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Educational Training on Falls Intervention for Elderly Patients in Acute Care Settings

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This is to certify that the doctoral study by

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Abstract

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MS, Walden University, 2016

BS, Hertfordshire University, 2014

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Falls among hospitalized elderly patients are a safety concern for health care organizations and the patients they serve, but falls can be prevented through the team effort of nurses and other health care professions to promote safety within the organization. The project site was experiencing an increase in the number of patients falls and identified the need for staff education related to assessment and intervention to prevent patient falls in the elderly population. Thus, the practice-focused question for this project was whether an educational program on evidence-based fall prevention strategies using the American Medical Directors Association clinical guidelines would improve staff nurse ability to assess fall risk and apply intervention strategies for elderly patients in an acute care setting compared to standard practice. Lewin's change theory was used as the theoretical foundation for this project. A total of 29 cardiac unit staff nurses who participated in the educational program were provided information on recognizing risk factors for falls, conducting an accurate fall risk assessment using the Morse Fall Scale, and developing individualized care plan for managing fall risk. The Agency for Healthcare Research and Quality 2E Fall Knowledge Test was used in a pre- and posttest design to assess the efficacy of the educational program. The results showed a statistically significant increase ($p < 0.001$) in staff members' knowledge in recognizing, assessing, and managing falls. This project can improve nurse's knowledge with evidence-based recommendations in practice, which promotes positive social change through improved staff competency that may result in decreased patient falls and adverse patient outcomes.

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Section 1: Nature of the Project

Introduction

Falls are adverse events that commonly occur among elderly patients in a hospital setting. The Centers for Disease Control and Prevention (CDC, 2015), reported that 2.5 million elderly patients were treated in the emergency department due to falls from 2010 to 2012, and 734,000 of them were patients who were hospitalized at the time of fall. According to the Agency for Health care Research and Quality (AHRQ, 2018a), the estimated number of patients who fall in the hospital each year is between 700,000 to 1 million, which is increasing. Falls among elderly patients may cause permanent injury, decrease the quality of life, and limit the ability to function. An elderly person who experiences a fall may also develop a fear of falling again and choose to limit their activity (CDC, 2015; Healthy People 2020, 2014). Thus, falls can impact the elderly person's ability to engage in normal daily activities and cause them to lose their confidence and independence (National Institute for Health and Care Excellence, 2013).

The cost of fall-related injuries among elderly adults in the United States was $30 billion in 2015, and it is estimated that the cost will go up to $65 billion by 2020 (CDC, 2015). In Addition to monetary costs, the cost of falls may also include distress, pain, loss of independence and fear of mortality by patients. This project addressed the issue of patient falls at the project site by providing an educational program to improve nursing knowledge related to fall prevention. This project can promote social change by reducing the incidence of falls resulting in improved patient outcomes and decreased costs at the project site.

Problem Statement

The rate of patient falls especially among the elderly population at the project site has increased over the past 2 years and continues to rise in the cardiac unit. The project site is a 200-bed hospital in the Dhahran district of Saudi Arabia. A unit supervisor at the project site reported that there has been increase in number of falls from 2016 to 2018 especially in the telemetry step-down unit that provides care for elderly patients with cardiac diseases. The number of falls in 2016 was 23, increased in 2017 to 26, and in 2018 the number of falls is 28, which has shown an increase from 2016 to 2018. The fall rate is also two times higher than the National Database of Nursing Quality Indicators benchmark, which is 1.30 falls per 1,000 patient days (National Database of Nursing Quality Indicators, n.d.). Fall-related injuries in the hospital setting have been reported as the most frequent adverse events among elderly patients in the inpatient setting (Pearce, 2017).

A discussion with nursing leadership indicated that this increase in falls is related to lack of compliance with fall prevention strategies. It was noted that staff were not complying with the fall prevention strategies when the patient had a high score on the Morse Fall Scale (MFS). Staff did not apply the appropriate fall prevention interventions such as posting fall signs and applying the yellow fall risk armband and yellow nonskid socks on patients who are identified as being at risk for falls.

Nurses have primary responsibility for assessing patients to determine the risk of falling and implementing fall prevention strategies. Falls are considered a nurse-sensitive quality indicator because nursing care has a direct impact on the prevention of falls in the

hospital setting (Staggs, Davidson, Dunton, & Crosser, 2015). With this project, I served as the educator using evidence-based information to facilitate the learning process to educate nurses on fall prevention program. According to Barker (2014), staff education and their compliance with the fall prevention program has reduced the patient fall rates in an inpatient acute center by 50%. This educational project was intended to improve the knowledge of staff nurses at the project site and reduce the incidence of fall among admitted patients.

Purpose Statement

A nursing practice and knowledge gap has been identified in the project site in relation to fall prevention strategies. The purpose of this doctoral project was to develop and provide an evidence-based fall prevention education program for staff nurses on the cardiac unit of the project site. This project aided in developing a culture of safety and understanding of evidence-based fall prevention strategies through staff education, which can decrease the fall rate among elderly and at-risk patients. The project site aims to provide safe care for all patients by implementing best practices in preventing patients falls during their stay in the hospital. The project question is "Does an educational program on evidence-based fall prevention strategies using the American Medical Directors Association clinical guidelines improve staff nurse ability to assess fall risk and apply intervention strategies for elderly patients in an acute care setting compared to standard practice?"

Nature of Doctoral Project

This capstone project is an educational program focused on fall prevention and harm reduction to patients within the project setting. I developed an education session based on a review of the evidence to address evidence –based practices (EBP) in fall prevention, including use of Morse Falls score. Through education and staff competency, I hoped to reduce the number of falls at the project site by increasing knowledge on fall prevention. According to the American Nurses Association (2014), patient falls are a nurse-sensitive performance indicator, which suggests that nursing education can influence nursing performance and improve patient outcomes. In nursing practice, health promotion is an important component of patient care.

The goal of the education session was to improve nurse competency regarding patient fall prevention, especially among the elderly populations. All staff members who attended the educational program were asked to take a pretest using the AHRQ Tool 2E Fall Knowledge Test to evaluate their baseline knowledge on the assessment tool and fall prevention. Following the educational session, a posttest with the AHRQ Tool 2E Fall Knowledge Test was given to staff members to assess the effectiveness of the program. A comparison of pre- and post-test scores was conducted using descriptive statistics to evaluate the impact of the educational program of staff knowledge related to EBP fall prevention strategies. This educational program addressed the project site concerns about nursing knowledge about fall prevention strategies.

Significance

Falls in the hospital setting among elderly adults has been an ongoing issue in the United States. According to the Washington State Hospital Association (2014), the incidence of falls is between 700,000 and 1,000,000 people which range from 1.6 to 3 per 10,000 populations. Falls in the elderly can cause many complications and increase the length of stay in the hospital due to complications from injuries, which increases the financial burden of an organization. However, most falls can be avoided when interventions are in place that includes environmental adjustments and modification of patients' risk factors through education session (McDonnell & Kerr, 2014).

Stakeholders for this project included the site administration, staff, and patients. Administrative permission was obtained to provide education at the project site. The educational program may be effectively applied in other units within the facility and in other health care organizations to aid in increasing staff knowledge and decrease fall rates. Social change will occur because of increased staff competency related to EBP fall prevention strategies. According to Bing-Jonsson et al., (2016), through increased competency, the incidence of falls can decrease, resulting in fewer adverse events for patients and improved revenue for an organization.

Summary

The incidence of falls in the hospital setting contributes to several adverse outcomes: therefore, there is a need to improve staff knowledge of EBP fall prevention strategies. This DNP project is an educational program designed to increase staff competency and potentially reduce the incidence of falls at the project site. According to

Bassett, Siu, and Honaker (2017), having a prevention protocol in place and implemented has shown effectiveness in the incidences of fall reduction. The fall prevention education project conducted in the project site helped to increase the knowledge of the staff nurses in recognizing, assessing, and managing falls. This will be a foundation for improving communication among nurses and other interprofessional health care members in incorporating current evidence-based recommendations into practice. Multi-faceted EBP protocols give staff an opportunity to identify the patients who are at risk of a fall, which is an important step in the process of preventing falls. The next section of this paper will describe the theoretical foundation for this project and the results of my literature review.

Section 2: Background and Context

Introduction

Falls have been reported to be the second leading cause of unintentional injury in the world (World Health Organization, 2018). Further, in a health care institution, falls that occur with or without injury is the second most commonly occurring adverse event (Centers for Medicare & Medicaid, 2015). Falls are the leading cause of hospitalization for adults aged 75 and older (Gell, Wallace, Lacroix, Mroz, & Patel, 2015). The geriatric population is at increased risk for falls due to physiologic changes that occur with aging. Contributing factors of a chronic condition, acute illnesses, and medications place an individual at increased risk of falling (Phelan et al., 2015). According to the National Quality Forum, patients falls should be a "never event" in the United States, but even with this classification falls still occur (AHRQ, 2014).

The supervisor of the project unit shared that the fall prevention protocol has not been implemented due to lack of understanding from staff, which led to the practice-focused question of "Does an educational program on evidence-based fall prevention strategies using the American Medical Directors Association clinical guidelines improve staff nurse ability to assess fall risk and apply intervention strategies for elderly patients in an acute care setting compared to standard practice?" The purpose of this DNP project was to provide an education session to educate the nurses on fall prevention strategies based on EBP on elderly patients in the acute care setting. A description of the theoretical framework used in this project, definitions of key terms, and a review of the literature related to falls will be presented in this section.

Concepts, Models, and Theories

To improve organization level of service, it is important to identify the appropriate theory or model as the framework for implementation, management, and evaluation of change (Nilsen, 2015). Lewin's change theory was the framework for this DNP project with a goal of educating staff nurses with a focus on changing the culture and commitment to fall prevention (see Mackey & Bassendowski, 2017). The three-step approach described by Lewin was used as a guide in providing education that is intended to result in an evidence-based change in practice. Lewin's theory addresses three stages of change including unfreezing, change, and refreezing (Burnes & Cooke, 2013). Lewin's theory of change was chosen for use for this education project because it aligns with the project objective of promoting positive clinical practice change and promoting a culture of safety.

Lewin's theory was the suitable framework for this project because assisted in changing nursing practice through education about evidence-based fall prevention strategies. There are other models that might be suitable, but Lewin's theory was selected because of its three phases (unfreezing, change and refreezing) that support the concept of driving forces to facilitate change. For example, Knowle's theory of androgyny or Mesirow's transformation learning theory could be used to facilitate and guide the development of learner-centered education for nursing. Both theories explain adult learning principles and could serve as a guide for development of an effective educational program (Christie, Carey, Robertson, & Grainger, 2015). However, though the intervention for this project is the educational program, the overarching goal was to

improve nursing competency related to fall prevention, which will promote positive change toward a culture of safety. Education is the mechanism for sharing EBP recommendations, but to improve patient outcomes and decrease fall rates the staff nurses must be motivated to change their practice.

Lewin's theory of change guided the process of applying education to change practice. The first stage of Lewin's change theory is the unfreezing stage, which involves creating motivation for change and a willingness to move away from the status quo (Batras, Duff, & Smith, 2016). The unfreezing stage begins with education about the negative impact of falls on patients, health care providers, and organizations. The unfreezing phase involves letting go of what has been done in the past and replacing it with current EBP (Barrow & Toney-Butler, 2018). This stage is important because it helps in learning and understanding the proposed changes through education and collaborative efforts in finding solutions to improve outcomes (Cummings, Bridgman, & Brown, 2016).

The second stages of Lewin's change theory are moving or change (Batras et al., 2016). During this stage the nurses and other staff members would begin to understand the consequences of falls and embrace actions to promote patient safety and reduce harm. Staff nurses learned about how falls are a nurse sensitive indicator and EBP that can be used to prevent falls. Education regarding the fall intervention implementation during the moving stage needed the support from the stakeholders, leaders and staff to ensure there is a change in behavior and acceptance of the new process. The involvement of the team, which included nurses, clinical educators, and managers, allowed staff to have a sense of

ownership toward success of the education program project. As the project leader, I also acted as a change agent through educating staff to embrace the change toward improving health outcomes. The education session helped provide staff with understanding of fall prevention and be an advocate for patient safety through translating best evidence-based practices and evaluating the outcome of the practice change of fall prevention intervention (Wojciechowski, Murphy, Pearsall, & French, 2016). Lewin believed that education was required to address the resistance within the team and organization (Cummings et al., 2016).

The final stage of Lewin's theory is the refreezing stage where the change has occurred (completion of training) and needs to be sustainable for nurses to carry out in their daily routine. To ensure the success of the refreezing stage it is important to obtain commitment and motivation of stakeholders to implement the fall prevention strategies in their practice. According to Cummings et al., (2016), there might be challenges along the way but through an education session staff can change their practice by being involved actively in implementing the prevention strategies, which will bring benefit to the patient.

Definitions

The terms used in this project are defined in this section.

Evidence-based practice (EBP): Is "a practice that involves making clinical decisions on the best available evidence, with an emphasis on evidence from disciplined research" (Polit & Beck, 2017, p. 728).

Fall: Defined as "a sudden, unintentional descent, with or without injury to the patient that results in the patient coming to rest on the floor, on or against some other surface, on another person, or on an object" (AHRQ, 2018, p.70).

Morse fall scale (MFS): A method used to assess patients at risk of fall. It is a simple 3-minute task to fill in the form to ensure the correct implementation protocol has been initiated (Morse, Morse, & Tylko, 1989).

Relevance to Nursing Practice

This DNP project on fall prevention is necessary to strengthen and enhance staff knowledge on fall prevention and improve patient safety. The education session was conducted at the unit base and highlighted during staff meetings, which enabled an opportunity toward team building and may increase the compliance rate in applying the fall prevention interventions for patients who are identified as having a risk for falls.

I reviewed the literature to support the relevance of this project with the following database and websites: MEDLINE, CINAHL, PubMed, and Google Scholar databases and the AHRQ, the American Nurses Association, the CDC, the Centers for Medicare and Medicaid Services, and Institute for Health care Improvement websites.

The literature search was limited to peer-reviewed articles and data from reputable sources and dissertations. Only literature from the past 5 years was included in the search, unless there was a compelling reason to include it such as seminal work. A combination of keywords and Boolean operators were used to complete this literature search: *fall, fall prevention, fall and hospital, fall and outcomes, multifactorial assessment, prevention strategies, education through evidence-based practice (EBP) and*

fall, and fall prevention and patient. The primary focus of the literature review was to understand the prevalence of falls, the impact of falls on the elderly, health care providers, and organizations. Additionally, literatures related to successful fall prevention strategies were included in the review.

Prevalence of Falls

Falls continue to be a serious safety concern, especially for the elderly, both in and out of the hospital setting. According to the AHRQ (2018a), patient falls are one of the most common sources of hospital-related harm. In the hospital setting, more than one-third of falls result in serious injuries (AHRQ, 2018a). Some patients who fall will not have serious or permanent physical injuries, but many patients who fall experience distress, anxiety, and fear, which may result in reduced independence and feelings of loss for the patient (Anderson, Dolansky, Damato, & Jones, 2015).

Falls are most common in the elderly population. According to CDC (2017), more than 25% of elderly people fall annually, and 3 million elderly people are treated in emergency departments for falls each year. Of these patients, more than 800,000 are admitted to the hospital for fall-related injuries (CDC, 2017). The prevalence of falls among the elderly population is more common in women than men, though both genders are at considerable risk for fall related injuries (Poh & Shorey, 2018). According to the CDC, fall rates in the United States have increased 30% in the past decade. This is despite hospital benchmarking, quality initiatives, and implementation of fall prevention programs. If this escalation of falls continues, it is estimated that seven people will fall every hour by 2030 (CDC, 2017). This increased rate of falls in the United States, and

globally, is linked to longer life spans and an increase in the elderly population (Burns & Kakara, 2018). Therefore, it is critical that age-specific assessments and fall prevention strategies were included in this DNP educational project.

Consequences of Falls

Impact on patients. Falls affect people of all ages; however, the elderly population is most impacted. According to Burns and Kakara (2018), unintentional injuries are seventh leading cause of death in older adults, and falls are the most common type of unintentional injury. Falls have a profound impact on patients and their families; falls can lead to serious injuries and hospitalization. Fractures, especially hip fractures, are commonly associated with falls (CDC, 2017). Falls also can lead to serious head injuries and death, particularly in older adults (Burns & Kakara, 2018; CDC, 2017). The impact of falls among the elderly population is not limited to physical injuries. Falls also have a negative impact on social and emotional well-being. They impact the patient's sense of independence, which can lead to being isolated socially due to fear of falling again. People who survive a fall may experience deterioration in their quality of life and personal experiences (Alexiou, Roushias, Varitimidis, & Malizos, 2018).

Impact on organizations. Falls are considered a "never event" for health care organizations. This means that because falls are preventable, they should never happen in a hospital setting (AHRQ, 2018b). Despite many quality and safety mandates, falls continue to be a common and often devastating occurrence in hospitals (AHRQ, 2018b). Falls in the hospital setting can result in poor quality outcomes, accreditation non-compliance, decreased patient and staff satisfaction, and significant financial losses

related to non-reimbursable costs and litigation (AHRQ, 2018b; Centers for Medicare & Medicaid, 2018). Falls within a hospital setting are considered a "hospital acquired condition" and the costs associated with a fall are the responsibility of the facility (Centers for Medicare & Medicaid, 2018). An elderly adult who falls in the hospital setting and suffers disability is likely to have an extended hospital stay and may require long-term care resulting in significant costs for the organization (Berry, Kiel, Schmader, & Sullivan, 2017).

Impact on healthcare costs. All over the world, there is a significant increase in the health care impacts and the costs from falls, especially in elderly patients. Florence et al., (2018) estimated that fatal and non-fatal falls in older adults (> 65) in the United States cost more than 50 million dollars in 2015. Approximately two-thirds of these costs were paid by Medicare and Medicaid (Florence et al., 2018). The high financial cost associated with falls is not limited to the United States. According to the World Health Organization (2018), falls are a global concern and the second leading cause of accidental death worldwide. Globally, there are more than 37 million falls per year that require some level of medical intervention. The cost per fall event varies based on geographical location and is substantial in all areas of the world (World Health Organization, 2018).

Falls as a Nurse Sensitive Indicator

In health care professionals, nurses have the greatest impact on falls as they are the frontline of patient care (Shumba & Abraham, 2017). The American Nurses Association and the National Database of Nursing Quality Indicators list falls as one of the nurse-sensitive performance indicators whereby the mission of the nurse is to reduce

the fall rate in the hospital settings by delivering patient centered and safe care (American Nurses Association, 2014).

According to Dubois et al., (2017), when there are changes in nursing practice nurses are not always motivated to embrace those changes. Nurses face demanding workloads and must understand the intent of quality initiatives and the direct correlation to their patient outcomes. Therefore, the need to gain nurses participation in an acute care setting is by giving nurses a chance to be part of changing the guidelines and share their creativity in implementing relevant factors in fall prevention through education session is necessary.

Impact of Nursing Education on Fall Rates

Falls are more common when there is a deficit in nursing knowledge in identifying the patients at risk of fall. Educational sessions can help in preventing patients from sustaining injury from falls in the hospital setting. To reduce the incidence of falls nurses must understand the risk factors that predispose patients to falls and be knowledgeable about appropriate nursing intervention strategies can be used to mitigate the risk of falls (Leone & Adams, 2015). Education and initiatives that lead to a culture of safety are effective in reducing fall rates (Leone & Adams, 2015). Falls may not be completely preventable, but with the knowledge obtained through an EBP education session, proper care plans, and intervention strategies can be implemented to decrease the incidence of falls (McKenzie et al., 2017). According to Institute for Health care Improvement (2014), fall prevention strategies can be successful when staff has been educated on using the risk assessment tool such as MFS to help identify the patients who

are at risk of fall and implementing the fall prevention protocol earlier. Further, a study by McKenzie et al., (2017) demonstrated a reduction of falls among hospitalized patients by implementing an education session and training about fall reduction programs, which included the use of the risk assessment tool MFS and practice guidelines from evidence-based literature.

Local Background and Context

The project site is a teaching hospital in the Dhahran district in Saudi Arabia. The project site has experienced an increase in fall rates in the past few years. An effort to improve the fall rate at the site this project was initiated through staff education on the cardiac unit to promote and understanding of fall risk factors and safety strategies that can be used to prevent falls. The cardiac unit was selected for this project because of the high number of older adults admitted to this unit. According to hospital leadership, a lack of knowledge and awareness of the fall prevention strategies and risk assessment tools is one of the factors which have led to high fall rates on the unit. The fall rate in the unit has increased by 50% within a six-month period, and the need to reduce falls is an organizational priority. Currently, the organization uses the MFS as the fall risk assessment tool and nurses are expected to record results in the electronic medical record to calculate the fall risk score for every patient on admission. According to a unit supervisor, this is not being carried out appropriately due to lack of understanding related the use of the risk assessment tool and ability to identify factors that increase the risk of falls.

The organization uses MFS which has six components including history of falls, secondary diagnosis, ambulatory aids, intravenous therapy, gait and mental status as illustrated in Appendix A. The patients are expected to be categorized as either being at low moderate or high risk for falls based on the MFS and nurses are required to implement appropriate interventions to prevent falls. The unit requirement is that all nurses need to assess their patients at the beginning of each shift using the MFS and to assess the changes in patient's condition and fall risk. The MFS has been proven to be a reliable and valid tool for assessing the patients fall risk in fall prevention projects if being utilized correctly (Bassett, Siu, & Honaker, 2018). Nurses on the unit lacked an understanding of the nature of falls, the use of fall assessment tools such as the MFS and fall mitigation strategies.

The DNP project was to initiate an education program in the Cardiac Unit in the organization to increase nursing competency and nurse's ability to analyze and identify patients at risk of falls. The education program aims were to improve the health of the elderly population and the delivery of safe care. The plan will be to expand the education program to other units based on the positive results from this project.

Institutional Context

The number of incidence of falls continues to rise in Saudi Arabia and one of the priorities in health policy among Saudi care organizations is to better understand the prediction of falls among elderly patients (Alsaif & Alsenany, 2018). The increase in the number of falls among elderly patients in Saudi Arabia presents numerous challenges in the health care system. The organization is a private hospital with a 300 + bed capacity

with specialties ranging from General Medicine, Surgery, Cardiovascular and Cardiothoracic and Urgent Care, which deals with local injuries especially for the employees of the oil company. Other services available are Specialist Clinics for Diabetes, Respiratory Care, Palliative Care and Pain Management. The patients who are admitted in the organization are mostly elderly population aged between 65-75 years old consisting of both male and female patients with many underlying medical conditions. The education program will create a meaning through interaction with external environment and cultural cognitive elements through the organization structure which rise from the organization mission, vision, values, leadership and professional growth.

This project is being completed in Saudi Arabia. There is no applicable state or federal regulations that impact this project. The management of falls and fall prevention in Saudi Arabia are like the United States. In the United States when a fall occurs the Centers for Medicare & Medicaid Services has stopped the reimbursement for cost related to patient falls with a no-pay policy (Fehlberg et al., 2018). This is not the same situation in Saudi Arabia when a patient has a fall during their hospital stay it does not have any effect on payments. The medical coverage for patients is covered by the government and insurance policy, therefore the organizations are not affected for any fall related incidences in a hospital setting.

Role of the DNP Student

I have nursing experience of 21 years as a registered nurse working in various nursing units and holding many positions from bedside nurse to nurse leader within the project site. Using EBP as a tool of education has impacted better outcomes of patient

care and an increases nurses' knowledge. My purpose for this project is to have an education program in place based on the latest EBP to increase the knowledge of nurses.

Being a DNP student in my organization, I will analyze the gaps in training and attempt to address those gaps to improve the quality of care and as advance the nursing profession. The reason for choosing fall prevention education as my project is to impact the quality of care among elderly patients by preventing falls and improving the nursing care delivered to patients as this is a nurse-sensitive outcome. My role was to prepare the educational material which will bring benefit to improving the health care problems by using EBP in addressing the fall issues. The materials for the education program were in the form of a presentation intended to be delivered in a classroom setting.

Role of the Project Team

The education program included a team of staff comprised of leaders, unit supervisor, unit managers, a nurse educator, and me. The nurse educator reviewed the education material before obtaining approval to conduct the education session. The unit supervisor's role was to support the staff to attend the education session as part of their working hours as it would have been difficult to get staff to participate on their days off. To initiate the proposed education project support is required from the unit manager and leaders by requesting them to attend meetings where the layout of the program was discussed with them. Their role was to be part of the fall prevention committee. The proposed timeline of the project was communicated to each team members every week so that they were aware and informed with the project. Support currently exists from hospital leadership for this educational project.

Summary

The current evidence indicates that falls remain a serious public health issue and nursing education can be instrumental in reducing the rates of falls in the hospital setting. Nursing knowledge can be increased through education and integrating of EBP into the clinical practice by ensuring that safe and quality care is provided to the patients. The theoretical framework of Lewin's Model was used as guidance for the educational project. In the next section, I will discuss how this project will be implemented, including data collection and analysis methods.

Section 3: Collection and Analysis of Evidence

Introduction

Falls are a serious health concern, especially in the elderly population. Falls have a negative physical, emotional, and financial impact on patients (CDC, 2017). At the project site, there has been an increase in the number of falls among elderly patients admitted to the cardiac unit over the past 2 years, which led to the development of this educational project. Staff education was provided to nurses on evidence-based fall prevention strategies with the goal of improving nursing competency in fall risk assessment and prevention. The education sessions created an awareness of fall prevention among staff and helped to reduce the fall rate by promoting a culture of safety on the nursing unit.

In this section, I address the methods that I used to implement this DNP project, including how the educational sessions were provided and the sources of evidence I used to develop and assess the project. This section also provides information about the collection and analysis of data with a description of how ethical issues and confidentiality was handled.

Practice-Focused Question

In the past 2 years, the project site has experienced an increase in the number of patient falls. According to the unit supervisor, the organization leadership indicated that the increased rate of falls is related to a lack of understanding of how to assess for fall risk and implement appropriate fall prevention strategies. The intent of this project was to provide education on fall prevention using evidence-based recommendations for staff

nurses employed in the cardiac unit at the project site. Thus, the practice-focused question is as follows: Does an educational program on evidence-based fall prevention strategies using the American Medical Directors Association clinical guidelines improve staff nurse ability to assess fall risk and apply intervention strategies for elderly patients in an acute care setting compared to standard practice?

Based on the practice question, I conducted a review of current EBP recommendations for fall assessment and prevention. An educational program was developed in collaboration with the nurse educator to implement nursing-specific fall prevention and intervention strategies for nursing staff. The education program is mandatory for all levels of nursing staff. The completed education program was three sessions per week, and the training took between 30 to 45 minutes over a period of 2-week period. The intent of this educational program was to improve nursing competency related to fall assessment, including the MFS, and strategies for fall prevention.

Sources of Evidence

Best practice trends and the most updated research on fall management were the guide for the development of this educational program. I developed the educational materials following a search of the literature, and the unit supervisor and nurse educator assessed the materials prior to implementation of the program. Nurses were required to attend training at the direction of unit leadership, but participation in the anonymous pre- and post-test was voluntary following signing of an informed consent. Class participants were asked to complete a pre- and post-test using the AHRQ Tool 2E (see Appendix B). The AHRQ Tool 2E is an evidence-based knowledge test that is available for use from

the AHRQ website. It was adapted from the Singapore Ministry of Health Nursing Clinical Practice Guidelines on Prevention of Falls in the Hospital and Long-Term Care Institutions (AHRQ, 2013).

Evidence Generated for the Doctoral Project

Participants

The participants for this project were 29 registered nurses in the cardiac unit. Their participation was mandatory because the falls rate in this unit were high compared with that of other units. This project was an education program that helped to address the issue of falls in the unit, and nurses were given education sessions through classroom presentation and hands-on training that has helped to increase their knowledge in implementing fall prevention strategies and develop an individualized care plan based on their risk assessment.

Procedures

After development of the educational program, nurses were scheduled to attend training. Prior to the class start, nurses were asked to complete the AHRQ 2E Fall Knowledge Test to assess their baseline knowledge. Education was provided using the program developed for this project. Following training, the participants were asked to repeat the AHRQ 2E Fall Knowledge Test. Findings were compared using a paired t-test to determine if the educational program improved staff nurse knowledge regarding falls and fall prevention strategies.

The components of American Medical Directors Association (2011) on falls and the Fall Risk Clinical Guideline Prevention Program, which utilizes a validated fall risk

assessment, clinical guidelines and care plan in managing patients at fall risk, was included in the education program and implemented in the Cardiac unit. The American Medical Directors Association clinical guideline (Appendix C) was intended to assist nurses in understanding the risk factors associated with falls and as a guide for conducting, assessing and implementing appropriate fall prevention strategies among elderly patients (American Medical Directors Association, 2011).

Protections

IRB approval was gained through the Walden IRB using the DNP Staff Education Manual Prior to implementation of this project. Participants for this project were nurses who gave their consent prior to participating in educational project. No risk is involved for participants in this project. No staff or patient information was collected, and the project is solely intended for education, so there will be no loss of privacy or breach of confidentiality. No information gathered had any identifying information, and the information is protected in a locked file box kept by the project leader.

Analysis and Synthesis

This project analyzed and synthesized the pre-test and posttest using the AHRQ 2E Fall Knowledge Test given to the nurses to assess their knowledge of risk of falls among elderly patients and the prevention strategies which needs to be implemented (AHRQ, 2013). Following the pretest, staffs were educated on the fall prevention protocol and a tip sheet- (Appendix D) was given which had information regarding the risk of falls and the strategies required to prevent the fall in the future.

The education session focused on ensuring staff will maintain safety as the number one priority in the cardiac unit (Appendix E). A pretest was administered with staff participants prior to the education session. Staff were given a number to place on both the pre- and post-tests; however, the number was not listed as belonging to a named individual to maintain anonymity. It was used to match the exams. Following the educational session, a posttest was given to evaluate the effectiveness of the education provided. Data from the pre and posttest was evaluated in SPSS v.25 and compared using a paired t test and descriptive statistics. The results of this pre and posttest are discussed in the next section.

Summary

Falls are a major public health issue affecting especially the elderly population, and every year falls leads to billions being spent in health care-related cost (CDC, 2015). Nurses are aware of the significance of fall- related issues and even though they have the basic knowledge, there is inconsistency in the practice of fall prevention assessment and management. Having an education program at the project site has helped to improve the nurses' knowledge and the collected and analyzed data from the pre- and posttest gave a baseline of staff understanding and knowledge of fall prevention assessment. This data was used to evaluate the education program and make further improvement in strategizing the factors which contributes to fall among elderly patients in the organization. Nurses participating in this project were 29 staff, consisting of registered nurses of all levels.

Section 4: Findings and Recommendations

Introduction

There has been an increase of number of falls over the past 2 years among elderly adult patients in the cardiac unit at the project site. Management at the organization needed an action plan to decrease the inpatient fall rate. The identified practice problem was that nurses were not compliant toward implementing strategies on falls prevention, especially with patients who had high scores on the MFS tool, such as applying yellow arm bands for all risk patients or applying yellow nonskid socks on the patient.

An education session to explain the inpatient fall program was initiated with the help of the project team members consisting of the unit supervisor and nurse educator. The practice-focused question for this project was "Does an educational program on evidence-based fall prevention strategies using the American Medical Director Association clinical guidelines improve staff nurse ability to assess fall risk and apply intervention strategies for elderly patients in an acute care setting compared to standard practice?" The purpose of this project was to establish an education session for staff in the cardiac unit focused on fall assessment, prevention, how to utilize the fall risk assessment tool for elderly patients and reducing the rate of falls.

To evaluate the effectiveness of the education session on falls prevention program the evaluation tool used was the AHRQ Tool 2E (Appendix B) questionnaire. The response from staff on the pretest and posttest helped me to determine the impact of the education session conducted of staff compliance on falls prevention strategies. The AHRQ Tool 2E is an evidence-based knowledge test that was developed by the Singapore

Ministry of Health Nursing Clinical Practice Guidelines (AHRQ, 2013) and later applied by Koh, Hafizah, Lee, Loo and Muthu (2009) in a fall education study. Specific data validating this tool was not available; however, the tool is published as a no cost resource as a part of the AHRQ (2013) "Preventing Falls in Hospitals" EBP toolkit.

Findings and Implications

An educational project was delivered to all staff on the cardiac unit from March 21st to April 2nd, 2019. A pre- and post-test using the AHRQ Tool 2E was given to staff who attended the education session. The pre- and post-test had a total of 13 questions, which were the same for both tests. The data were collected using a numbering system to provide participant anonymity for both the pre and posttest. No identifying information or names were collected when assigning participant numbers. Following the education session, the pre- and post-test were graded and an analysis of the scores was completed to determine the effectiveness of the education session. Scores from the pre- and post-test were entered in an Excel spreadsheet and uploaded to SPSS v.25. The difference of the pre- and post-test scores was calculated, and it showed a statistically significant ($p < 0.001$) increase in knowledge gained by staff on the use of the fall assessment tool. In the following sections are a statistical summary of the data analysis for the pre- and post-test of AHRQ 2E Knowledge Test (see Table 1).

Fall Prevention Staff Education Project Pre- and Post-Test Results

A total of 29 staff participated in the education and completed a pre- and post-test. Mean pretest scores were 8.37 (out of 13) compared to a mean posttest score of 11.68 (see Table 1). This represents a mean increase in scores of 3.31. All but one participant

(96.5%) had an increase in posttest scores ranging from one to six additional correct answers following the education program (see Table 1 and 2). A paired *t* test was conducted using SPSS v. 25 to determine the impact of the educational program on staff competency. The findings are statistically significant ($p < 0.001$; see Table 2) for improved understanding related to fall prevention in the acute care setting with a 96% confidence interval (see Tables 3 and 4).

Table 1

Fall Prevention Staff Education Exam Results

Student	Pretest score	Posttest score	Difference
1	8	11	3
2	6	11	5
3	9	12	3
4	10	12	2
5	7	10	3
6	8	13	5
7	7	11	4
8	7	12	5
9	9	12	3
10	11	13	2
11	10	13	3
12	8	11	3
13	7	11	4
14	7	10	3
15	6	10	4
16	8	11	3
17	5	11	6
18	7	13	6
19	6	10	4
20	9	12	3
21	8	13	5
22	8	12	4
23	9	10	1
24	10	13	3
25	12	13	1
26	11	13	2
27	13	13	0
28	8	12	4
29	9	11	2
Mean	8.379310345	11.68965517	3.310344828

Table 2

Paired Samples Statistics

		Mean	*N*	*SD*	Std. error mean
Pair 1	Pretest score	8.3793	29	1.87871	.34887
	Posttest score	11.6897	29	1.10529	.20525

Table 3

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Pre- and post-test score	29	.643	.000

Table 4

Paired Samples Test

	Paired differences							
				95% CI of difference				
	Mean	SD	Std. error mean	Lower	Upper	T	Df	Sig. (2 tailed)
Pre- and post-test score	-3.31034	1.44181	.26774	-3.85878	-2.76191	-12.364	28	.000

Table 4 demonstrates that the pretest and posttest scores were positively correlated ($r = .643$, $p < 0.001$). There is significant mean difference between the pretest and posttest scores ($t = 12.364$, $p < 0.001$). On average, the pretest scores were 3.310 lower than the posttest scores (95% CI [3.85, 2.76]).

Overall, the results from the data collected as shown in Tables 2-5 demonstrate that staff on the Cardiac unit lacked knowledge of fall risk assessment and prevention strategies. After the education session, staff has gained better knowledge in assessing

patients at high risk of fall by using the fall risk assessment tool and initiating the appropriate fall prevention intervention.

As a result of this staff education project, nurses gained improved knowledge in identifying the factors associated with falls. Pre- and post-test data demonstrate that the educational program improved staff nurse ability to assess fall risks and apply intervention strategies in the classroom setting. Additional evaluation of the educational program through chart audits and fall incidence tracking is recommended to determine the clinical impact of this DNP project.

This project has resulted in positive social change for the patients, staff, and organization. Patients will benefit from this educational project because they will be safer and less likely to fall while in the hospital. Staff benefitted, by gaining new insight into how to properly assess patient risk, document and communicate findings, and prevent falls by implementing evidence-based strategies for fall prevention. The organization may experience positive social change through reduced morbidity and mortality resulting from patient falls.

Recommendations

The staff education session resulted in an increase in knowledge among nurses in the cardiac unit. My recommendation would be to expand the education session to other departments and implementing this as an annual education competency program. A further recommendation will be to elect a unit fall champion whom will be responsible for continuing the education program. Education is a critical component of the fall prevention program. Management should be pro-active in communicating and providing

ongoing education for policy revisions and regulatory standards regarding patient preventative safety measures (Boushon et al., 2016).

Contribution of the Doctoral Project Team

The doctoral project team consisted of the Nurse Educator and Unit Supervisor who worked alongside with me in the plan for the education session on fall prevention. The project team members encouraged and supported me throughout the education session from the start to the end. They gave me an opportunity to educate the nurses and enabled me to collect the data I needed to support my education session. They gave me feedback on my performance and I shared my data with them to show the improvement of nurses' knowledge through the education session. The project team is evaluating the impact of the education program and will be extending it to other units.

Strengths and Limitations of the Project

The objective of this project has been achieved as nurses have gained knowledge and changed their perception and behavior on preventing falls among elderly patients. Strength of this project was the project site's support of the education program and strong participation by staff. The hospital is interested in expanding this program. A limitation of this project is that it was conducted on one unit; therefore, findings may not be generalized to other units or facilities. The normal practice has been changed with current EBP which was based on American Medical Directors Association (2014) falls risk clinical guidelines. Future education where staff evaluate the components of American Medical Directors Association guidelines and explore additional evidence-based recommendation could further improve staff competency in fall risk and harm prevention.

Having the support and involvement from the management of the organization is required in establishing the patient safety and improvement process.

Section 5: Dissemination Plan

Introduction

Falls among elderly adults are a significant health problem, contributing to a health care burden that includes an increase in health care use, cost, and length of stay. However, nursing education can provide staff knowledge on fall screening and prevention in elderly patients. Disseminating the findings of this EBP project will assist staff to expand their knowledge on fall prevention in health care settings (LoBiondo-Wood, Haber, & Titler, 2018).

I provided this educational project on fall screening and prevention to all nursing staff in the cardiac unit with support from team members consisting of the cardiac unit supervisor, and cardiac nurse educator. Team members were stakeholders in this project and served as the panel of experts to provide content evaluation. The education project was disseminated through a Power Point presentation (Appendix E), which helped staff to understand the falls prevention program and the implication on nursing practice.

Data indicated that the education project had a beneficial impact in the cardiac unit, as it helped to improve nursing staff knowledge. Participant evaluations indicated increased knowledge and understanding of strategies on fall precautions, and this is shown through a reduction in the number of falls in the cardiac unit.

Project results will be presented to the stakeholders and the director of the heart and vascular department. Upon approval from the director, the educational program will be implemented in all medical surgical units in the facility. This second phase of implementation will take place after I graduate.

Future dissemination plans include a presentation to weekly hospital grand rounds, including pre- and post- implementation fall data. Additional recommendations will be to gather comparative data on fall rates 30 days before and after staff education sessions have been implemented in each medical surgical unit. Data can be analyzed using the hospital quality improvement data. Data analysis with the quality improvement department will be accomplished post-graduation. Monitoring and reinforcement of fall prevention education session will help to ensure compliance (Moyer & Graebe, 2018). I also plan to submit an abstract for poster presentation at the yearly cardiac conference to be held in October 2019. Poster presentations provide an opportunity to share information to a wide audience which supports EBP in nursing (Graystone, 2018).

Analysis of Self

As a team leader in this project I was able to conduct an educational program that helped in developing my confidence, assessment skills, and critical thinking. I wanted to do more than my daily duty; therefore, I pursued my Doctorate in Nursing Practice (DNP) to make a difference in many people's lives by changing the work environment for nurses and potentially improving patient care. This DNP project has made me grow in my professional role and career and understand better the importance of the American Association of College of Nursing (2006) DNP Essentials; which were Essential III and VI used within my project (see Table 5).

Table 5

Meeting Doctor of Nursing Practice Essentials

DNP Essentials	DNP Essential Outcome
Essential III- Clinical Scholarship and Analytical Methods for Evidence-Based Practice	Reviewed literature databases and evidence-based fall prevention programs to design, implement, and evaluate an evidence-based education
Essential VI- Interprofessional Collaboration for Improving Patient and Population Health Outcomes	Involved stakeholders in the implementation process of a fall prevention Program. Involved multidisciplinary team members to improve the project performance by creating a safe environment and decreasing the incidence of falls.

Completing this project has encouraged me to continue conducting more translational research and to identify the need for improvement in patients' safety. I have learned to develop an action plan based on the problem faced in the acute care setting. In addition, I developed this project based on the results obtained from the follow-up session and a review of the site's knowledge base for falls precaution among elderly patients in the acute care center.

I encountered challenges throughout this process. For example, I had resistance from staff adapting to the changes being implemented. However, I was able to overcome the resistance by having team building during unit-based meetings to help improve and strengthen the relationship with staff through interaction. The communication helped in encouraging staff to give feedback regarding the fall prevention interventions, which helped in getting buy-in toward enhancing the knowledge on fall prevention (Amer,

2019). Regardless of these challenges, I found the project implementation to be a worthwhile professional endeavor. My goal was to ensure that the staff would benefit from the education session and be able to improve patients' outcomes.

Summary

Across the world inpatient falls among elderly patient are still the number one adverse event in the acute care setting (Melin, 2018). Falls among elderly patients decrease the quality of life and have led to an increase in health care use costs (Steven & Lee, 2018). To address this issue, I developed staff education on using the MFS assessment as a fall risk screening tool. The goal of this project was to educate staff on the use of a screening tool to recognize patients at risk and to implement strategies to improve falls. My objective in doing this project was to demonstrate improvement in the comprehensive approach used by nursing staff to prevent and manage falls among elderly patients in the inpatient acute care settings. The project initiated in the cardiac unit was aligned with American Medical Directors Association guidelines.

This project was successful in improving and heightening the nursing staff knowledge on the necessity of fall risk precautions and use of the screening tool. As mentioned earlier in the section, I faced challenges in gaining nurse participants' willingness, but overcame this barrier through a strategic action plan. Involvement of nursing staff was the key factor in achieving project outcomes, specifically the increase in knowledge by participants. I am confident that implementation of the educational program in other facilities can be successful with the involvement of nursing staff. Ongoing education is essential in sustaining the success of this project.

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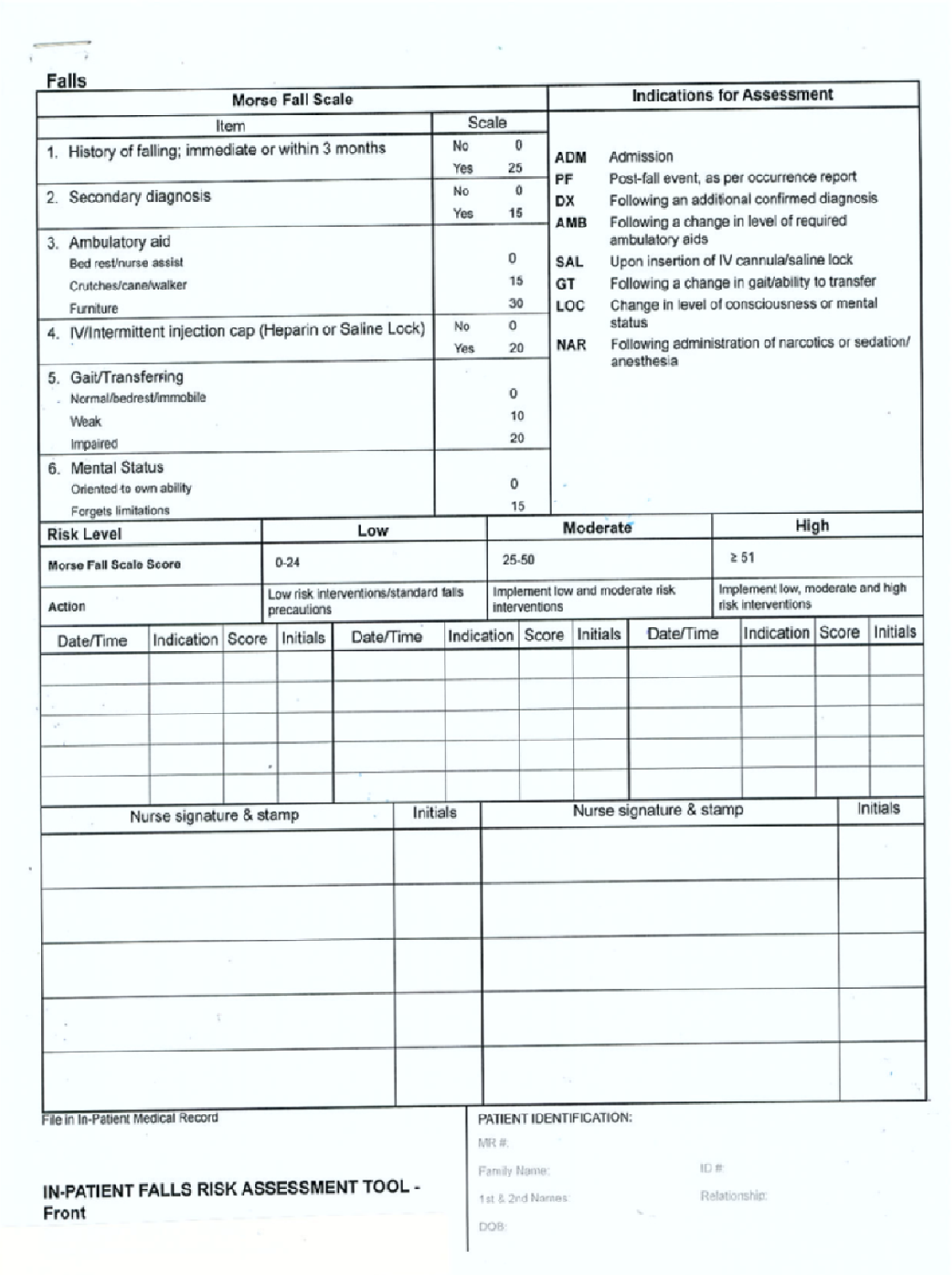
Appendix A: Morse Falls Scale



Falls

Morse Fall Scale		
Item	Scale	
1. History of falling; immediate or within 3 months	No	0
	Yes	25
2. Secondary diagnosis	No	0
	Yes	15
3. Ambulatory aid		
Bed rest/nurse assist		0
Crutches/cane/walker		15
Furniture		30
4. IV/Intermittent injection cap (Heparin or Saline Lock)	No	0
	Yes	20
5. Gait/Transferring		
Normal/bedrest/immobile		0
Weak		10
Impaired		20
6. Mental Status		
Oriented to own ability		0
Forgets limitations		15

Indications for Assessment	
ADM	Admission
PF	Post-fall event, as per occurrence report
DX	Following an additional confirmed diagnosis
AMB	Following a change in level of required ambulatory aids
SAL	Upon insertion of IV cannula/saline lock
GT	Following a change in gait/ability to transfer
LOC	Change in level of consciousness or mental status
NAR	Following administration of narcotics or sedation/ anesthesia

Risk Level	Low	Moderate	High
Morse Fall Scale Score	0-24	25-50	≥ 51
Action	Low risk interventions/standard falls precautions	Implement low and moderate risk interventions	Implement low, moderate and high risk interventions

Date/Time	Indication	Score	Initials	Date/Time	Indication	Score	Initials	Date/Time	Indication	Score	Initials

Nurse signature & stamp	Initials	Nurse signature & stamp	Initials

File in In-Patient Medical Record

IN-PATIENT FALLS RISK ASSESSMENT TOOL - Front

PATIENT IDENTIFICATION:

MR #:

Family Name: ID #:

1st & 2nd Names: Relationship:

DOB:

Appendix B: AHRQ Tool 2E

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.

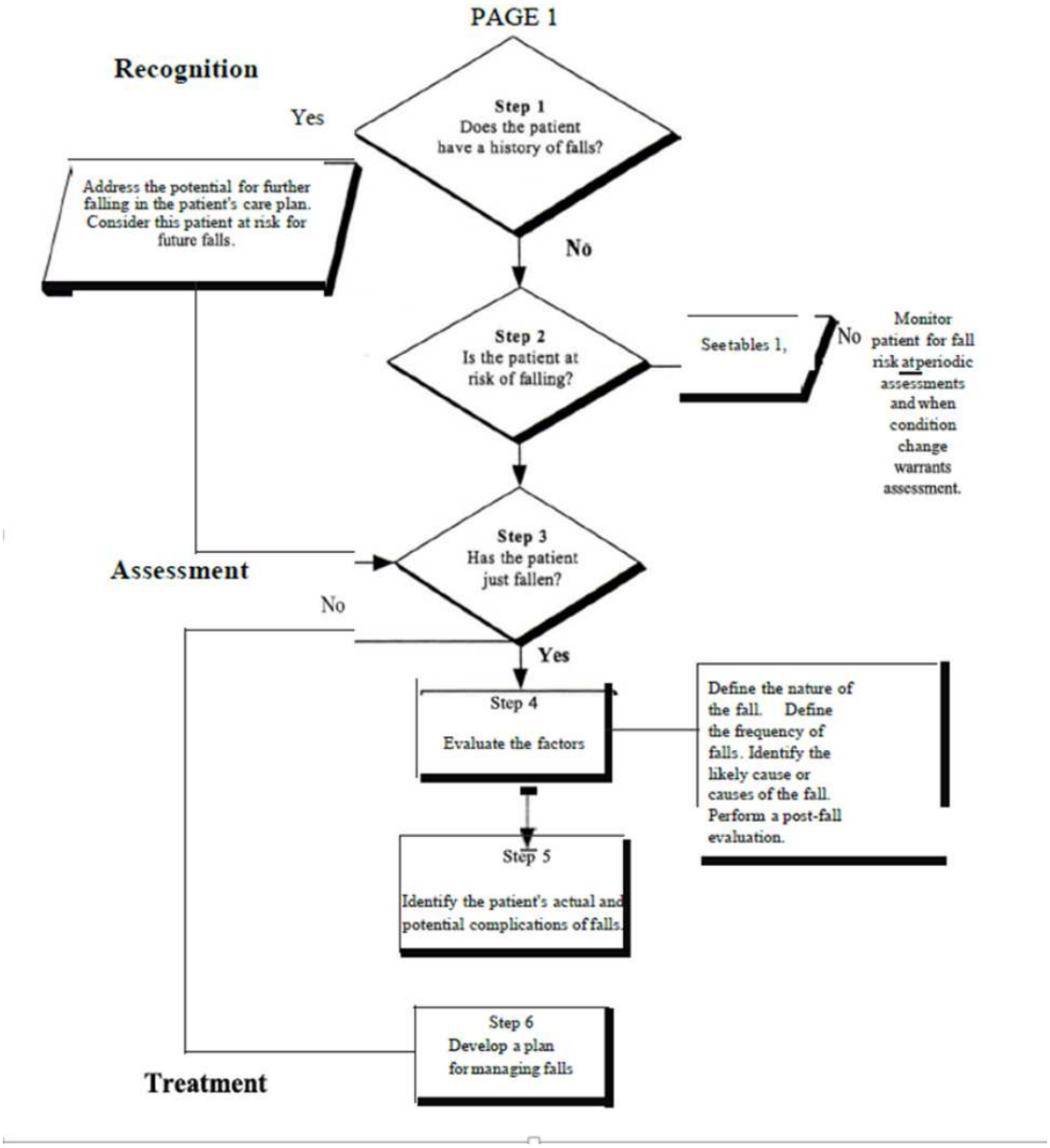
13. Which of the following is recommended to improve patient safety?
    a. Locking wheeled furniture when it is stationary.
    b. Having nonslip flooring.
    c. Placing frequently used items (including call bell, telephone, and remote control) within reach of the patient
    d. Rounding hourly to 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

Note. Adapted from Singapore Ministry of Health Nursing Clinical Practice Guidelines on Prevention of Falls in Hospitals and Long-Term Care Institutions and subsequent version by Dr. Serena Koh. Original may be found at www.moh.gov.sg/content/dam/moh_web/HPP/Nurses/cpg_nursing/2005/prevention_of_falls_in_hosp_ltc_institutiions.pdf.

Appendix C: American Medical Directors Association Clinical Guidelines



Appendix D: Fall Prevention Tip Sheet

Fall Prevention Tip Sheet

- Keep the bed brakes locked
- Place patient at a low position at all times
- Keep Floor and surface clean and dry
- Keep equipment out of patients' pathway and reducing tripping hazards
- Toileting regime and offer assistance
- Keep yellow arm band and yellow non-skid socks on patient
- Have call bell within patients reach

"Let's work as a team to promote patients' safety and prevent falls."

Appendix E: Fall Prevention Power Point Presentation

Utilizing Risk Assessment Tool in Managing Elderly Adults

Kasturi Ramasamy
JHAH

CONTENTS

- Significance of falls
- Fall Prevention Guidelines
- Morse Falls Scale (MFS)

DEFINITION OF FALL

Fall as defined by WHO refers to an event which results in a person coming to rest inadvertently on the ground or floor or other lower level.

World Health Organization. WHO Global Report on Falls Prevention in Older Age. Geneva: WHO; 2007

CONSEQUENCES OF FALLS

Reduce in:-
- Daily ADL
- Physical and Social Activity
- Independence

Emotional status:-
- Depression
- Helplessness
- Isolation

Acute and Chronic Conditions of Falls Risk

- Cardiac
- Stroke
- Parkinson's
- Dementia/Delirium
- Incontinence
- Previous History of fall

Why do People Fall?

- Environment
- Medication – e.g. diuretic/antipsychotic drug
- Dizziness/Vertigo
- Unsteady Gait
- Incontinence
- Poor vision

Risk Factors for Falls

- Medication – Sedative/Anti HTN/Anti-psychotic/Diuretics
- Poor nutrition
- Poor lighting
- Slippery Surface
- Unsupervised activities

Why should I do a Fall Risk Assessment?

- Allows implementation of appropriate interventions and a follow-up plan
- Notifies all pertinent health care staff of risk
- Highlights risk concerns for each patient
- Reduces potential of serious harm
- Standardizes the process of risk identification

GOAL: To prevent additional harm to patients while they are in the hospital.

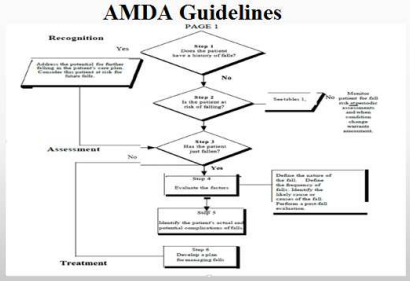
- Hundreds of thousands of patients fall in hospitals every year and in the United States: 30-50 % resulting in injury.
- Injured patients require additional treatment with prolonged hospital stays(approx. 6.3 days more to stay in hospital).
- Cost for a fall with injury : $14,000 per hospital stay.
- Serious Fall-related Injuries: fractures, subdural hematomas, Excessive bleeding, DEATH

Steps to Follow

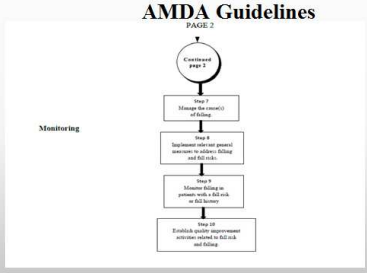
Five-Step Process to Prevent / Reduce Falls

Step One Identify risk factors for a fall
Step Two Identify individual risk
Step Three Implement interventions appropriate to assessed risk;
Step Four Reassess patients with significant change in condition or fall
Step Five Manage and report falls (includes actions to take following a fall - post falls

AMDA Guidelines



AMDA Guidelines



Morse Fall Scale (MFS)

How often to do a Fall Risk Assessment?

- Initial fall risk on admission
- Reassess with patient condition or medication change
- At shift change and during hourly rounds

Complete the Fall Risk Assessment. What next?

- Develop individualized fall prevention plans for each patient

IMPLEMENTATION

Low Risk (Standard Falls Precautions)

Patient Teaching: (teaching/leaflets given shall be documented using *MED-4000 Multidisciplinary Patient Teaching Record)*

- ❖Orient to surroundings, call bell and falls risk
- ❖Medication information – caution for ambulation following sedation/analgesia
- ❖Call for assistance with ambulation, as appropriate
- ❖Use rubber-soled shoes or non-slip footwear to prevent slipping
- ❖Secure call bell, phone and bed table within reach
- ❖Ensure clothing does not interfere with mobility and ensure patient uses non-skid footwear for ambulation.

IMPLEMENTATION

Low Risk (Standard Falls Precautions)

- ❖Ensure patients use their prescribed eye glasses, if any, in the hospital
- ❖Place footwear and ambulation aids within reach
- ❖Monitor environment for clutter, spills or other hazards
- ❖Keep bathroom light on, floors dry
- ❖Use raised toilet seat or stool in the shower as necessary
- ❖Maintain bed in the lowest position, ensure wheels locked on bed/chairs
- ❖Use chairs with arm rests
- ❖Monitor for change in falls risk
- ❖Hourly Rounds

Moderate Risk

***Apply all Low Risk interventions, and*:**

- ❖Identify as falls risk on medical record and signage at bedside
- ❖Assist and/or supervise ambulation. Reinforce to **always** call for assistance.
- ❖Evaluate for reversible causes
- ❖Monitor for orthostatic hypotension (lying/sitting/standing BP)
- ❖Ensure adequate hydration
- ❖Monitor blood sugars, as assessed
- ❖Move patient closer to nursing station, leave door open, as available
- ❖Add round the clock lighting, such as the nightlight within the room
- ❖Hourly safety checks

Moderate Risk

***Apply all Low Risk interventions, and*:**

- ❖Regular pain assessment, provide lowest effective dose of analgesia
- ❖Frequently assess elimination while awake
- ❖Establish toileting schedule, bladder and bowel
- ❖Use nutritional supplements, laxatives as necessary
- ❖Raise upper side rails, as appropriate
- ❖Patient Teaching for Family and Watchers, documenting all teaching / leaflets given
- ❖Orient to falls prevention program
- ❖Call for assistance with ambulation, or when patient attempts to climb out of bed/chair
- ❖Do not lower side rails if put up by nurse
- ❖Notify nurse if leaving patient
- ❖Assess patient after visitors leave to ensure safety measures in place
- ❖Hourly Rounds

High Risk

***Apply all Low and Moderate Risk interventions, and*:**

- ❖Apply a *Fall Risk* yellow wrist band and a yellow Falls Risk sign at each patient's bedside.
- ❖As appropriate, consider raising both upper and lower side rails and apply gap protectors such as a pillows between patient and side rails to prevent entrapment, harm or fall
- ❖Healthcare providers collaboratively review medication regime
- ❖Consult physical therapy for gait and/or strengthening exercises when indicated
- ❖Initiate constant observation (by healthcare provider), as appropriate to patient need

Special Considerations for High Risk Falls Patients

- ID Bracelet/Sticker on chart
- Bed alarms
- Toileting round /Hourly rounds
- Work along side with PT's
- Manage medications
- Change behavior
- Proper Nutrition
- Keep patient closer to nursing station
- Educate patient and family

Learning Tips

- Complete fall risk assessment
- Know risk factors
- Initiate a care plan for each patient
- Reassess patient's fall risk when indicated
- Engage patients and families in assessment and prevention
- Include patient risk and care plan with your colleagues
- Perform post huddle strategy

Falls Prevention is for Everybody.

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4. Barker, W. (2014). Assessment and prevention of falls in older people. Nursing Older People, 26(6), 18-24. doi:10.7748/nop.26.6.18. e586