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## Empowering Nurses Through Education to Reduce Patient Falls in an Acute Care Setting

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# Walden University

College of Nursing

This is to certify that the doctoral study by

Ericka Thompson

has been found to be complete and satisfactory in all respects,  
and that any and all revisions required by  
the review committee have been made.

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Walden University  
2024

Abstract

Empowering Nurses Through Education to Reduce Patient Falls in an Acute Care Setting

by

Ericka Thompson

MS, Walden University, 2012

BS, The College of the Bahamas, 2002

Project Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Doctor of Nursing Practice

Walden University

February 2024

## Abstract

Patient falls are a significant concern in acute health care institutions, leading to increased morbidity, mortality, and health care costs. Nurses play a vital role in patient safety, and empowering them with the necessary knowledge and skills is crucial to mitigate the risk of falls. The aim of this Doctor of Nursing Practice (DNP) project was to develop and implement an evidence-based staff education program that would improve nurses' knowledge of fall prevention strategies. To obtain evidence for the project, a comprehensive review of the literature on patient falls, educational interventions, and best practices and guidelines for fall prevention programs was undertaken. This information obtained informed the development of evidence-based educational training tailored to the acute care setting. Knowles's adult learning theory, which emphasizes the importance of self-directed learning, relevance, and practical application of knowledge, served as the guiding framework for the educational program. The self-directed online training module was implemented over 4 weeks for nursing staff ( $N = 26$ ) from acute care units. The effectiveness of the training was evaluated through an analysis of staff nurse participants' pre- and posttest scores on the Agency for Healthcare Research and Quality's Tool 2E: Fall Knowledge Test, which focuses on nurses' knowledge related to best practices in fall prevention strategies. The findings revealed an increase in posttest ( $M = 88.0$ ;  $SD = 12.5$ ) scores in comparison to pretest scores ( $M = 77.0$ ;  $SD = 22.7$ ). By empowering nurses through education, this DNP project has the potential to improve patient safety in acute care settings and contribute to the body of nursing knowledge by demonstrating the efficacy of evidence-based fall prevention strategies.

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## Dedication

I dedicate this project to the memory of my dearly departed loving mother, Mrs. Daphne Johnson. She supported and encouraged me throughout my life and especially during our dual battle with cancer to complete my doctoral studies despite all obstacles up to the time of her death on June 1<sup>st</sup>, 2021. Mom, you are not physically here with me to celebrate this great accomplishment. I thank you nonetheless as through your labor of love and continual prayers over the years, I have remained motivated and determined to successfully complete my doctoral requirements. This project signifies my resilience to achieve this goal in your honor.

## Acknowledgments

According to 1 Thessalonians 5:18, we are commanded to “give thanks in all circumstances.” I could not have undertaken this journey without the physical, financial, and emotional support of my family. I am deeply indebted to Nicholas Thompson (my spouse); Marvin and Rasjinique Smith and Brandon Evans (my children); Shantell, Tamika, and Tomiko Evans and Kennia and Kimberley Brown (my siblings); Jadyn Bethel and Nethaniel and Mason Smith (my grandchildren); Tametrius and Jazaria and all of my nieces and nephews; and Mavis Thompson and Cecilia Wallace and all of the Evans and Thompson Family. Words cannot express my gratitude for your support through every life challenge and your encouragement to pursue my dreams and complete my DNP degree. I am extremely grateful to my former project chair, Dr. Amelia Nicols, and my present project chair, Dr. Joan Hahn, and committee member, Dr. Diane Whitehead, who have guided and supported me throughout this process. This endeavor would not have been possible without your help. Finally, I would be remiss if I did not acknowledge and express my gratitude publicly to the almighty God who is my guide, source of strength, and my healer. Thank you, God, for you have kept me through life battles with multiple catastrophic comorbidities to fulfil this academic achievement, all for your glory God. I am here today at the finish line because of you, God.

## Table of Contents

List of Tables .....	iii
List of Figures .....	iv
Section 1: Nature of the Project .....	1
Problem Statement .....	2
Purpose Statement.....	3
Nature of the Doctoral Project .....	3
Significance.....	4
Summary .....	5
Section 2: Background and Context .....	6
Introduction.....	6
Concepts, Models, and Theories.....	7
Relevance to Nursing Practice .....	9
Local Background and Context .....	11
Role of the DNP Student.....	12
Role of the Project Team .....	12
Summary .....	13
Section 3: Collection and Analysis of Evidence.....	14
Introduction.....	14
Practice-Focused Questions .....	14
Sources of Evidence.....	15
Evidence Generated for the Doctoral Project .....	15



Analysis and Synthesis .....	16
Summary .....	16
Section 4: Findings and Recommendations .....	18
Introduction.....	18
Findings and Implications.....	18
Recommendations.....	24
Contribution of the Doctoral Project Team .....	25
Strengths and Limitations of the Project.....	25
Section 5: Dissemination Plan .....	28
Analysis of Self.....	28
Summary .....	32
References.....	34
Appendix A: Tool 2E: Fall Knowledge Test (Agency for Healthcare Research and Quality, 2013c) .....	38
Appendix B: PowerPoint Education on Falls .....	43

## List of Tables

Table 1. Participant Demographics ( $N = 26$ ) ..... 20

Table 2. Average Pre- and Posttest Scores for Years of Experience ( $N = 26$ ) ..... 21

## List of Figures

Figure 1. Average Pre- and Posttest Scores for Educational Level ..... 22

Figure 2. Average Pre- and Posttest Scores for Clinical Practice Setting ..... 23

## Section 1: Nature of the Project

Falls represent a pressing safety concern for patients as well as impose severe financial costs for individuals, organizations, and government payers. The World Health Organization (WHO, 2021) defined a fall as “an event which results in a person coming to rest inadvertently on the ground or floor or other lower level” (para. 1). In 2021, the WHO reported that falls were the second leading cause of accidental or unintentional deaths globally resulting in an estimated 684,000 deaths with over 80% occurring in low- and middle-income countries. According to the Centers for Disease Control and Prevention (CDC, n.d.), in 2015, the medical cost of nonfatal fall-related injuries in the older adult population each year accounted for more than 50 billion dollars with Medicare and Medicaid, respectively, bearing 29 billion and 9 billion dollars of this overall cost. The treatment of fatal fall-related injuries accounted for 754 million dollars in health care expenses. Patient falls can be fatal or nonfatal resulting in minor to serious injuries ranging from lacerations to fractures to traumatic brain injuries (CDC, n.d.). According to the Institute for Healthcare Improvement (IHI, n.d.), both intrinsic and extrinsic risk factors exist that may contribute to a patient’s fall. These factors include illness, altered mental status, medications, environmental factors, and the use of assistive devices.

Nurses constitute a large majority of the health care work force; therefore, they are strategically positioned to transform care at the bedside thus potentially reducing patient falls (IHI, n.d.). The Agency for Healthcare Research and Quality (AHRQ, 2013b) and WHO (2021) identified staff education and training as a key component of

fall prevention programs. In this project, I developed staff education to increase nurses' knowledge regarding best practices in fall prevention strategies. This project may positively effect social change by reducing patient falls, thus, improving patient outcomes and reducing fall-related costs to the institution. The problem, purpose, nature, and significance of the doctoral project will be presented in this section.

### **Problem Statement**

Although over one third of patient falls are preventable, from 700,000 to 1,000,000 people in hospitals throughout the United States sustain a fatal or nonfatal fall each year (AHRQ, 2023). Fall prevention continues to be a challenge at the project site. The risk management report indicated a 56% increase in patient falls from 2017 to 2018 with the highest reported incidence from the medical surgical unit. The number of patient falls in 2017 was 18, and in 2018 it increased to 28. This increase exceeded the National Database of Nursing Quality Indicators benchmark of 1.3 falls per 1,000 patient days at the time this project was completed. The risk management report attributed this increase to lack of compliance with fall prevention protocols and inadequate assessment. The unit consisted of 18 RNs with 39% at the advanced beginner level—that is, new graduates within their 1st year of clinical experience (see Benner, 1982).

Falls are a serious problem in U.S. hospitals. The National Database of Nursing Quality Indicators (n.d.) identified falls as a nursing sensitive indicator; therefore nursing has a major role to play in the prevention of patient falls (Staggs et al., 2015). Melin (2018) posited that education is an important component of an effective evidence-based falls prevention program. Staff education and the resulting compliance with fall

prevention have been found to reduce patient fall rates (Barker, 2014). In this educational project, I addressed the identified knowledge–practice gap.

### **Purpose Statement**

A nursing knowledge and practice gap existed related to knowledge of and adherence to evidence-based fall prevention protocols at the practice site. The purpose of this doctoral project was to develop and implement an evidence-based staff education program to improve nurses' knowledge of fall prevention strategies. Nursing leaders at the project site sought to create and promote a safe environment where errors are few, patient care outcomes are exceptional, and standards of performance are clear. I conducted this project to aid in providing staff with the knowledge and competence to reduce the incidence of patient falls, thus promoting a culture of safety. The project question I sought to answer was, Would an evidence-based fall prevention training improve nurses' knowledge of fall risk factors and prevention strategies in an acute care setting?

### **Nature of the Doctoral Project**

To develop the staff education program, I used current evidence in best practices in fall prevention strategies. The project was developed following the guidelines in the Walden University (2019) *Manual for Staff Education Doctor of Nursing Practice (DNP) Scholarly Project*. I used evidence-based tools such as the AHRQ Fall Prevention in Hospitals Training Program toolkit.

All participants in the education program completed a pretest using the AHRQ Tool 2E: Fall Knowledge Test (see Appendix A) to assess their baseline knowledge of

fall prevention strategies. Following the self-paced online education, I administered a posttest using the same test. I then compared the posttest results to the pretest results to evaluate the impact of the educational program on the staff knowledge of fall prevention strategies. The aim of the educational program was to bridge the knowledge practice gap by enhancing nurses' competence to reduce falls and improve patient care outcomes.

### **Significance**

The WHO (2021) identified falls as a major global public health problem that can be prevented through the promotion of fall prevention training of health care providers on evidence-based prevention strategies, the identification and removal of potential fall risk factors, and adherence to policies that create safer patient care environment. The project key stakeholders included the medical surgical unit nursing staff, patients, nursing administrators, and the management information system team. With greater knowledge, nursing staff might be empowered to apply evidence-based practices to reduce patient falls. Patients might benefit through the development of a safer patient care environment.

The nursing administrators at the project site played a vital role in the implementation of this staff educational project. A top priority of the nursing administrators was the need to enhance nursing staff knowledge of fall prevention strategies to potentially aid in reducing patient fall rates. I needed permission from the management information system team for the falls educational program to be added to the organization's educational platform. Nursing shortages, patient care demands, limited educational venues, and limited access to computer software and hardware in hospitals can potentially negatively affect the implementation of this educational project.

Leaders at the health care institution sought to reduce patient falls and injuries, contain cost, minimize liability due to malpractice and negligence, and reduce the negative impact of this preventable risk. The staff educational project may be effectively applied to other patient care units within the organization and other health care organizations to aid in enhancing nursing staff knowledge of patient fall prevention strategies and reducing patient fall rates. Improving staff knowledge and competency of evidence-based fall prevention strategies may achieve institutional goals and foster positive social change by reducing patient fall rates, promoting a safe patient care environment, and reducing health care expenditure related to the negative impact of patient falls.

### **Summary**

In the acute care setting, nursing staff goals when treating patients are geared towards managing patient problems to promote physical recovery and to keep the patient safe (AHRQ, 2013). Doing so requires health care professionals to be knowledgeable about successful evidence-based fall prevention strategies to foster a safe patient care environment to reduce patient falls. Falls can negatively affect a patient's quality of life and increase patient length of stay and health care expenditure (CDC, n.d.; WHO, 2021). Nursing leaders should be prepared to promote continuous staff education relevant to fall prevention strategies to empower their teams to improve patient care outcomes and reduce patient falls.



## Section 2: Background and Context

### **Introduction**

In the health care setting falls with injuries continue to be one of the top 10 reported sentinel events (The Joint Commission, 2015). On average, 30% to 35% of the patients who fall sustain an injury which inadvertently would prolong their length of stay and increase their cost of care (Health Research & Educational Trust, 2016). The Centers for Medicare & Medicaid Services (n.d.) identified patient falls as a hospital-acquired condition that is preventable. It requires hospitals to focus on improving patients' safety and reducing HAC through the integration of best practices programs within the organization. Fall prevention requires active engagement of multidisciplinary teams, utilizing clinical and theoretical expertise in an organizational culture that supports the implementation of best practices to foster systematic change to reduce patient falls (AHRQ, 2013). The purpose of this fall prevention educational project is to provide an evidence-based fall prevention education session to empower nurses to reduce falls in an acute care setting.

The risk manager at the project site identified a knowledge practice gap with the lack of adherence to evidence-based fall prevention protocols. This led me to develop the project focus question, which centered on whether an evidence-based fall prevention training would enhance nurses' knowledge of fall risk factors and prevention strategies in an acute care setting. In this section, I will describe the theory, model, and concepts used in the project; discuss the project's relevance to nursing practice; provide information on

the local background and context; and discuss my role as the DNP student and that of the project team.

### **Concepts, Models, and Theories**

Humanism theory emphasizes that adult learners are ultimately responsible for their own learning and should seek opportunities to continuously enhance their personal growth and development (Yang, 2004; Weber, 2014, as cited in Arghode et al., 2017). Adult learning theories should be an integral part of the development of professional development courses as the adult learner learns differently. Adult learners possess a unique set of core learning principles, individual and situational differences, and specific goals and expectations (Zepeda et al., 2014). Malcolm Knowles developed the adult learning model of andragogy to assist educators in better understanding the adult learning process and identify different learning methods to better facilitate adult learners (Malik, 2016). Knowles et al. (as cited by Malik, 2016) identified a set of core learning principles that are distinctive to adult learners:

- **Relevance:** Adults need to know why it is important that they learn what it is they need to know and how they will be expected to learn it.
- **Self-concept:** As an individual grows and matures their self-concept moves from dependency to self-direction.
- **Prior experience:** As an individual matures they acquire an increasing body of knowledge through experience developing a learning resource bank.
- **Readiness to learn:** Adults determine what they desire to learn because of their specific needs and interest.

- Orientation to learning: Adults are more problem centered and seek learning opportunities that they can apply to their everyday life or work environment.
- Motivation to learn: Adults require inspiring learning environments to remain motivated to learn; however, their greatest motivation comes from within themselves.

Knowles's andragogy adult learning model was one of the most suitable models for this staff education project which seeks to provide nurses with a self-paced e-learning fall prevention education program. In the acute care setting nurses are expected to be self-driven and motivated to continuously build upon their existing knowledge and experiences. This continuous acquisition of knowledge and clinical experiences can improve nurses' level of competence promoting better patient care outcomes (Hill, 2010). The integration of Malcolm Knowles's assumptions into this professional education program could be accomplished using the organization's learning management system (LMS). Nurses would be able to independently navigate through the educational module, within a familiar system and setting, at their own pace and selected time frame. This provides a cost effective and efficient method to promote staff engagement in fall prevention education (Johnson et al., 2015). The educational module would provide the nursing staff with a background of the problem so that they recognize why the fall prevention education module is vitally important and determine if they desire to complete the training. Nurses would be given the opportunity to complete a pretest and posttest to assess both their previous and subsequent knowledge levels. Integrating Knowles's adult learning model concepts in the development and

implementation of this fall prevention educational project would enable the nurses to improve their specific knowledge practice gap.

### **Relevance to Nursing Practice**

On examination of the following databases and websites, the supporting evidence was identified for this project. The databases and search engines included EBSCOhost, CINAHL, MEDLINE, PubMed, and Google Scholar. I also searched the WHO, CDC, AHRQ, Centers for Medicare & Medicaid Services, and IHI websites. The literature search for this project was limited to peer reviewed articles, dissertations, and data from reputable sources. Literature reviews from the last 5 years revealed limited items with the keywords and Boolean operators used: fall prevention education, nursing staff, acute care setting. I then expanded the search to include from 2010 to 2023 using the search key words; patient falls education, fall prevention, nursing staff and acute care setting which yield a few more scholarly literatures. Using the key words: educating nurses on fall prevention, enhancing nurses' knowledge through education, nurses' knowledge, fall prevention in patients yielded more publications. A publication significant to Benner theory of clinical competence levels which is greater than 10 years was included in this project. The literature to support this staff fall prevention education project is discussed next.

As the IHI (n.d.) argued, falls remain to be the top adverse event resulting in both non-fatal and fatal injuries to patients negatively impacting Medicare and Medicaid reimbursement for health care institutions. Globally WHO (2021) posited that falls are the second leading cause of unintentional death. CDC (n.d.) identified that falls prolong

patients' length of stay and increase health care expenditures. Each year over 700,000 to 1,000,000 patients sustained a fall in hospital (AHRQ, 2013). Over 800,000 people are hospitalized because of a fall-related injury (CDC, n.d.). WHO (2021) confirmed that 37.3 million falls are critical enough to require hospitalization. One third of falls are preventable through the implementation of a multidisciplinary team approach to manage intrinsic and extrinsic fall risk factors (AHRQ, 2013). In agreement, Dunton (2007) endorsed that nurses play a vital role in "keeping patients safe" through implementing key multidisciplinary strategies learned through theoretical knowledge and clinical experience (Hill, 2010). Keuseman and Miller (2020) supported this and advocated that a successful fall prevention program should include a multidisciplinary team approach focused on patient centered interventions targeted to specific modifiable fall risk factors inclusive of patient education. This will require nurses to be knowledgeable about fall prevention strategies.

This DNP project is essential to enhance nurses' knowledge relevant to fall prevention strategies. Khalifa (2019) agreed that patient and staff education relevant to fall risk factors and best practices interventions are one of five core strategies geared toward the prevention and reduction of patient falls. The WHO (2021) posited that effective fall prevention strategies must include policies to reduce fall risk factors, fall prevention training, patient and staff education and fall research. A meta-analysis research conducted by Morris et al. (2022) confirmed that patient and staff education promoted a reduction in hospital fall rates. This is further supported by IHI (n.d.), as nurses should be equipped with the necessary tools, standardized guidelines, theoretical

knowledge, and clinical competence to transform care at the bedside to reduce patient falls.

### **Local Background and Context**

The project setting is an acute care setting in a developing country. Preventing falls and fall-related injuries is one of the organization's top priorities. Falls is one of the top five risk issues as increasing incidences of patient falls continue to be a challenge. It is the organization's goal to promote a safe patient care environment that fully supports staff, patient, and family education as an integral part of reducing patient fall risk factors. In support of this goal, nursing leaders at the project site has implemented a fall prevention program adopted from the AHRQ Fall Prevention toolkit. This includes assessing all patients to determine their fall risk and implementing preventative measures to reduce their risk of falling and subsequently minimizing injury. This program requires the nurse to perform a fall risk assessment on all patients on admission, each shift, when a patient's condition changes or if a patient is transferred to a different unit. Additional strategies implemented include performing hourly rounding, provision of patient sitters for high fall risk patients and the implementation of specific interventions according to patients fall risk score level. It is evident that the organization fall prevention protocols follow evidence-based practices guidelines, despite this patient continue to fall. The organization's 2018 risk management report identified a lack of adherence to fall prevention protocols and inconsistencies with fall risk assessment as some contributing factors which require staff re-education.

### **Role of the DNP Student**

I am an RN with 26 years of clinical experience in various roles from a nurse at the bedside to a nurse leader and an academic. These roles afforded me the opportunity to navigate the health care system and identify practice gaps and the challenges the organizations faced to correct them at all clinical levels. As a DNP student the clinical practicum experience at the project site provided me an opportunity to better examine the problem of patient falls and identify evidence-based practice guidelines that can assist in bridging this knowledge practice gap. My role as DNP student is to prepare the fall prevention educational module, obtain consent to utilize the AHRQ fall knowledge test tool, and obtain consent from nursing administrators and the information technology team to integrate the fall prevention module into the hospital LMS. Through this system the pretest, educational module and posttest would be administered ensuring that no nursing staff names are utilized only Identification numbers. I would be responsible for compiling and analyzing the pre- and posttest results and presenting results and recommendations to the nursing administrative team, risk manager and staff who participated in the e-learning fall prevention training.

### **Role of the Project Team**

The educational project team consisted of the senior nursing leadership team, the risk manager, the information technology leader, and me as the DNP student. The risk manager role is to provide a summary of the current patient fall risk data so that additional supporting data and educational opportunities that may be required to be added to the educational program prior to its implementation can be identified. The role of the

senior nursing leadership team is to review the educational material to grant approval to conduct the education session, to liaison with the information technology department leader to facilitate placing the educational session online, and to support scheduling of the nurses to complete the educational session and to attend the meeting to present the results of the project. The information technology leader is responsible for placing the training on the organization LMS. As the project team leader, I was responsible for communicating with each team member, clearly identifying their roles, timelines, and the nature of the project from inception to completion. Support from the hospital leadership team for this educational project currently exists and all the project team members are a part of the fall prevention committee. This enables them to provide additional high-level internal data to further support and facilitate the development of the fall prevention education project which is an asset.

### **Summary**

The evidence currently indicates that falls continue to be a serious health care challenge that can be prevented through staff, patient and family education using a multidisciplinary team approach to reducing patient falls and the implementation of evidence based best practice guidelines (AHRQ, 2013). Nurses as adult learners play a vital role in reducing patient falls through the participation in continuous professional development training building on previous experiences and implementing new evidence-based concepts learnt to improve patient care outcomes.



## Section 3: Collection and Analysis of Evidence

### **Introduction**

According to Ramasamy (2019), there is a significant correlation between the provision of staff education related to fall prevention strategies and the enhancement of staff knowledge and clinical competence. This project focused on empowering nurses through education to reduce patient falls in an acute care setting (see Appendix B for the PowerPoint slides). A description of the practice-focused questions, source of evidence, and the analysis and synthesis methodology that were used for this project are discussed in this section.

### **Practice-Focused Questions**

Morris et al. (2022) identified a positive correlation to the provision of staff education and the reduction of patient fall rates. This educational project sought to examine the following practice-focused questions related to the purpose of this project, which was to develop and implement an evidence-based fall prevention staff education program that would empower nurses to reduce patient falls through knowledge acquisition.

Question 1: What is the nurse's current knowledge level of fall risk factors and best practice prevention strategies?

Question 2: Would an educational program make a significant difference in the nurses' knowledge of fall risk factors and best practice prevention strategies?

To examine these questions, I administered a pre- and posttest using the AHRQ Tool 2E: Fall Knowledge Test and a self-paced e-learning fall prevention educational module (AHRQ, n.d.-c).

### **Sources of Evidence**

The sources of evidence on which I relied to address this staff education project were obtained from a review of current literature in reference to best practices trends, and guidelines for fall prevention strategies and educational programs in acute care settings. The nursing administration team gave me the opportunity to review the educational module prior to implementation of the program. Nurses were asked to complete a pre- and posttest using the AHRQ Tool 2E: Fall Knowledge Test to address the knowledge gaps through the implementation of a staff fall education program.

### **Evidence Generated for the Doctoral Project**

#### ***Participants***

The participants were invited from the pool of nurses who work in the acute care settings at the project site. This group of nurses were selected as the inpatient units' fall rates were higher than the outpatient units, with a larger number of new graduate nurses in this setting.

#### ***Procedures***

The procedures included the pre- and posttest using the AHRQ Tool 2E: Fall Knowledge Test (see Appendix A) that was provided before and after the training. Given the current environment, the training module was presented in PowerPoint with a voiceover and presented on the learning module online system. Invited participants were

given one week to complete the training. The site provided the deidentified data to me following the training.

### ***Protections***

The project included protection in a number of ways. The protections include that deidentified data was provided by the partner site to protect confidentiality and anonymity. A site agreement form was obtained from the project leadership. Following receipt of Walden University approval, I shared the approved consent form from the Walden (2019) DNP manual with the partner site leadership to be placed in the online module.

### **Analysis and Synthesis**

This project was analyzed and synthesized using the pre- and posttest results of the AHRQ Tool 2E: Fall Knowledge Test. This test was given to the nurses before and after completion of a fall prevention self-paced e-learning educational module. The nurses were given a unique number and not their name on both the pre- and posttest to maintain anonymity and the ability to link and compare the exam results. The data collected from the pre- and posttests were evaluated using data analysis software and compared using a *t* test and descriptive statistics.

### **Summary**

Assessment of nursing staff knowledge relevant to fall prevention strategies is necessary to identify knowledge gaps and address them through education (AHRQ, 2013). The organization's fall prevention training needs can be better facilitated with knowledge of the current state of staff fall prevention knowledge levels. Many factors

can impact staff fall prevention knowledge levels such as differences in training programs, nursing turnover rates, level of clinical and theoretical competence (AHRQ, 2013). This project sought to firstly identify the nurses fall prevention knowledge (pretest). Then to implement a fall prevention education module, developed using best practice guidelines. Finally, to evaluate (posttest) the effectiveness of this training on enhancing the nurse's knowledge level relevant to fall prevention strategies in hopes of facilitating better patient care outcomes.

## Section 4: Findings and Recommendations

### **Introduction**

Fall prevention and staff education are key aspects of quality patient care. Patient falls can lead to serious injuries, extended hospital stay, and increased health care expenditures (CDC, n.d.; WHO, 2021). The provision of comprehensive education and training to health care workers can significantly reduce the risk of patient falls and promote a safer patient care environment. The primary goal of the project was to examine nurses' current knowledge of fall prevention strategies to determine if education could enhance their knowledge of best practices in fall prevention strategies. A fall prevention training module adapted from the AHRQ's Fall Prevention in Hospitals Training Program and Toolkit was provided to staff nurses through an LMS using the 2E Tool: Fall Knowledge Test as a pre- and posttest evaluation tool. In this section, the project findings, implications, recommendations, contributions of the doctoral project team, and the project strengths and limitations of the project will be discussed.

### **Findings and Implications**

A total of 26 RNs with varying years of experience (see Table 1) completed the fall prevention training and the 2E Tool: Fall Knowledge Test, which was administered pre- and posttest. The participants were predominantly female (88%) and from different ethnic backgrounds. The age range of the participants was between 18 and 64 years with educational experience from diploma to master's level. On average, the participants achieved a pretest score of 77% and a posttest score of 88%. Through descriptive statistical analysis the standard deviation was identified as 22.7% for the pretest scores

and 12.5% for the posttest scores. A median pretest score of 83% and a posttest score of 90% was obtained. The pretest ranged from 8% to 100%, while the posttest scores ranged from 42% to 100%. The score that appears most frequently in the pretests was 81% and 96% in the posttest. Further analysis of the data revealed that nurses with 1 to 2 years of experience obtained the highest average scores in both the pretest (90%) and posttest (95%). This may likely be attributed to the nurse's recent exposure to fall prevention strategies as recent university graduates and new hires. In general, nurses' knowledge increases with experience, as experienced nurses often possess a greater depth of knowledge and expertise in their field (Pueyo-Garrigues et al., 2022).

**Table 1***Participant Demographics (N = 26)*

Years of experience	<i>n</i>	%
< 1	0	0
1–2	2	8
3–5	4	15
6–10	5	19
10–20	8	31
20 or more	7	27
Age		
18–24	1	4
25–34	11	42
35–44	6	23
45–54	2	8
55–64	6	23
Gender		
Female	23	88
Male	3	12
Race/ethnicity		
African	5	19
Asian	1	4
Black or African American	15	58
Filipino	3	12
White	1	4
Prefer not to answer	1	4
Educational level		
Associate's degree	3	12
Diploma	1	4
Bachelor's degree	19	73
Master's degree	3	12
Practice setting		
Critical care unit	6	23
Emergency room	8	31
Medical/surgical unit	7	27
Obstetrics and gynecology unit	2	8
Operating theatre	3	12

Based on the project findings however as shown in Table 2, nurses with 6 to 10 years of experience had the lowest average score in the pretest (69%), while those with 10 to 24 years of experience had the lowest average score in the posttest (84%). Nurses through years of practice and continued learning, are expected to accumulate a wealth of knowledge and skills that can improve patient care outcomes. When comparing the different levels of nursing education, associate-prepared nurses displayed the highest overall average scores in both the pretest (83%) and posttest (94%). Master's level nurses had the lowest pretest average score (68%), and diploma nurses had the lowest posttest average score (84%) this information is provided in Figure 1.

**Table 2**

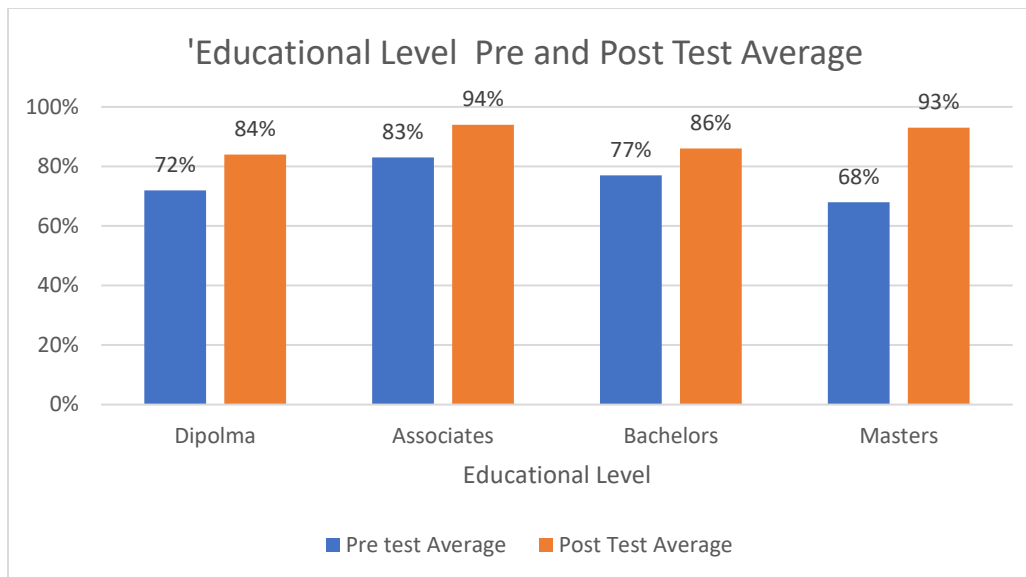
*Average Pre- and Posttest Scores for Years of Experience (N = 26)*

Years of experience	<i>n</i>	Pretest %	Posttest %
1–2	2	90	95
3–5	4	77	85
6–10	5	69	85
10–20	8	75	84
20 or more	7	80	94



**Figure 1**

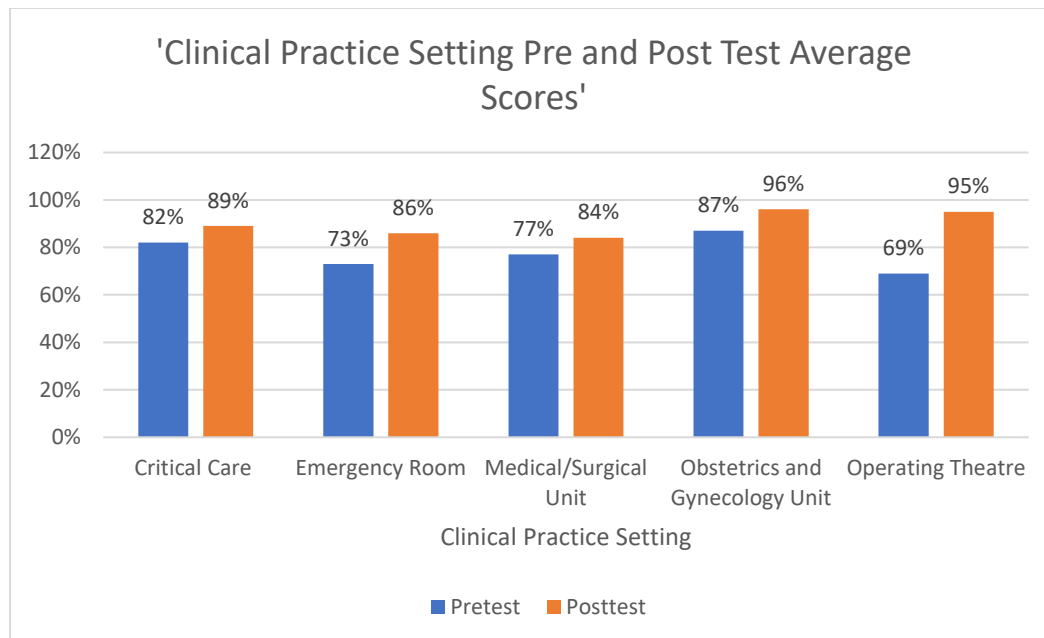
*Average Pre- and Posttest Scores for Educational Level*



In terms of specialization, operating room nurses scored the lowest average pretest score (69%), while medical surgical unit nurses scored the lowest average posttest score (84%). Obstetrics and gynecology nurses achieved the highest average scores in both the pretest (87%) and posttest (96%). This information is displayed in Figure 2. The high scores obtained by obstetrics and gynecology nurses are likely to support the units fall free zone performance improvement goal.

**Figure 2**

*Average Pre- and Posttest Scores for Clinical Practice Setting*



Overall, a comparison of the pre- and posttest scores revealed 69.2% of the nurse's test scores increased following the fall prevention training with 15.4% of the test scores remaining unchanged and favorably above 80%. In the pretest only 35% (9) of the nurses received a score lower than 80% compared to only 11.5% (3) who received a score lower than 80% in the posttest. The *t* test value was -3.53, indicating a significant difference between the pretest and posttest means. The observed difference is 3.53 times the standard error away from the hypothesized mean difference of 0. The *p* value, which was 0.0016, suggests that the observed difference is unlikely to occur by chance. As the *p* value is smaller than a significance level of 0.05 there is strong evidence to reject the null hypothesis in favor of the alternative hypothesis. The results provided significant evidence to suggest that there is a difference between the pretest and posttest means.

This evidence supports that this project has the potential to facilitate a reduction in the fall prevention knowledge gap of nurses, indirectly fostering positive social change improving patient care outcome at the bedside (IHI, n.d.).

### **Recommendations**

Fall prevention requires a multidisciplinary team approach that involves a collaborative effort from various health care disciplines to assess, plan and implement fall prevention strategies. Through this staff education project several recommendations were identified to support improving nurses' knowledge acquisition and retention related to best practices in fall prevention education. To achieve this goal will require the nursing leaders at the organization to implement the following intervention denoted by the acronym "SOS":

1. **S:** System wide standardized fall prevention program inclusive of education and training of both clinical and non-clinical staff promoting a standardized multidisciplinary team approach to fall prevention.
2. **O:** Ongoing fall prevention education and training on hire, annually and as required when fall prevention policies and guidelines are revised or fall rates increase.
3. **S:** Staying up to date with current evidence-based fall prevention practice guidelines and the revision of fall prevention policies and training modules to address these new standards.

### **Contribution of the Doctoral Project Team**

The project team provided effective support and collaboration according to their specific roles and responsibilities. The nursing leadership team reviewed the training material in a timely manner and efficiently facilitated uploading the training into the LMS, and its dissemination to each inpatient unit. This team of leaders encouraged nurses in their respective departments to complete the training in their free time and during low patient census. The nursing leadership team plans to add this fall prevention training to their clinical staff orientation program.

### **Strengths and Limitations of the Project**

Several project strengths were identified. Firstly, this staff education project provided up to date education on fall prevention strategies, enhancing staff knowledge and ability to effectively identify and address fall risks. Secondly, the training facilitates a cohesive and coordinated approach to fall prevention through the provision of standardized practice guidelines to ensure that every participant was educated on the same evidence-based protocols and processes in preventing falls. Another strength is that the project raised awareness among the participants about the importance of fall prevention. This encourages the development of a proactive mindset towards fall prevention which can lead to more vigilant staff members who actively seek out potential fall risk and take appropriate preventative measures. Next, this project helped to improve effective communication between staff members and their patients about fall risk and prevention strategies. This improved communication fosters a collaborative approach to fall prevention and ensures that everyone is on the same page regarding patient safety.

Lastly, the most significant strength of this fall prevention staff education project is the potential for improved patient outcomes. By enhancing staff knowledge and awareness, standardizing practices, and promoting effective communication nurses are better equipped to prevent falls or mitigate their impact. This can result in reduced fall rates, less severe injuries, and improved overall patient safety and well-being which fosters positive social change.

There were several limitations identified in this staff educational project associated with the LMS settings, project timing, access to project site current fall data, and project generalization. Initially three duplicate entries in the pretest and two in the posttest were identified. To overcome a potential limitation caused by errors or inconsistencies in the data, which could have impacted the quality of the results, the initial attempt for the duplicate entries was included in the project findings and the second attempt was excluded. One participant was identified as having completed the posttest only as no correlating number was found in the pretest data. This participant response was eliminated from the project results. Overall, 41 participants completed the pretest, two of these participants were nursing students so their responses were excluded. Further review of the data revealed that only 26 out of the remaining 39 participants completed both the pre- and posttest, yielding a completion compliance rate of 67%. As a result, an additional 13 (33%) of the participants' responses were excluded. This brought the total number of participants to 26 for the project final analysis grouping. Participants were able to bypass the training module and proceed directly to the posttest with no system hard stops which was evident in 15.4% of the participants pre- and

posttest scores being unchanged and 15.4% of the participants receiving higher pretest than posttest scores. The scores were all favorable, however the LMS time stamp reveals that the participant completed the training in 5 to 7 min or less. Another limitation may have been the careless responding by the participants (Ward & Meade, 2023).

Participants may have not read through the training module and proceeded directly to the posttest in this short time frame. It is evident that the use of LMS system hard stops must be implemented with future staff education and training to decrease these limitations.

The project implementation timing also posed a challenge in motivating nurses at the project sight to volunteer their personal time outside of the organization to complete the training modules. Some of the competing priority forces identified were peak fluctuations in patient census, festive season vacation breaks, completing staff mandatory educational training requirements, and completing staff evaluations. Improving collaboration and communication with the project sight education team to implement future education and training projects cohesively with monthly competencies and training may improve overall staff completion rates and minimize opposing forces. As a result of unforeseen circumstances, the access to the project site current risk reports and current fall rates for 2023 was not readily available at the time of this project final analysis. The staff education project can be applied to this organization with the inclusion of content applicable for non-clinical staff and not generalized to another institution because of the low number of participants.

## Section 5: Dissemination Plan

Disseminating this fall prevention project findings is pivotal for knowledge sharing, raising awareness, improving quality of care, informing policy development, fostering collaboration, and promoting continuous process improvement in fall prevention practice. Several different disseminating methods will be used to disseminate the findings of the project. As a part of the DNP project requirements, this project will initially be dispersed through ProQuest Dissertations & Theses Global database. A comprehensive report outlining the project problem, training goals, methods, findings, conclusions, and recommendations will be created and shared with the nursing leadership team. Subsequently, a PowerPoint presentation will be created summarizing the project to conduct a focus group presentation with the nursing leadership team. Then, a simplified handout or leaflet presentation will be created highlighting the project key objectives, methods, outcomes, and recommendations for distribution to the nursing staff via email, the organizations intranet portal, and physical copies for distribution. Finally, a poster presentation will be created for dissemination once accepted at local nursing conferences, workshops, and seminars. Additionally, the poster presentation will be adapted to be distributed to external stakeholders, such as health care professionals, health care policy makers, and other key stakeholders.

### **Analysis of Self**

Self-reflection as a health care provider is an important aspect of professional development. It involves evaluating one's own knowledge, skills, and attitudes in the provision and promotion of quality safe patient care outcomes. In this section, I will

share my analysis of myself as a nurse, nurse educator, nurse manager, DNP scholar and project manager as it relates to the responsibilities each role has in the promotion of fall prevention education. As an RN, I have an important role to play in fall prevention education. I should have a thorough understanding of the factors that contribute to falls in health care settings, such as medications side effects, environmental hazards, and underlying health conditions. Additionally, I should be well versed in evidence-based fall prevention strategies, such as conducting fall risk assessments, implementing mobility programs, and educating patients and their families on fall prevention measures. Completing the DNP project research over the years gave me the opportunity to stay up to date with the most current evidence-based fall prevention strategies.

As a nurse educator, I can utilize my skills to develop effective fall prevention education materials and programs. I should be able to assess the learning needs of my target audience, whether it be patients, families, or fellow health care professionals, and tailor educational interventions accordingly. I should also be proficient in utilizing various teaching methodologies and tools, such as interactive workshops, multimedia presentations, written material, and blended learning platforms to effectively deliver fall prevention education. This staff education project gave me an opportunity to accomplish this goal.

As a nurse manager, I play a vital role in ensuring that fall prevention protocols are implemented and followed within the health care facility. I should be proactive in evaluating the current practices and policies related to fall prevention and make necessary improvements or updates. Additionally, I should facilitate ongoing training and



education for the staff to ensure that they are equipped with the knowledge and skills necessary to prevent falls. I should also promote a culture of safety within the organization, emphasizing the importance of fall prevention to all members of the health care team.

As a DNP scholar, I have an opportunity to contribute to the advancement of fall prevention knowledge and practice through research and scholarly activities. I can use research studies in the development of evidence-based projects to explore new strategies or interventions for fall prevention. I can also critically analyze existing literature and evidence to identify gaps in knowledge and propose innovative approaches to address them. Additionally, I can disseminate my findings through publications and presentations to contribute to the broader health care community's understanding and application of fall prevention strategies.

As a project manager, in this fall prevention staff education project, I was able to showcase my project management skills, such as leadership, effective communication, planning, organizing, engaging with key stakeholders, mitigating risks, tracking progress, and evaluating outcomes. To guide the project team towards success I provided clear goals and direction. Communication was crucial to ensure understanding and cooperation with the project team. Planning and organizing were essential to complete tasks on target. Engaging with key stakeholders, mitigating risks, and tracking progress ensured the project success. Evaluating outcomes allowed for evidence-based recommendations for process improvement.

Overall, as a nurse, nurse educator, nurse manager, DNP scholar and project manager, I can leverage my skills and expertise ascertained over the years to contribute significantly to other fall prevention education projects. By staying up to date with current evidence and best practices, utilizing effective teaching strategies, implementing, and evaluating fall prevention protocols, and conducting research, I can make a positive impact in reducing falls and improving patient care outcomes facilitating positive social change in acute health care settings.

During my scholarly journey, I was faced with life threatening health challenges. I realized even more now, the significance of patient safety and the need for quality care. It made me appreciate the value of education and how it can positively impact and transform lives at the bedside. This project on fall prevention education has become even more meaningful to me now. Although the delay caused by my health issues was frustrating at times, it turned out to be a blessing in disguise. It provided me with the opportunity to gain a deeper understanding of the importance of scholarly work. I had the chance to reflect on my initial reasons for pursuing this project and to further develop my knowledge and skills in the field of patient safety and education. By completing this staff education project, I hope to contribute to the improvement of patient care and safety within health care organizations globally. I believe that with the right education and training, health care professionals can effectively prevent falls and provide high-quality care to their patients. Looking back, I am grateful for the lessons I have learned during this journey. My dedication to patient safety and the provision of quality care has been

reinforced, and I am more determined than ever to make a positive impact in the lives of those I serve.

### **Summary**

In conclusion, the implementation of staff fall prevention education in an acute health care setting is imperative for ensuring the safety and well-being of both patients and health care providers. The findings of this DNP project demonstrate the significance of providing comprehensive education to health care staff, enabling them to identify fall risk factors, employ preventative measures, and respond effectively in the event of a fall. This project successfully emphasized education as a key strategy for reducing fall rates and improving patient care outcomes. The project results highlighted the importance of ongoing staff education and training, as maintaining an updated understanding of fall prevention strategies and evidence-based practices is crucial in mitigating the risk associated with patient falls. By equipping health care providers with the necessary knowledge and skills, health care organizations can create a culture of safety that prioritizes patient protection. The project recommendations call for interdisciplinary collaboration and teamwork of various health care professionals to foster a holistic approach to the implementation of fall prevention strategies. This interprofessional collaboration enhances communication, ensures a comprehensive assessment of patients' falls risk, and facilitates the development of individualized patient interventions. Overall, this DNP project demonstrated the significance of staff education promoting patient safety and preventing falls in an acute care setting. The knowledge gained from this project can be utilized by health care organizations to develop and implement

comprehensive fall prevention education programs, ultimately improving patient care outcomes and promoting a safe and effective health care environment.

## References

- Agency for Healthcare Research and Quality. (2013a). *Overview*.  
<https://www.ahrq.gov/patient-safety/settings/hospital/fall-prevention/toolkit/overview.html>
- Agency for Healthcare Research and Quality. (2013b). *Preventing falls in hospitals*.  
<https://www.ahrq.gov/patient-safety/settings/hospital/fall-prevention/toolkit/index.html>
- Agency for Healthcare Research and Quality. (2013c). *Tool 2E: Fall Knowledge Test*.  
<https://www.ahrq.gov/patient-safety/settings/hospital/fall-prevention/toolkit/fall-knowledge-test.html>
- Arghode, V., Brieger, E., & McLean, G. N. (2017). Adult learning theories: Implications for online instruction. *European Journal of Training and Development*, 41(7), 593–609. <https://doi.org/10.1108/ejtd-02-2017-0014>
- Barker, W. (2014). Assessment and prevention of falls in older people. *Nursing Older People*, 26(6), 18–24. <https://doi.org/10.7748/nop.26.6.18.e586>
- Benner, P. (1982). From novice to expert. *American Journal of Nursing*, 82(3), 402–407.  
<https://doi.org/10.2307/3462928>
- Centers for Disease Control and Prevention. (n.d.). *Facts about falls*. U.S. Department of Health and Human Services. <https://www.cdc.gov/falls/facts.html>
- Centers for Medicare & Medicaid Services. (n.d.). *Hospital acquired conditions*. U.S. Department of Health and Human Services.

<https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/HAC/Hospital-Acquired-Conditions>

Health Research & Educational Trust. (2016, October). *Preventing patient falls: A systematic approach from the Joint Commission Center for Transforming Healthcare project*. <https://www.aha.org/system/files/2018-01/preventing-patient-falls.pdf>

Hill, K. K. (2010). Improving quality and patient safety by retaining nursing expertise. *Online Journal of Issues in Nursing, 15*(3).  
<https://doi.org/10.3912/ojin.vol15no03ppt03>

Institute for Healthcare Improvement. (n.d.-a). *Falls prevention*.  
<https://www.ihl.org/Topics/Falls/Pages/default.aspx>

Institute for Healthcare Improvement. (n.d.-b). *Transforming care at the bedside how-to guide: Reducing patient injuries from falls*.  
<https://www.ihl.org/resources/Pages/Tools/TCABHowToGuideReducingPatientInjuriesfromFalls.aspx>

Johnson, M., Kelly, L. W., Siric, K., Tran, D. T., & Overs, B. (2015). Improving falls risk screening and prevention using an e-learning approach. *Journal of Nursing Management, 23*(7), 910–919. <https://doi.org/10.1111/jonm.12234>

The Joint Commission. (2015, September 28). *Preventing falls and fall related injuries in health care facilities* (Sentinel Event Alert Issue No. 55).  
<https://www.jointcommission.org/resources/sentinel-event/sentinel-event-alert->

[newsletters/sentinel-event-alert-55-preventing-falls-and-fall-related-injuries-in-health-care-facilities/](#)

Keuseman, R., & Miller, D. R. (2020). A hospitalist's role in preventing patient falls.

*Hospital Practice*, 48(Suppl. 1), 63–67.

<https://doi.org/10.1080/21548331.2020.1724473>

Khalifa, M. (2019). Improving patient safety by reducing falls in hospitals among the

elderly: A review of successful strategies. *Studies in Health Technology and*

*Informatics*, 262, 340–343. <https://doi.org/10.3233/shti190088>

Malik, M. (2016). Assessment of a professional development program on adult learning

theory. *Portal - Libraries and the Academy*, 16(1), 47–70.

<https://doi.org/10.1353/pla.2016.0007>

Morris, M. E., Webster, K. E., Jones, C., Hill, A., Haines, T., McPhail, S. M., Kiegaldie,

D., Slade, S. C., Jazayeri, D., Heng, H., Shorr, R. I., Carey, L. M., Barker, A., &

Cameron, I. D. (2022). Interventions to reduce falls in hospitals: A systematic review and meta-analysis. *Age and Ageing*, 51(5), Article afac077.

<https://doi.org/10.1093/ageing/afac077>

Pueyo-Garrigues, M., Pardavila-Belio, M. I., Canga-Armayor, A., Esandi, N., Alfaro-

Díaz, C., & Canga-Armayor, N. (2022). Nurses' knowledge, skills and personal

attributes for providing competent health education practice, and its influencing

factors: A cross-sectional study. *Nurse Education in Practice*, 58, 103277.

Ramasamy, K. (2019). *Educational training on falls intervention for elderly patients in*

*acute care settings* (Publication No. 13899282). [Doctoral dissertation, Walden

University]. ProQuest Dissertations & Theses Global.

<https://www.proquest.com/dissertations-theses/educational-training-on-falls-intervention/docview/2244709920/se-2>

Staggs, V. S., Davidson, J., Dunton, N., & Crosser, B. (2015). Challenges in Defining and Categorizing Falls on Diverse Unit Types. *Journal of Nursing Care Quality*, 30(2), 106–112. <https://doi.org/10.1097/ncq.0000000000000085>

Walden University. (2019, May). *Manual for staff education: Doctor of Nursing Practice (DNP) Scholarly Project*.

[https://academicguides.waldenu.edu/ld.php?content\\_id=63973989](https://academicguides.waldenu.edu/ld.php?content_id=63973989)Ward, M. K., &

Meade, A. W. (2023). Dealing with careless responding in survey data:

Prevention, identification, and recommended best practices. *Annual Review of Psychology*, 74(1), 577-596.

World Health Organization. (2021, April 26). *Falls* [Fact sheet].

<https://www.who.int/news-room/fact-sheets/detail/falls>

Zepeda, S. J., Parylo, O., & Bengtson, E. (2014). Analyzing principal professional development practices through the lens of adult learning theory. *Professional Development in Education*, 40(2), 295–315.

<https://doi.org/10.1080/19415257.2013.821667>



Appendix A: Tool 2E: Fall Knowledge Test (Agency for Healthcare Research and  
Quality, 2013c)

**Fall Knowledge Test**

Each question may have more than one option as the correct answer.

Please circle the letters that correspond to the correct answers.

1. Which of the following statements is correct?
  - a. Falls have multifactorial etiology, so fall prevention programs should comprise multifaceted interventions.
  - b. Regular review of medication can help to prevent patient falls.
  - c. The risk of falling will be lessened when a patient's toileting needs are met.
  - d. The use of antipsychotic medications is associated with an increased risk of falls in older adults.
2. A multifaceted intervention program should include:
  - a. Individually-tailored fall prevention strategies
  - b. Education to patient/family and health care workers
  - c. Environmental safety
  - d. Safe patient handling
3. Risk factors for falls in the acute hospital include all of the following except:
  - a. Dizziness/vertigo
  - b. Previous fall history
  - c. Antibiotic usage
  - d. Impaired mobility from stroke disease

4. Which of the following statements is true?
  - a. The cause of a fall is often an interaction between patient's risk, the environment, and patient risk behavior.
  - b. Increase in hazardous environments increases the risk of falls.
  - c. The use of a patient identifier (e.g., identification bracelet) helps to highlight to staff those patients at risk for falls.
  - d. A fall risk assessment should include review of history of falls, mobility problems, medications, mental status, continence, and other patient risks.
5. Patients with impaired mobility should be:
  - a. Confined to bed
  - b. Encouraged to mobilize with assistance
  - c. Assisted with transfers
  - d. Referred for exercise program or prescription of walking aids as appropriate
6. The management of the acutely confused patient should include all of the following except:
  - a. Moving patients away from the nursing station
  - b. Involving family members to sit with the patient
  - c. Orienting patients to the hospital environment
  - d. Reinforcing activity limits to patients and their families
7. Which of the following statements is false?
  - a. Fall prevention efforts are solely the nurses' responsibility.
  - b. A patient who is taking four or more oral medications is at risk for falling.

- c. A patient who is taking psychotropic medication is at higher risk for falling.
  - d. Testing or treatment for osteoporosis should be considered in patients who are at high risk for falls and fractures.
8. In hospital settings, intervention programs should include:
- a. Staff education on fall precautions
  - b. Provision and maintenance of mobility aids
  - c. Postfall analysis and problem-solving strategy
  - d. Bed alarms for all patients, regardless of risk
9. When assessing patients, which of the following statements is false?
- a. All patients should be assessed for fall risk factors at admission, at a change in status, after a fall, and at regular intervals.
  - b. Medication review should be included in the assessment.
  - c. All patients should have their activities of daily living and mobility assessed.
  - d. Environmental assessment is not important in the hospital as it is all standardized.
10. Risk factors for falls include:
- a. Parkinson's disease
  - b. Incontinence
  - c. Previous history of falls
  - d. Delirium

11. Exercise programs for ambulatory older adults should:
  - a. Be very aggressive
  - b. Be unsupervised
  - c. Be ongoing
  - d. Include individualized strength and balance training
  
12. Which of the following statements on education in fall prevention is false?
  - a. Education programs should target primarily health care providers, patients, and caregivers.
  - b. Education programs for staff should include the importance of fall prevention, risk factors for falls, strategies to reduce falls, and transfer techniques.
  - c. Instruction on safe mobility, with emphasis on high-risk patients, should be provided to both patients and families.
  - d. Education should only be given at the start of the fall prevention program.
  
13. Which of the following is recommended to improve patient safety?
  - a. Locking wheeled furniture when it is stationary.
  - b. Having nonslip flooring.
  - c. Placing frequently used items (including call bell, telephone, and remote control) within reach of the patient
  - d. Rounding hourly to address patient needs

## Answer Key:

1. A, B, C, D
2. A, B, C, D
3. C
4. A, B, C, D
5. B, C, D
6. A
7. A
8. A, B, C
9. D
10. A, B, C, D
11. C, D
12. D
13. A, B, C, D

## Appendix B: PowerPoint Education on Falls



Hospital Fall Prevention Strategies



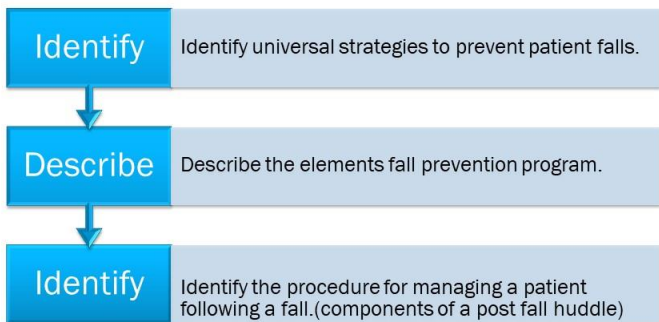
**FALL PREVENTION**  
**MRS. ERICKA THOMPSON**  
**DNP STUDENT**  
**WALDEN UNIVERSITY**

**OBJECTIVES**

Define	Define Fall
Differentiate	Differentiate between intrinsic and extrinsic Fall risk factors
Describe	Describe the four different types of falls
Identify	Identify five (5) different levels of injury that may result from a fall according to the National Database of Nursing Quality Indicators (NDNQI).



## OBJECTIVES



## DEFINITIONS

- A Fall is defined as “an unplanned descent to the floor with or without injury to the patient” (AHQR, 2013).
  - this includes falls that are result of physiologic as well as environmental reasons.
  - Falls include both assisted falls (when a staff member attempts to minimize impact of the fall) and unassisted falls.
  - A fall that is reported to have been assisted by a family member or visitor counts as a fall.” (NDNQI)



## FALL RISK FACTORS

Fall Risk factors are Classified as:

1. **Intrinsic Risk Factors**
  - originating from within the individual
  - Includes acute or chronic disease, medications use and normal changes as a result of the aging process.
2. **Extrinsic Factors**
  - originating outside of an individual
  - Includes physical environment, assistive devices and footwear.



## INTRINSIC FALL RISK FACTORS



### Changes in mental status

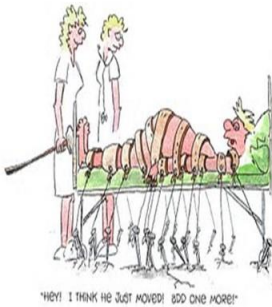
- Alzheimer's and Dementia
- Behavioral changes
- Poor reasoning and perception

### Age related changes in:

- Balance and gait
- Decreased muscle tone & reflexes
- Orthostatic hypotension



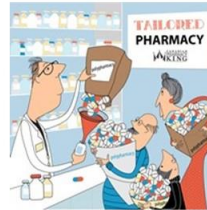
## INTRINSIC FALL RISK FACTORS



- Age related changes in:
  - Vision
    - Decline in visual acuity
    - Color sensitivity and depth perception
  - Psychological Fear of falling
    - Resulting in loss of independence
    - Decrease in activities

## INTRINSIC FALL RISK FACTORS

- Use of specific Medications
  - Sedatives/hypnotic
  - Antidepressants
  - Laxatives
  - Antihypertensive
  - Diuretics
  - Poly pharmacy- Multiple medications drug interactions and side effects.



## INTRINSIC FALL RISK FACTORS

- Acute and Chronic Medical Disorders
- Acute illness
  - Infection
  - Aggravated into chronic illness
- Cardiovascular
  - Heart failure
  - Edema
  - Lightheadedness/Dizziness
  - Blood pressure changes



## INTRINSIC FALL RISK FACTORS

- Musculoskeletal disorders resulting in:
  - Muscle weakness
  - Decrease physical activity
  - Such as Arthritis & Foot disorders
- Gastrointestinal disorders resulting in:
  - Nausea and vomiting
  - Incontinence
  - Diarrhea



## INTRINSIC FALL RISK FACTORS

- **Neurological Disorders:**
  - Parkinson's Disease
  - CVA
  - Gait Disorders-



## EXTRINSIC FALL RISK FACTORS

- Physical Environment
- Foot Wear
- Assistive Devices



## EXTRINSIC FALL RISK FACTORS

- Physical Environment that has:
  - Inadequate or Poor lighting
  - Bathroom with- Lack of slip free showers and floor tiles, grab bars or shower benches or chairs with rubber grip,
  - Bed side tables and personal items not within the patients reach



## EXTRINSIC FALL RISK FACTORS

- Physical Environment that has:
  - Clutter and wet floors
  - Beds with non functioning side rails, or side rails down and beds in high position
  - Patient attached to IV therapy –IV pole & Pump.



## EXTRINSIC FALL RISK FACTORS

- Foot Wear :
  - improper fitting of foot wear
  - Non Slip resistant soles
  - Non Slip resistant socks
  - High heels



## EXTRINSIC FALL RISK FACTORS

- Assistive Devices that are inappropriately used or malfunctioning:
  - Canes
  - Walkers
  - Wheelchairs



## TYPES OF FALLS

- Accidental Fall
- Unanticipated Physiological Fall
- Anticipated Physiological Fall
- Intentional Fall



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## TYPES OF FALLS

- Accidental Fall
  - An unintentional fall
  - Patients can not be identified prior as a fall risk
  - On initial fall risk assessment patient has no fall risk



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## TYPES OF FALLS

- **Unanticipated Physiological Fall**
  - Physical Cause of the Fall not able to be identified on initial fall risk assessment
  - Is the result of conditions that are not able to be predicted before their first occurrence eeg; seizures or stroke.



## TYPES OF FALLS

- **Anticipated Physiological Fall**
  - Physical Cause of the Fall was identified on initial fall risk assessment
  - Is the result of existing conditions or previous fall risk factors that were previously identified.



## TYPES OF FALLS

- Intentional Fall
  - Occurs when a patient voluntarily positions themselves to a lower level or the floor.



I am almost there! Nurse I am going to fall!

## FIVE LEVELS OF INJURY

- None
- Minor
- Moderate
- Major
- Death



Organization Policy Included

- UTD- unable to determine from the documentation



## FIVE LEVELS OF INJURY

- **None**
  - The patient had no injury
- **Minor**
  - Injury resulted in application of dressing, ice, cleaning of wound, limb elevation topical medication, bruise or abrasion
- **Moderate**
  - Injury resulted in suturing, application of steri-strips/ skin glue, splinting or muscle or joint sprain.



## FIVE LEVELS OF INJURY

- **Major**
  - Injury resulted in casting, traction, fracture, or required consultation for neurological or internal injury
- **Death**
  - The patient died as a result of injuries sustained from the fall

## UNIVERSAL FALL PREVENTION STRATEGIES

- **Implement Universal Fall Precautions**
  - Orientate the patient & family to the environment
  - Have patient demonstrate the use of the call bell
  - Keep the call light within reach of the patient
  - Keep the patient's personal possessions within safe reach of the patient.
  - Keep the hospital bed in the low position while the patient is resting in bed

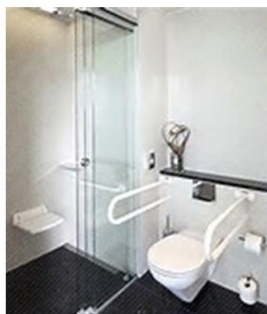
Prevent a Fall



## UNIVERSAL FALL PREVENTION STRATEGIES

### Implement Universal Fall Precautions

- Maintain sturdy handrails in patient bathrooms, rooms, and hallway.
- Perform hourly rounding for **P**ain, **P**ositioning for comfort, **P**ersonal Care/Toileting, **P**lacement of Possessions/**P**roximity (call light, phone, urinal etc.) and **P**lug-ins (electrical equipment/limit clutter)
- Instruct patient and family to call if patient needs to get out of bed.



## UNIVERSAL FALL PREVENTION STRATEGIES

- Adjust the bed to a comfortable height when the patient is transferring out of bed.
- Keep bed brakes in the lock position
- Keep wheelchair locks in the lock position once stationary
- Use night lights or supplemental lighting at nights
- Keep bathroom lights on at nights



## UNIVERSAL FALL PREVENTION STRATEGIES

- Don't restrict the patient's movements
- Educate patient and family about fall prevention strategies
- Keep nonslip, comfortable well fitted footwear on the patient
- Keep floor surfaces clean and dry
- Clean up all spills promptly
- Keep patient care area clutter free
- Follow safe patient handling practices



## INTEGRATION BEST PRACTICES FALL PREVENTION

- Registered nurse must perform fall risk assessment:
  - On admission
  - Each shift
  - As needed when patient condition changes
- Utilize fall risk assessment guidelines to identify
  - Patient risk for falls relevant to Intrinsic and Extrinsic Risk factors
    - Cardiovascular, Orthopedic, Perceptual, Cognitive, Neurological functioning, Assistive devices and Medications.



## INTEGRATION BEST PRACTICES FALL PREVENTION

- A patient found to be at Fall Risk must have:
  - A fall risk sign applied on the room door
  - A color-coded fall risk arm band
  - Fall/Injury Risk Nursing care plan activated and implemented
  - Primary physician alerted about patient fall risk
  - A patient sitter.



**INTEGRATION BEST PRACTICES FALL PREVENTION**

- Minimize Intrinsic Risk Factors
  - Educate patient and family about safety measures e.g.. call for help, do not ambulate unassisted and rise slowly
  - Monitor fall risk patients closely Q1H level 1 or Q30min for level 2 & 3.
  - Nurse moderate & high fall risk patients closer to nurses' station
  - Perform hourly( level 1) /30minutes (level 2&3) rounding for 5 P's (pain, potty, position, personal space & prior to leaving the room)



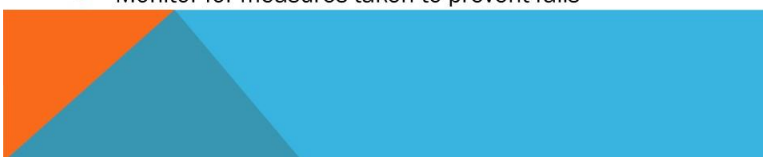
**INTEGRATION BEST PRACTICES FALL PREVENTION**

- Minimize Intrinsic Risk Factors
  - Never leave high fall risk patients unattended (sitter/relative at bedside)
  - Monitor for unintended injuries



## INTEGRATION BEST PRACTICES FALL PREVENTION

- Minimize Extrinsic Fall Risk Factors
  - Keep necessary items within the patient's reach e.g.
    - Bed pan, urinals, commodes, water, bedside table , call bell.
  - Effectively use proper assistive devices,
  - Keep beds in low position and side rails upright
  - Routinely assess environment for any fall risk hazards.
  - Monitor for measures taken to prevent falls



## INTEGRATION BEST PRACTICES FALL PREVENTION

- Minimize Extrinsic Fall Risk Factors
  - Educate patient about wearing slip resistant foot wear, regular shoes, or well fitting slippers.
  - Instruct wheel chair patients and patients on crutches about weight distribution and balance
  - Remove spillage promptly
  - Remove anything that is hazardous that is in the line of traffic e.g. carts, wires etc.
  - Ensure adequate lighting (night light & bathroom light on in the evenings & night)



## POST FALL INTERVENTIONS

- In the event a Patient Falls
  - Perform a complete physical assessment
  - Monitor vitals
  - Assess for Injury (6 levels) and any post fall complaints
  - The Associate present at the time of the fall or the associate immediately discovering the patient assesses for extrinsic fall risk factors in the environment where the fall occurred and address them promptly.
  - Notify the charge nurse, Physician, coordinator/supervisor and patient primary physician.
  - Patient is to be review by the ER/Primary physician



## POST FALL INTERVENTIONS

- In the event a Patient Falls
  - Document the incident findings of;
    - How it occurred
    - Patient assessment
    - Level of injury (6)
    - Treatment
  - Document in the Following areas
    - Medical record
    - Post fall evaluation and huddle form
    - Incident Report form.



## POST FALL PREVENTION STRATEGIES

- In the event a Patient Falls
  - The charge nurse/unit coordinator/nursing supervisor is required to visit the scene of the fall and review the post fall evaluation form with the associate no later than by the end of the shift in which the fall occurred.
  - Institute/Continue/escalate fall precautions
  - Charge nurse is to notify the patients next of kin explaining:
    - The circumstances surrounding the fall
    - Post fall assessment
    - Injuries identified
    - Precautions implemented post fall.



## WE ENCOURAGE YOU TO KEEP YOUR PATIENTS SAFE FROM FALLING

By Implementing Fall prevention strategies, you aid in:

- The Prevention of The 5 D's
  - Dissatisfaction
  - Discomfort
  - Disability
  - Disease
  - Death
- The Prevention of Prolong hospital length of stay
- Decreasing healthcare expenditure
- Reducing unwarranted Diagnostic investigations as a result of fall injuries





## REMEMBER ITS YOU ROLE TO SPEAK UP FOR PATIENT SAFETY

“Knowing is not enough; we must apply.

Willing is not enough; we must do.”

—Goethe



## REFERENCES

*Preventing falls in hospitals.* (n.d.). Agency for Healthcare Research and Quality. <https://www.ahrq.gov/patient-safety/settings/hospital/fall-prevention/toolkit/index.html>

*Transforming Care at the Bedside How-to Guide: Reducing Patient Injuries from Falls | IHI - Institute for Healthcare Improvement.* (n.d.). <https://www.ihl.org/resources/Pages/Tools/TCABHowToGuideReducingPatientInjuriesfromFalls.aspx>

