			unit daily	
			) and			However, this	
			physical			number is	
			risks for			unrealistic;	
			falls (e.g.,			the target	
			being			number	
			tethered to			should have	
			an IV pole			been closer to	
			or SCDs).			300 over 3	
			Most			months. The	
			patients			unit typically	
			demonstrate			sees three to	
			d physical			tive	
			risks			admissions	
			because it			daily.	
			was unlikely			Unfortunately	

Article Title, Author, etc. St (Current APA Pu Format)	tudy irpose Sample Characteri tics of the Sample: Demograph cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
		they would			, no	
		be bospitalized			aumission/tra	
		without IV			could be	
		fluids or			collected at	
		SCDs. The			the time of the	
		contract			project.	
		thus was				
		written				
		intentionally				
		almost all				
		natients				
		admitted.				
		The				
		agreement				
		was				
		translated				
		into Spanish				
		and verified				
		by two				
		nospital-				
		Spanish				

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
			interpreters.				
			The contract				
			was an				
			important				
			element in				
			educating				
			patients				
			regarding				
			their				
			specific risk				
			for falls				
			because				
			they often				
			did not				
			know why				
			they were at				
			risk for falls				
			in the				
			nospital				
			when they				
			may not				
			nave been at				
			risk before				
			admission.				

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
			Data were				
			collected				
			through				
			hospital				
			reports for 5				
			hefore and				
			after				
			implementat				
			ion, with a				
			1month				
			washout				
			period while				
			staff learned				
			the new fall				
			prevention				
			education				
			and tall				
			safety				
			contract				
			process. Staff				
			education				
			regarding				

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
			the project				
			was done				
			daily in the				
			morning				
			nuddle during the				
			washout				
			period.				
			Reinforcem				
			ent of the				
			program				
			then was				
			done in the				
			shift change				
			huddle				
			when				
			patients had				
			been				
			admitted				
			overnight or				
			the day				
			Specifically				
			only the				

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
			number of				
			unwitnessed				
			falls was				
			recorded.				
			Post-				
			ion data				
			included				
			documentati				
			on of				
			patients'				
			receipt of				
			the				
			evidence-				
			based Call,				
			Don't Fall				
			safety				
			contract and				
			tall				
			prevention				
Vong V. Vuo	Fall provention	127	The ten 200	The DISCEPN	Laval 1: norrativa	All videos	This study would
$\begin{array}{c} 1 \text{ allg, } \Lambda, \Lambda uc, \\ X \text{ Shi } 7 \text{ Nan} \end{array}$		137 VouTube	watched	instrument	review and expert	reviewed	he a great
S. Lian C. Ji	videos are	videos	videos on	indicated that	opinion	were in	supplement to the
~., Liuii, C., 91,	available on	14005	14005 011	maleutea mat	Shinon		supplement to the

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
Z., & Liu, X. (2022). The reliability, functional quality, understandability , and actionability of fall prevention content in YouTube: An observational study. <i>BMC</i> <i>Geriatrics</i> , 22(654). doi:10.1186/s128 77-022-03330-x	YouTube, however, their reliability, functional quality, understandabili ty, and actionability have not been verified. This study was to rate the videos reliability, quality, understandabili ty, and actionability for use.		YouTube related to fall prevention were retrieved. After exclusion, all qualified sample videos were evaluated by three validated assessment instruments (the PEMAT scale, the HONCode scale, and the DISCERN instrument)	115 videos (83.94%) were of moderate to high overall quality. Medic al practitioners and organizations gained the highest scores in functional quality and reliability ( $P < 0.05$ ), while they also tended to use technical terms more often (mean = 3.15). The HONCode scale suggested a lack of traceability was common.		English, did not study the relationship between video comments and misleading information due to the limited time.	importance of health education videos. This study would also be important in making sure that the health education videos were reliable, had functional quality, understandability, and actionability. Therefore, I wouldn't use this study to base my support on, but it could be supplemental.

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
			regarding	The most			
			their	popular and			
			reliability,	actionable			
			functional	form of			
			quality,	expression was			
			understanda	workout			
			bility, and	(n=58,			
			actionability	median			
			. Each	score = 86.90,			
			Video s	P < 0.03),			
			number of	and keynote			
			views/likes/	presentations			
			comments	scored the			
			forms of	highest in			
			expression	understandabili			
			and the	ty (no			
			uploader's	significant			
			profile were	difference			
			collected as	between them).			
			well. The	The PEMAT			
			Wilcoxon	scale suggested			
			rank sum	videos			
			test was	uploaded by			

Article Title, Author, etc. (Current APA Format)	Study Purpose	Sample (Characteris tics of the Sample: Demographi cs, etc.)	Methods	Study Results	Level of Evidence (Use Melnyk Framework)	Study Limitations	Would Use as Evidence to Support a Change? (Yes or No) Provide Rationale.
			performed for further analysis from the perspective of expression forms and uploaders' identities.	medical teams were the easiest to be understood (P = 0.011 and $P < 0.001$ , respectively), whereas they were less actionable than those made by fitness trainers (P = 0.039 and $P < 0.001$ , respectively).			

# Appendix B – IOWA Model Permission

[External] Permission to Use The Iowa Model Revised: Evidence-Based Practice to Promote Excellence in Health Care



Kimberly Jordan - University of Iowa Hospitals and Clinics <survey-bounce@survey.uiowa.edu> To: Sloane, Danielle Nina

You don't often get email from survey-bounce@survey.uiowa.edu. Learn why this is important

[EXTERNAL EMAIL: Do not click any links or open attachments unless you know the sender and trust the content.]

You have permission, as requested today, to review and/or reproduce The Iowa Model Revised: Evidence-Based Practice to Promote Excellence in Health Care. Click the link below to open.

#### lowa Model - 2015.pdf

Copyright is retained by University of Iowa Hospitals and Clinics. Permission is not granted for placing on the internet.

Reference: lowa Model Collaborative. (2017). lowa model of evidence-based practice: Revisions and validation. Worldviews on Evidence-Based Nursing, 14(3), 175-182. doi:10.1111/wvn.12223

In written material, please add the following statement:

Used/reprinted with permission from the University of Iowa Hospitals and Clinics, copyright 2015. For permission to use or reproduce, please contact the University of Iowa Hospitals and Clinics at 319-384-9098.

Please contact UIHCNursingResearchandEBP@uiowa.edu or 319-384-9098 with questions.

Tue 1/17/2023 7:55 PM

# **Appendix C – Participant Consent**

# Consent

**Title of the Project:** Impact of Fall Education to Nursing Staff on Oncology Patient Fall Rates **Principal Investigator:** Danni Sloane, Doctoral Candidate, School of Nursing, Liberty University

#### Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be at least 18 years or older; an RN, CNA1 or CNA2; work on the medical or surgical oncology unit. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research.

### What is the study about and why is it being done?

The purpose of this study aims to evaluate the effects of fall education of RNs and CNAs on the medical and surgical oncology floor on oncology patient fall rates.

# What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following:

- 1. Take pre-test on fall prevention and demographic data, which will be multiple choice via paper and pencil or via Microsoft Forms link. This will take no more than 10 minutes to complete.
- 2. Participate in an in-person or virtual in-service that will take no more than 1 hour.
- 3. Take a post-test on fall prevention learnings that will be multiple choice via paper and pencil or via Microsoft Forms link. This will take no more than 10 minutes to complete.
- 4. Fill out the educational session evaluation. This will take no more than 5 minutes to complete.

### How could you or others benefit from this study?

The direct benefits participants should expect to receive from taking part in this study include learning more about the organization's fall prevention policies and procedures, as well as new evidence-based fall prevention practices.

Benefits to society include decreasing the patient fall rate on the pilot study's units.

## What risks might you experience from being in this study?

The expected risks from participating in this study are minimal, which means they are equal to the risks you would encounter in everyday life.
#### How will personal information be protected?

The records of this study will be kept private. Published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records.

- Participant responses will be kept confidential by replacing names with pseudonyms.
- Data collected from you may be used in future research studies and/or shared with other researchers. If data collected from you is reused or shared, any information that could identify you, if applicable, will be removed beforehand.
- Data will be stored on a password-locked computer in a locked office. After five years, all electronic records will be deleted, and all hardcopy records will be shredded.

#### How will you be compensated for being part of the study?

Participants will not be compensated for participating in this study. At the conclusion of the inservice, participants will be entered to win a \$20 Starbucks gift card. Any participant who chooses to withdraw from the study after beginning but before completing all study procedures will still be entered to win the gift card.

# Is the researcher in a position of authority over participants, or does the researcher have a financial conflict of interest?

The researcher serves as a Director of Nursing at the server as a Director of Nursing at the ser

#### Is study participation voluntary?

Participation in this study is voluntary. Your decision on whether to participate will not affect your current or future relations with Liberty University or

If you decide to participate, you are free to not answer any question or withdraw at any time prior to submitting the survey without affecting those relationships.

#### What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please inform the researcher that you wish to discontinue your participation and do not submit your study materials. Your responses will not be recorded or included in the study.

#### Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Danni Sloane. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at 503-869-9044 or You may also contact the researcher's faculty sponsor, Dr. Rachel Joseph, at

#### Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the IRB. Our physical address is Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA, 24515; our phone number is 434-592-5530, and our email address is irb@liberty.edu.

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

#### **Your Consent**

By signing this document, you are agreeing to be in this study. Make sure you understand what the study is about before you sign. You will be given a copy of this document for your records. The researcher will keep a copy with the study records. If you have any questions about the study after you sign this document, you can contact the study team using the information provided above.

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

Printed Subject Name

Signature & Date

## Appendix D- Participants in Pre- and Post-test Demographic Data

(will put demographic data here once collected—copy of demographic questionnaire)



1. What is your age:

□ 18-25 □ 26-30 □ 31-40 □ 41-50 □ 51-60 □ >61

2. What gender are you?

- □ Male
- Female
- □ Non-binary
- □ Prefer not to answer
- 3. What is your job title?
  - Nurse Manager
  - □ Registered Nurse □ CNA (1 or 2)

4. How many years of experience do you have in this role?

Less than 1 year
1-2 years
3-5 years
6-10 years
11-20 years
more than 20 years

Employee Number: \_\_\_\_\_

# **Demographic Data**

5. How many years of experience do you have on the medical or surgical oncology unit?

147

- □ Less than 1 year
- □ 1-2 years
- □ 3-5 years
- □ 6-10 years
- □ 11-20 years
- □ more than 20 years
- 6. What is your primary language?
  - English
  - Spanish
  - □ Other: \_\_\_\_\_
- 7. How would you best describe yourself?
  - D White or Caucasian
  - Hispanic
  - D American Indian
  - □ Asian
  - Black or African American
  - □ Other: \_\_\_\_\_
- 8. Highest level of education competed?
  - □ No college
  - □ Some college
  - □ Associate degree
  - □ Bachelor's degree
  - □ Master's degree
  - Doctorate
  - □ Other:

# Appendix E – Liberty University IRB Approval

Date: 4-30-2023

IRB #: IRB-FY22-23-1447 Title: Impact of Fall Education to Nursing Staff on Oncology Patient Fall Rates Creation Date: 4-22-2023 End Date: Status: Approved Principal Investigator: Danielle Sloane Review Board: Research Ethics Office Sponsor:

# Study History

		Decision No Human Subjects
Submission Type Initial	Review Type Exempt	Research

# Key Study Contacts

Member Danielle Sloane	Role Principal Investigator	Contact
Member Danielle Sloane	Role Primary Contact	Contact
Member Rachel Joseph	Role Co-Principal Investigator	Contact

## **Appendix F – Organization IRB Approval**



#### **CLINICAL INQUIRY PROJECT – NOT RESEARCH DETERMINATION**

May 1, 2023

Dear Danielle Sloane:

On 5/1/2023, the Human Research Protection Program (HRPP) reviewed the following submission:

Title:	Impact of Fall Education to Nursing Staff on Oncology Patient Fall Rates
Project ID:	STUDY2023000304
Project Lead Name:	Danielle Sloane
Funding Source:	None

The HRPP determined that this project, as submitted, does not meet the definition of research as defined in the federal regulations, and does not require IRB review. This determination is based only upon the information submitted.

The project may proceed as described in the documents submitted for review and in line with requirements listed below and on the next page.

This determination does not exempt you from following hospital policies and procedures as they relate to conduct of this project.

As the project was deemed not to be research, any publication discussing the project may not refer to it as a research study, but rather refer to it as a Quality Improvement project, Evidence-Based Practice project, etc.

Should there be any questions, please contact the HRPP at:

### **Appendix G– Organization Letter of Support**





Dear Danni Sloane:

After careful review of your research proposal entitled, Impact of Fall Education to Nursing Staff on Patient Fall Rates, I have decided to grant you permission to: access our membership list and contact our staff and invite them to participate in your study, conduct your study, and receive and utilize patient falls data for your research study.

Check the following boxes, as applicable:

☑ I will provide our membership list to Danni Sloane, and Danni Sloane may use the list to contact our members to invite them to participate in her research study.

I grant permission for Danni Sloane to contact Registered Nurses and Certified Nursing Assistants to invite them to participate in her research study.

The requested data WILL NOT BE STRIPPED of identifying information before it is provided to the researcher.

We are requesting a copy of the results upon study completion and/or publication.

Sincerely,

Jennifer McDonnell Surgical Oncology Nurse Manger

## **Appendix H – CITI Training Certificate**



101 NE 3rd Avenue, Suite 320 Fort Lauderdale, FL 33301 US www.citiprogram.org

Verify at www.citiprogram.org/verify/?wb341b73f-a7f2-41a3-b59f-fd827cfa7b25-54659506

	Date of Fall:	Time of Fall:	Type of Fall (Anticipated VS Unanticipated):	Injuries Obtained:	Fall Education Done Pre- Fall:	Fall Education Done Post-Fall:	CPG Used:	Interventions Done Pre- Fall:	Interventions Added Post- Fall:	Learnings:
Patient #1										
Patient #2										
Patient #3										

Appendix I – Post-Fall Audit Tool



Appendix J – IOWA Model Tool

### Appendix K – Pre- and Post- Nursing Staff Test



Providence has a Fall Policy?
 □ True
 □ False

2. Providence has a Fall Clinical Practice Guideline (CPG)?

- 🗆 True
- □ False
- 3. There is a fall protocol in Lippincott?
  - 🗆 True
  - □ False

4. Fall education need to be documented every shift?

- 🗆 True
- □ False

5. When a patient is first admitted, how long does the RN have to assess and document the patient's fall risk from the time of admission?

- Within the first hour
- □ Within the first 4 hours
- $\hfill\square$  Within the first 12 hours
- $\square$  Within the first 24 hours

6. What are the fall risk and mobility tools that Providence uses? (check all that apply)

Quick Mobility Screen

- $\square$  Highest Level of Mobility Scale
- MORSE Fall Risk Scale
- Graf-Pif Fall Risk Scale
- $\square$  None of the above

7. When does the RN need to assess the patients fall risk scale? (select all that apply)

- $\square$  Upon assumption of care
- With any new medication that may contribute to change in fall status
- □ Once every 4 hours
- □ Once every 12 hours
- $\square$  Once every 24 hours
- $\Box$  After a procedure

Employee Number: \_\_\_\_\_

<u>Pre-Test</u> 8. When does the RN need to chart the fall prevention in the patient's Plan of Care? (select all that apply)

- $\square$  On admission
- $\square$  Upon assumption of care
- $\Box$  Once every 4 hours
- Once every 12 hoursOnce every 24 hours

9. Fall prevention care planning is an interdisciplinary process?

- 🗆 True
- □ False

10. Having a cancer diagnosis increases your risk of falling?

- □ True
  - □ False

11. Anesthesia may make patients have weaker gait than prior to surgery?

- True
  - □ False

12. Purposeful/intentional rounding helps decrease patient falls in the hospital?

- □ True
- □ False

13. After a patient falls in the hospital, when do you need to complete a post-fall assessment?

- You don't need to
- Immediately
- □ Within the first hour of the fall
- $\Box$  Within the first 4 hours of the fall
- $\square$  Before the end of your shift

14. After a patient falls in the hospital it is important that you fill out a fall debrief form before the end of you shift, but only if there was an injury to the patient?

15. After a patient falls in the hospital, per the policy, who do you need to communicate with? (select all that apply)

- The Nurse Manager or Manager on-call
- □ The hospital supervisor
- □ The attending LIP
- The patient's family or emergency contact
- The other team members on the unit working
- Document in the electronic health record

16. Some contributing factors that increase patient's fall risks are? (select all that apply)

- □ History of falls
- □ Age-related changes
- □ Fear of falling
- Impaired vision and hearing
- In Medication side effects
- chemotherapy-induced peripheral Neuropathy
- Anesthesia
- $\Box$  Use of assistive devices
- $\hfill\square$  None of the above

17. The primary cause of inpatient falls is decreased patient engagement in the fall prevention plan.

- □ True
- □ False

18. Patients who have developed a better rapport and trust with the nursing staff have decreased fall rates?

- □ True
- False

19. A scheduled toileting plan decreases the chance of a patient falling?

- 🗆 True
- False

20. Having the patient participate in active range-of-motion exercises decreases the risk of falling because? (select all that apply)

- It improves their flexibility
- It improves their coordination
- It doesn't decrease the patient's fall risk
- It keeps their blood flowing to their lower extremities

21. These medications are associated with

- higher fall rates? (select all that apply) □ Diuretics ('water pills')
  - □ Blood pressure medications
  - Diood pressure incureation
     Opioids (i.e., oxycodone,
  - morphine, dilaudid, etc.)
  - □ Anti-depressants
  - Some chemotherapies
  - Anesthesia

22. Patient falls affect reimbursement rates, increasing patients' length of stay, increasing undue patient harm, and increasing nursing staff's burnout?

- □ True
- False
- 23. A fall caused by a med side effect is? □ Unanticipated fall
  - □ Anticipated fall

24. The Joint Commission issued a sentinel event alert about preventing falls and fallrelated injuries in healthcare facilities because falls are a common safety problem in patients of any age or physical ability and can result in severe injury and death.

- $\Box$  True
- □ False

25. Hospital protocol is to start everyone with a bed alarm until they are proven not a fall risk.

26. Some chemotherapy medications cause peripheral neuropathy, increasing the patient's risk of falling.

 $\Box$  True  $\Box$  False

27. What percentage of patients with a cancer diagnosis fall in the hospital?

□ 10% □ 25% □ 50% □ 75%

28. Cancer patients more are 16-17% more risk for falling versus other patients?

- 🗆 True
- False

29. It is important to teach patients fall risk education for their own home upon discharge?

- □ True
- □ False

30. Studies have shown that increasing staffs knowledge about falls help decrease patient fall rates?

- 🗆 True
- False

31. If the patient has a history of falling it is important for you to? (select all that apply)

- Know what they were doing when they fell to better plan for fall interventions
- □ Predict a pattern of injury
- □ It is not important
- □ Let the Charge Nurse know

32. Fall precautions related to IV or IV access are? (select all that apply)

- □ Remove the line if no longer needed
- □ Have the patient use the IV pole
- □ Have the patient use a walker
- Utilize a toileting plan for patients with urinary urgency

33. One intervention that can help limit falls related to pain medications is offering toileting before administering pain medication.



Providence has a Fall Policy?
 □ True
 □ False

2. Providence has a Fall Clinical Practice Guideline (CPG)? □ True □ False

3. There is a fall protocol in Lippincott? □ True □ False

4. Fall education need to be documented every shift?

□ True □ False

5. When a patient is first admitted, how long does the RN have to assess and document the patient's fall risk from the time of admission?

- $\Box$  Within the first hour
- □ Within the first 4 hours
- $\square$  Within the first 12 hours
- $\hfill\square$  Within the first 24 hours

6. What are the fall risk and mobility tools that Providence uses? (check all that apply)

- Quick Mobility Screen
- □ Highest Level of Mobility Scale
- MORSE Fall Risk Scale
- Graf-Pif Fall Risk Scale
- $\square$  None of the above

7. When does the RN need to assess the patients fall risk scale? (select all that apply)

- $\square$  Upon assumption of care
- With any new medication that may contribute to change in fall status
- $\Box$  Once every 4 hours
- $\Box$  Once every 12 hours
- $\Box$  Once every 24 hours
- □ After a procedure

Employee Number:

<u>Post-Test</u> 8. When does the RN need to chart the fall prevention in the patient's Plan of Care? (select all that apply)

- On admission
- $\Box$  Upon assumption of care
- $\Box$  Once every 4 hours
- □ Once every 12 hours
- □ Once every 24 hours

9. Fall prevention care planning is an interdisciplinary process?

- 🗆 True
- False

10. Having a cancer diagnosis increases your risk of falling?

- 🗆 True
- □ False

11. Anesthesia may make patients have weaker gait than prior to surgery?

- □ True
- □ False

12. Purposeful/intentional rounding helps decrease patient falls in the hospital?

- 🗆 True
- False

13. After a patient falls in the hospital, when do you need to complete a post-fall assessment?

- $\square$  You don't need to
- □ Immediately
- $\Box$  Within the first hour of the fall
- $\square$  Within the first 4 hours of the fall
- □ Before the end of your shift

14. After a patient falls in the hospital it is important that you fill out a fall debrief form before the end of you shift, but only if there was an injury to the patient?

15. After a patient falls in the hospital, per the policy, who do you need to communicate with? (select all that apply)

- □ The Nurse Manager or Manager on-call
- The hospital supervisor
- The attending LIP
- The patient's family or emergency contact
- The other team members on the unit working
- Document in the electronic health record

16. Some contributing factors that increase patient's fall risks are? (select all that apply)

- □ History of falls
- □ Age-related changes
- □ Fear of falling
- Impaired vision and hearing
- □ Medication side effects
- chemotherapy-induced peripheral Neuropathy
- Anesthesia
- Use of assistive devices
- $\square$  None of the above

17. The primary cause of inpatient falls is decreased patient engagement in the fall prevention plan.

- True
- □ False

18. Patients who have developed a better rapport and trust with the nursing staff have decreased fall rates?

- 🗆 True
- □ False

19. A scheduled toileting plan decreases the chance of a patient falling?

- 🗆 True
- False

20. Having the patient participate in active range-of-motion exercises decreases the risk of falling because? (select all that apply)

- □ It improves their flexibility
  - □ It improves their coordination
  - It doesn't decrease the patient's fall risk
  - It keeps their blood flowing to their lower extremities

21. These medications are associated with

- higher fall rates? (select all that apply)
  - □ Diuretics ('water pills')
  - Blood pressure medications
  - Opioids (i.e., oxycodone,
  - morphine, dilaudid, etc.)
  - Anti-depressants
  - $\hfill\square$  Some chemotherapies
  - Anesthesia

22. Patient falls affect reimbursement rates, increasing patients' length of stay, increasing undue patient harm, and increasing nursing staff's burnout?

- □ True
  - □ False
- 23. A fall caused by a med side effect is?
   □ Unanticipated fall
   □ Anticipated fall

24. The Joint Commission issued a sentinel event alert about preventing falls and fallrelated injuries in healthcare facilities because falls are a common safety problem in patients of any age or physical ability and can result in severe injury and death.

> □ True □ False

25. Hospital protocol is to start everyone with a bed alarm until they are proven not a fall risk.

26. Some chemotherapy medications cause peripheral neuropathy, increasing the patient's risk of falling.

□ True

□ False

27. What percentage of patients with a cancer diagnosis fall in the hospital?

□ 10% □ 25% □ 50% □ 75%

28. Cancer patients more are 16-17% more risk for falling versus other patients?

- 🗆 True
- □ False

29. It is important to teach patients fall risk education for their own home upon discharge?

- 🗆 True
- False

30. Studies have shown that increasing staffs knowledge about falls help decrease patient fall rates?

- 🗆 True
- □ False

31. If the patient has a history of falling it is important for you to? (select all that apply)

- Know what they were doing when they fell to better plan for fall interventions
- Predict a pattern of injury
- It is not important
- $\hfill\square$  Let the Charge Nurse know

32. Fall precautions related to IV or IV access are? (select all that apply)

- □ Remove the line if no longer needed
- □ Have the patient use the IV pole
- □ Have the patient use a walker
- Utilize a toileting plan for patients with urinary urgency

33. One intervention that can help limit falls related to pain medications is offering toileting before administering pain medication.

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#### **Appendix L – Fall Education Evaluation**



1. What is your age:

□ 18-25 □ 26-30 □ 31-40 □ 41-50 □ 51-60 □ >61

- 2. What gender are you?
  - □ Male
  - □ Female
  - □ Non-binary
  - □ Prefer not to answer
- 3. What is your job title?
  □ Nurse Manager
  □ Registered Nurse
  □ CNA (1 or 2)

4. How many years of experience do you have in this role?

Less than 1 year
1-2 years
3-5 years
6-10 years
11-20 years
more than 20 years

Employee Number:

## <u>Demographic Data</u>

5. How many years of experience do you have on the medical or surgical oncology unit?

- $\Box$  Less than 1 year
- $\Box$  1-2 years
- □ 3-5 years
- □ 6-10 years
- □ 11-20 years
- $\square$  more than 20 years
- 6. What is your primary language?
  - 🗆 English
  - Spanish
  - □ Other:

7. How would you best describe yourself?

- □ White or Caucasian
- □ Hispanic
- American Indian
- 🗆 Asian
- Black or African American
- □ Other: \_\_\_\_\_
- 8. Highest level of education competed?
  - $\square$  No college
  - $\square$  Some college
  - □ Associate degree
  - □ Bachelor's degree
  - □ Master's degree
  - □ Doctorate
  - □ Other:

### Appendix M – Email to Participants

Dear Potential Participant,

As a doctoral candidate in the School of Nursing at Liberty University, I am conducting research as part of the requirements for a Doctor of Nursing Practice (DNP) degree. The purpose of my research is to evaluate the effects of fall education of RNs and CNAs on the medical and surgical oncology floor on oncology patient fall rates, and I am writing to invite you to join my study.

Participants must be a Registered Nurse or a Certified Nursing Assistant (1 or 2), who are employed on the medical or surgical oncology unit full-time, part-time, or per diem. Participants must be over the age of 18; be able to speak, read, and understand English. Participants will be asked to complete an anonymous demographics survey and pre-test of fall prevention knowledge, taking about ten minutes to complete. The researcher will then present fall education based on the organization's fall policy, fall Clinical Practice Guideline, Lippincott's fall protocol and other evidence-based fall prevention education. The participants will then take a post-test on their fall prevention knowledge and an education evaluation form. It should take approximately one hour to complete the procedures listed. Participation will be completely anonymous, and no personal, identifying information will be collected; employee numbers will be kept by the Nurse Manager of the unit for identification of the raffle winner only.

To participate, please complete the attached survey and return to me before the start of the inservice.

By coming to the in-service the participant is voluntarily consenting to the education session. If you choose to participate.

Participants will be entered into a raffle to receive a \$20 Starbucks gift card.

Sincerely,

Danni Sloane DNP Student

## Appendix N – Poster and Flyer Advertisement

# **Research Participants Needed**

## Impact of Fall Education to Nursing Staff on Oncology Patient Fall Rates

- Are you 18 years of age or older?
- Are you an Oncology RN, CNA1 or CNA2 ?
- Do you work on the Medical or Surgical Oncology Unit?
  - Do you speak and understand written English?

If you answered **yes** to each of the questions listed above, you may be eligible to participate in a research study.

The purpose of this study aims to evaluate the effects of fall education of RNs and CNAs on the medical and surgical oncology floor on oncology patient fall rates.

Participants will be asked to complete a pre-and post-knowledge test, and attend an educational inservice on the organization's fall policy, CPG, and other evidence-based fall interventions.

Benefits include increasing nursing knowledge around the organization's fall policy, CPG, and other evidence-based practice fall precautions for oncology patients; professional growth and development from participating in a research study; and adding to the research knowledge base of oncology patient falls.

#### Participants will be entered to win a \$20 Starbucks gift card for their participation.

If you would like to participate, contact the researcher at the phone number or email address provided below.

A consent document will be given to you at the time of the in-service.

Danni Sloane, a doctoral candidate in the School of Nursing at Liberty University, is conducting this study.

Please contact Danni Sloane at

for more information.

Liberty University IRB - 1971 University Blvd., Green Hall 2845, Lynchburg, VA 24515



# Appendix O – Demographic Data







Unit	Dates	Total Falls	Shift of Fall	Time of Fall	At Shift Chan ge	Location of Fall	Anticipated or Unanticipated	Injury Sustained	Fall Education Done Pre- Fall	Fall Education Done Post- Fall	Fall CPG Used Pre- Fall	Fall CPG Used Post- Fall
7N	3/19/23 - 4/18/23	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Medical Oncology	4/19/23 - 5/19/23	3	Day: 2 Night: 1	1130 2200 1830	0	Bathroo m: 2 By room cabinet: 1	Anticipated: 3 Unanticipated: 0	None: 2 Scrape: 1	Yes: 3 No: 0	Yes: 2 No: 1	Yes: 3 No: 0	Yes: 2 No: 1
<b>7</b> S	3/19/23 - 4/18/23	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Surgical Oncology	4/19/23 - 5/19/23	2	Day: 1 Night: 1	0503 2000	0	Bathroo m: 2	Anticipated: 2 Unanticipated: 0	None: 2	Yes: 1 No: 1	Yes: 2 No: 0	Yes: 2 No: 0	Yes: 2 No: 0
					Ed	ucation Inte	ervention Date: 5/	13/23 to 5/19	/23			
7N	5/20/23 - 6/19/23	3	Day: 2 Night: 1	0615 1607 1715	0	Bathroo m: 3	Anticipated: 2 Unanticipated: 1	None: 1 Abrasion/ Bruise: 2	Yes: 1 No: 2	Yes: 2 No: 1	Yes: 1 No: 2	Yes: 1 No: 2
Medical Oncology	6/20/23 - 7/20/23	2	Day: 1 Night: 1	1656 2240	n/a	Doorway : 1 Bathroo m: 1	Anticipated: 2 Unanticipated: 0	Skin tear: 1 None: 1	Yes: 0 No: 2	Yes: 0 No: 2	Yes: 2 No: 0	Yes: 2 No: 0
7S	5/20/23 - 6/19/23	1	Day: 0 Night: 1	1905	1	Bathroo m: 1	Anticipated: 1 Unanticipated: 0	None: 1	Yes: 1 No: 0	Yes: 0 No: 1	Yes: 1 No: 0	Yes: 1 No: 0
Surgical Oncology	6/20/23 - 7/20/23	1	Day: 0 Night: 0	1945	1	Bed: 1	Anticipated: 1 Unanticipated: 0	Skin tear: 1	Yes: 0 No: 1	Yes: 0 No: 1	Yes: 1 No: 0	Yes: 1 No: 0

Appendix P – Detailed Unit Fall Data

1

# Appendix Q – Statistical Analysis of Pre- and Post- Education

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		Difference
Pre-Test Score	Post-Test Score	in Socre
27	31	4
28	31	3
28	32	4
24	28	4
27	32	5
26	27	1
27	31	4
24	30	6
23	30	7
28	28	0
29	29	0
28	29	1
21	29	8
27	30	3
23	29	6
23	30	7
19	28	9
24	30	6
26	30	4
27	29	2
23	32	9
22	25	3
22	26	4
22	27	5
25	31	6
29	30	1
25	28	3

	Pre-Test Score	Post-Test Score
Mean	25.07407407	29.33333333
Variance	7.225071225	3.230769231
Observations	27	27
Pearson Correlation	0.41661127	
Hypothesized Mean Difference	0	
df	26	
t Stat	-8.727778924	
P(T<=t) one-tail	1.66373E-09	
t Critical one-tail	1.70561792	
P(T<=t) two-tail	3.33E-09	
t Critical two-tail	2.055529439	









# Appendix R – Statistical Analysis of Pre- and Post- Falls Data



	For	ALL Units	
Unit	Pre-Fall Rate	Post-Fall Rate	Difference in Score
7N	0.15	0.17	0.02
7S	0.08	0.09	0.01
Hypotheses:	u = distribution mean		
H0: Null Hypothesis	u = 0	The means of before and after v	vere the same
H1: Alternative			
Hypothesis	u ≠ 0	The means of before and after v	vere different
	TWO TAILED		
Significance:	a = 0.05		
Sample	2 Units before and after inter	rvention	
p-value:	0.204832765		
t-Test: Paired Two San	ple for Means		
	Pre-Test Score	Post-Test Score	
Mean	0.115	0.13	
Variance	0.00245	0.0032	
Observations	2	2	
Pearson Correlation	1		
Hypothesized Mean			
Difference	0		
df	1		
t Stat	-3		
P(T<=t) one-tail	0.102416382		
t Critical one-tail	6.313751515		
			High p value, above .05, we fa
P(T<=t) two-tail	0.204832765		to reject null hypothesis
t Critical two-tail	12.70620474		
Fail to reject the null I	hypothesis. We cannot determi	ne the means are siginificantly d	ifferent.
Therefore there is not	sufficent evidence to determin	e that the post test falls were di	fferent from the pre test falls.





## **Appendix S – Education Evaluation Data**









