HOURLY ROUNDING AND FALL PREVENTION: A CHANGE PROCESS

By

Carine Sanyi

ROSEMARY HAGGINS, DHA, MSN, RN, Faculty Mentor and Chair

CHRISTINA GARCIA, PhD, MSN, RN, Faculty Mentor and Chair

CAROLYN MORRISEY, PhD, DNP, DHA, Committee Member

Patrick Robinson, PhD, Dean, School of Nursing and Health Sciences

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Abstract

Falls are among the most common and serious problems facing older adult patients living in nursing homes. The focus of this project was to implement an hourly rounding fall prevention protocol in a nursing home that provides care for older Military veteran patients. The purpose was to answer the following question: In veteran patients aged 65 years or older and living in a nursing home unit, how does implementing an hourly rounding fall prevention program compared to current traditional fall prevention programs affect fall occurrences within a six-week implementation period? The impetus of the project was that all three skilled-care units in the nursing home were experiencing high fall rates with adverse effects. The method of study involved a pilot study in a 34-bed unit and the implementation of the 3B: Scheduled Rounding Protocol adapted from the AHRQ toolkit. The "plan, do, study, act" model was integrated as a quality improvement process to test for change. A limitation of this study involves the use of a toolkit designed for hospital settings adopted in a nursing home setting, and a small sample size. Findings of this study indicated a reduced fall rate of 1.9 per 1,000 patient beds, and lower fall rates than in previous months. Competency evaluations indicated staff gained adequate knowledge in preventing falls. Application of evidence-based practice is fueled by the increasing public and professional demand for accountability in safety and quality improvement in health care settings.

Key words: hourly rounding, older adult falls, fall prevention and hourly rounding, preventing falls in older adult patients, identifying fall risk factors in older adult patients, PDSA model in quality improvement.

Hourly Rounding and Fall Prevention: A Change Process

Nursing homes become an option for older adults who require moderate to extensive assistance with activities of daily living, thereby improving quality of life by maintaining a safe environment. Preventing falls and injuries among older adult patients can be challenging because of predisposing conditions such as functional decline, muscle weakness, sensory problems, cognitive impairments, medication usage, and other functional and physiologic changes. Assessing the risk for falls and implementing proactive strategies to prevent falls is the direct responsibility of the nursing staff who provide care to these patients.

The implementation of an evidence-based structured hourly rounding program allows nursing staff to attend to the immediate and personal needs of patients, and ensures universal fall precautions are in place. Hourly rounding as a fall prevention strategy improves patient safety and patient satisfaction by providing a proactive approach to organizing nursing, whereby staff engage patients by checking on their pain, position, potty (elimination), and proximity of possessions (4 Ps). During hourly rounding, the nurse orients the older adult patient to the patient's environment; keeps commonly used items and the call light within reach; ensures the bed is at its lowest position or appropriate level for the patient; keeps the patient's environment uncluttered; confirms appropriate footwear is accessible and in use; keeps eyeglasses and hearing aids clean and on the patient's person; provides mobility aid such as canes, walkers, and wheelchairs; ensures proper lighting; and provides for patient-specific toileting needs.

A structured fall prevention program creates staff awareness on the abilities and behaviors of older adult patients, as well as reduces the risks in older adult patients' environment. Evidence-based fall prevention programs such as structured hourly rounding are effective in reducing falls (Fabry, 2015). The collection of data about older adult patients in their environment, assessment of risk factors, and development of an individualized plan of care will be part of that program. Hourly rounding provides a structured means of promoting patient-centered safety interventions and fosters communication in a health care setting between staff and patients for improved outcomes. Patient safety and quality of care

are a priority in health organizations, and are essential in keeping with state and federal regulations. Nurse leaders must have adequate knowledge of change and its implications before planning to introduce a new practice (Fabry, 2015). Establishing and maintaining a safe environment for preventing falls means creating awareness about the residents' surroundings, ensuring effective communication between team members, reporting and sharing ideas about falls, and using nursing judgment and critical thinking to anticipate the possibility of a fall.

The goal of implementing this change process was achieved by integrating elements of the PDSA Model (plan, do, study, act) and the fall prevention toolkit adopted from the Agency for Healthcare Research and Quality (AHRQ, 2013). The PDSA model represents continuous quality improvement on patient care processes through effective team and communication skills. The PDSA model involves a cyclical, scientific approach used for action-oriented learning in testing a change by planning it, trying it, observing the results, and acting on what is learned (AHRQ, 2013). Leadership support was reflected in an interdisciplinary team approach that was established to plan the change process, determined the availability of resources, implemented the change, and reviewed changes that would occur after implementation.

Problem Description

Falls are among the most common and serious problems facing older adult patients living in nursing homes. The frequency of falls and fall-related injuries continues to rise as members of the baby boomer generation age. More than 30% of adults in the United States who are 65 years of age or older fall each year, and older people with dementia experience eight times more falls than those without dementia, with 70–80% of older patients with dementia experiencing a fall per year (DeVol, 2013). Falls are associated with increased mortality and morbidity, reduced functioning, and premature nursing home admissions from the community. The elder population poses a higher risk of falls related to physical and functional disabilities, traumatic brain injuries, posttraumatic stress disorder, a predominantly male population, and the presence of impulsive

behaviors.

The focus of this project was to implement an hourly rounding protocol in a nursing home that provides care for older adult veteran patients. On the nursing care units, there is currently no structured fall prevention protocol that ensures universal fall precautions are implemented and that patient safety needs are met. The facility lacks a fall prevention committee to assess the current fall prevention program, identify the need for a process change, and implement an evidence-based change practice. The current fall prevention program is not incorporated into the patients' routine activities and care, resulting in a lack of accountability among nursing staff to follow through with adherence to fall prevention care plans. Reducing falls in nursing homes requires a workforce that is knowledgeable about fall prevention strategies; protecting patients from harm due to falls is a health priority and the responsibility of the health care workforce, especially when delivering care to older adults residing in nursing homes (Gray-Miceli, de Cordova, Crane, Quigley, & Ratcliffe, 2015).

Based on monthly fall audits and statistics from quality assurance, a veterans' home in the Midwest state is experiencing high rates of falls and fall-related injuries, resulting in a negative impact on clinical outcomes. All three skilled nursing care units in the facility have reported experiencing an increase in falls and fall-related injuries over the years, with a monthly average of approximately 67 incidences of falls, and with injuries ranging from minor skin tears to fractures. According to data from performance management, the fall rate in the pilot 34-bed unit (21-1) for the month of January 2017 was 11.1 falls per 1,000 occupied bed days, which is a rate on par with that of the other skilled care units in the facility. The current fall prevention program involves identifying patients at risk for falls through a fall risk assessment tool (Fall Risk Assessment MVH V01), and developing a fall intervention plan of care based on the results. A post fall assessment is completed after a fall occurs, and a new intervention is implemented to prevent recurrence of that type of fall.

The problem with this traditional approach is the lack of a structured, proactive, and patient-specific intervention for preventing falls and related injuries. A patient-specific intervention involves active participation of direct caregivers. Most falls result from lack of a well-defined process that is structured to the needs of the patient. A structured fall prevention program will create staff awareness on the abilities and behaviors of older adult patients, as well as reduce the risks in older adult patients' environment. Fall risk prevention involves several factors, requiring an individualized and collaborative effort, with interventions aimed at preventing falls and injuries (Hill & Fauerbach, 2014).

The significance in implementing an hourly rounding protocol involves creating a health care environment at the Veterans Home that will allow for reduced falls and fall-related injuries, compared to current rates, and a process change through best practices and evidence-based knowledge. The highest quality of care and best patient outcomes are achieved through an organizational culture that is supportive, and a problem-solving approach that integrates best evidence from research and patient data (Gallagher-Ford, 2011). It is therefore important to consider the responsibility of health care professionals in ensuring the safest environment possible for older patients.

Available Knowledge

A comprehensive, systematic literature review was conducted on the effectiveness of hourly rounding in identifying risk factors among older adult patients and the effect of hourly rounding on reducing falls and fall-related injuries. Databases searched to conduct the exhaustive systematic literature review included the following: Cumulative Index to Nursing and Allied Health Literature (CINAHL), ProQuest Central, Academic Search Premier, Cochrane Library, and OVID. Also, the Google search engine was used to retrieve evidence-based studies, and a search was conducted using the American Nurses Association website to retrieve peer-reviewed

and evidence-based articles.

Keyword and key phrase searches included: *hourly rounding*, *rounding*, *hourly rounding and fall prevention*, *falls*, *older adult falls*, *fall prevention*, *nursing home falls*, *fall risk factors*, *older adult patients*, *reducing falls*, *older adult care*, *PDSA model*, *PDSA model and fall prevention*, *quality improvement*, and *fall prevention.* Results to searches conducted using these keywords and key phrases provided a generalized context of ideas and broader knowledge of the topic. Keywords and phrases were then paired to winnow the search to main concepts of the project, and included: *hourly rounding and older adult falls*, *hourly rounding to reduce falls*, *hourly rounding and fall risk factors*, *hourly rounding and older adult patients*, *fall prevention and hourly rounding*, *preventing falls in older adult patients*, *reducing falls and hourly rounding*, *identifying fall risk factors in older adult patients*, and *PDSA model in quality improvement*. These searches resulted to a total of 5,208 matches, with the majority of items not relevant to the project, as well as several redundant studies. A more specific search was conducted using key concepts that supported the purpose of the project. A total of 120 articles were retrieved pertaining to hourly rounding, preventing falls by older adult patients, and the efficacy of hourly rounding in identifying potential risk factors. Searches conducted through CINAHL database produced more favorable results that supported key ideas of the project. Through a systematic process of review, studies were critically appraised for relevance, reliability, validity, level of evidence, credibility, method used to conduct the study, strengths and weaknesses, and the primary objective.

Of the 120 articles retrieved from the CINAHL database, 42 articles met criteria of inclusion and directly correlated to the development and implementation of the project in providing evidence-based knowledge on hourly rounding to nursing staff, and reducing fall rates

of older adult veteran patients. A more selective inclusion criterion was applied, based on most

recent year of publication after 2012, setting and sampling of study, and education outcome,

which yielded 22 studies. Exclusion criteria included lack of valid data to support hourly

rounding, patient population less than 50 years of age, studies with bias and opinions, studies

with no relevant statistics of reducing falls, and low level of evidence.

Rounding is the process of intentionally checking on patients at regular intervals to meet

their needs proactively. Hourly rounding is an important action nurses can take to improve

patient safety and reduce falls by as much as 50% in hospitals (Hicks, 2015). Hourly rounding is

an autonomous intervention that helps nurses keep patients safe by proactively meeting their

needs. For hourly rounding to be successful, nursing staff must be properly educated on the

benefits of the process and method of implementation. The main components of hourly rounds

include reducing anxiety, addressing the 4 Ps (pain, potty, position, possessions), assessing the

patient's environment for safety issues, and telling the patient when staff will return. Hicks

(2015) conducted an integrative review of 14 independent studies in which hourly rounding as a

tool in fall prevention in acute care was the focus. Although all study interventions reviewed by

Hicks (2015) included rounding, the type of rounding varied. Rounding varied by schedule, the

type of person performing the rounds, and the use of a prepared script or plan. Hourly rounding

was found to decrease falls, improved patient experience, and increased staff satisfaction.

Individual studies also supported the use of hourly rounding. For example, Brosey and

March (2015) implemented a standardized hourly rounding process and monitored outcomes.

The three-month study was conducted in a 24-bed medical surgical unit and involved conducting

structured hourly rounds. Results of Brosey and March's study revealed falls decreased from

7.02 to 3.18 per 1,000 patient days. Ciccu-Moore et al. (2014) study involved the delivery of

proactive care in the form of hourly rounding to decrease patient falls in a 29-bed acute hospital.

In this study, implementing the use of a one-year care and comfort checklist and the 3 Ps resulted

in a 39% decrease in falls during the study period. DuPree, Fritz-Campiz, and Musheno (2014)

conducted a 10-month study of hourly rounding with the objective of achieving a 25% decrease

in falls on 12 units in eight hospitals. Results indicated the number of falls was reduced from

4.001 to 2.613 per 1,000 patient days. Fischer et al. (2014) implemented hourly rounding and

found a decrease in falls on a unit that had failed to meet its fall target. The study was conducted

in a 34-bed orthopedic medical-surgical unit for a period of eight quarters. Rounding included

using the 4 Ps, and number of falls decreased from 5.42 to 3.94 per 1,000 patient days ($p = 0.04$).

Falls and fall injuries are the most common adverse event among older adult patients

residing in nursing homes. Although all falls cannot be prevented, individualized interventions

can be put in place to reduce the occurrence of falls and seriousness of injury resulting from falls.

Nurses play a key role in participating in fall prevention programs, assessing fall risk factors, and

developing safety interventions that are patient-centered. Hourly rounding has been

demonstrated to improve patient safety, quality of care, patient satisfaction score, significantly

decrease the number of patient falls, reduce call light volume, and improve staff satisfaction with

their work environment (Fabry, 2015). Nursing leaders have the responsibility for preventing

falls through application of evidence-based knowledge. A purposeful rounding is performed by

registered nurses and other patient care assistants who round on even or odd hours to meet

specific needs of patients (Fabry, 2015). To gain knowledge of a nursing staff's perspective and

perceptions of hourly rounding in an acute care hospital setting, Fabry (2015) conducted a

descriptive survey analysis of registered nurses and patient care assistants' responses to hourly

rounding using Rogers's theory of diffusion of innovation. Of the 52 registered nurses surveyed,

25% reported feeling a sense of ownership for hourly rounding initiative and 21.3% agreed that

completion of an hourly rounding paper documentation tool was a genuine indication that

rounding was done. This research represents ways in which nursing leadership can prepare, lead,

sustain, and initiate an evidence-based practice such as hourly rounding (Fabry, 2015).

Health of the population can be improved when scientific evidence through systematic

reviews are made available to influence policy makers' decisions (Melnyk & Fineout-Overholt,

2014). The falls management program is an interdisciplinary quality improvement initiative

developed by the AHRQ (2014). It is designed to assist staff of nursing facilities in providing

individualized, person-centered care, and improving their fall care processes and outcomes

through educational and quality improvement tools. Based on reviews by the AHRQ, many

nursing facilities have in place fall programs that need improvement. Not all falls and injuries

can be prevented, but it is critical to have a systematic process of assessment, intervention, and

monitoring of results to minimize the risk of falls and resulting injury. This review illustrates

that falls among nursing home residents are usually the consequence of a combination of risk

factors, both intrinsic and extrinsic. The implementation of an hourly rounding program through

a TeamSTEPPS approach provides a systematic process of assessing and identifying fall risk

factors and preventing the occurrence of falls within the older adult patient population.

Fall reduction programs involve developing a culture of safety that might require

adjustment to staff attitudes, beliefs, and behaviors, as well as changes in management style.

This change process calls for strong leadership, effective communication, new policy

development, and the formation of multidisciplinary teams to address areas for improvement.

Hourly rounding is an approach to advance nursing quality outcomes and a mechanism for open

communication between patients and their health care teams in preventing falls and related

injuries. Nurses have the responsibility to assess all patients to prevent the occurrence of falls by older adult patients and collect sufficient data to gauge the effectiveness of the fall prevention protocols in use. A focus on the identification of environmental factors is important because these factors are often more easily and efficiently addressed by nursing staff and an interdisciplinary fall prevention team. A structured and planned rounding program includes factors such as increased nursing time that contributes to better health outcomes, and improved levels of patient and nurse satisfaction of care provision (Harrington et al., 2013). Improved levels of care are attributed to the role of the nurse in reducing incidence of falls, better pain management, and increased patient satisfaction. Adequate surveillance and supervision is important in preventing falls by older adult patients. Health care organizations have focused on designing patient rooms to accommodate privacy and allow for staff surveillance to prevent falls. Hourly rounding enforces surveillance of vulnerable patients, especially those patients at high risk for falls. Anticipating and addressing the needs of patients decreases the likelihood of self-transferring without assistance, self-ambulating, unsupervised toileting, and patients taking other risks to meet their daily needs. Although many facilities continue to face challenges with inadequate staffing and work overload, increasing the presence of nursing staff in the units reduces falls and improves patient satisfaction. Nurses often experience a higher number of call lights during break hours and shift exchange, with an increase in falls due to less rounding.

Rounding that is intentional involves performing regular checks to anticipate and provide care rather than responding to a patient's call (Forde-Johnston, 2014; Harrington et al., 2013). Information and data obtained during rounding can be used as an assessment tool to develop and update individualized care plans that include patient-specific fall intervention strategies. Forde-Johnston (2014) examined nine studies on intentional rounding related to patient care and

outcomes, findings of which indicated an improvement in clinical outcomes. Improved clinical

outcomes included reductions in patient falls, call light use, and complaints, as well as increased

satisfaction. There was a 36% decrease in the monthly average of patient falls in a UK hospital

within a month of implementation of intentional rounding (Braide, 2013; Forde-Johnston, 2014).

Future studies are needed to determine if these studies are applicable to different patient groups

and settings.

Implementation of hospital-focused safety interventions in nursing homes and the care of

older adult patients will lead to an improvement in key quality measures such as fall prevention,

pressure ulcer reduction, patient satisfaction, and reductions in errors. While the concept of

hourly rounding is common in hospitals, rounding in nursing homes occurs less frequently—on

average, every two hours—and is attributed to staff shortages and higher workloads. Olrich,

Kalman, and Nigolian (2012) replicated a study on the effect of hourly rounding on fall rates,

call light usage, and patient satisfaction in an inpatient medical-surgical patient population.

Actions during hourly rounding included the nursing staff entering the patient's room, the

nursing staff introducing themselves and explaining the process, conducting pain assessment

using a pain scale, offering toileting assistance to the patient, performing environmental checks,

checking for positioning, and advising the patient about when the next rounding would occur.

In the context of nursing homes, special factors to be considered include the mental and

cognitive abilities of older adult patients to comprehend what offers of assistance are being

presented, as well as their safety and judgmental awareness. Fall rates before implementation of

hourly rounding were 3.37 per 1,000 patient days; these rates decreased to 2.6 per 1,000 patient

days after implementation of hourly rounding (Olrich et al., 2012). Although there was an

overall decrease in fall rates, there was an increase in fall rates in the control unit during the

implementation period. According to Olrich et al. (2012), a successful outcome of hourly

rounding requires the presence of staff champions to ensure the process is consistent on all shifts,

data are presented in a timely manner as positive reinforcement, and related training on rounding

protocols.

       Cognitive abilities and mental status of older adult patients relating to the aging process

and other factors predispose this population to a greater risk for falls. Fischer et al. (2014),

performed a secondary analysis of baseline and prospective data from older adults enrolled in the

intervention arm of a randomized clinical trial consisting of 254 community-dwelling older

adults. Cognition was assessed with the Short Portable Mental Status Questionnaire (SPMSQ).

Using interview and in-home assessment data, physical therapists determined whether clinical

trial participants were at risk for falls when performing mobility-related activities of daily living

(ADL) and instrumental ADL (IADL). Fischer et al. (2014), concluded that declining cognition

is associated with unsafe performance of mobility activities, which increases the risk for falls by

this population. Through the evidence-based practice of hourly rounding, these risk factors can

be identified and an interdisciplinary team can work together to develop individualized care

plans that meet the specific needs of patients. These measures can have a positive impact on

morbidity and mortality associated with falls and improve the quality of life for patients.

       Healey and Darowski (2012) examined the prevention of falls through effective

assessments and interventions. More than 250,000 falls are reported by hospitals in the United

Kingdom each year, predominantly harming older adult patients whose vulnerability to falling

arises from a complex interaction of risk factors, including impaired mobility, dementia,

delirium, medication, and the effects of long-term and acute illness. Systematic review of

research trials indicated that multifactorial assessment and intervention to treat, modify, or better

manage these underlying risk factors can reduce falls by 20–30%. Therefore, organizational

processes should incorporate evidence-based fall prevention programs such as hourly rounding

for quality improvement. Although trials were conducted in hospital settings, these risk factors

are shared by nursing home patients, making findings of Healy and Darowski's study

transferrable to nursing home settings.

Developing a successful fall prevention program requires that the program be adapted to

the individual risks of older adult patients and include improvements in caregiving skills and

motivation of nursing staff. A successful outcome of hourly rounding will depend on

collaboration and cooperation of an interdisciplinary team in identifying potential risk factors

and team members' timely response to the 4 Ps. Evidence indicates that improving teamwork

through the integration of standard evidence-based practice (EBP) tools is most efficient in

reducing preventable falls, and successful fall prevention strategies include staff education about

fall-injury risk assessment tools, hourly rounding, and offering toileting frequently (Godlock,

2016; Tzeng, Titler, Ronis, & Yin, 2012). Nursing leaders have the responsibility for preventing

falls through EBP knowledge and developing safety interventions that are patient-centered.

Hourly rounding has been proven to improve patient safety, quality of care, patient satisfaction

scores, and satisfaction of staff with their work environment, as well as significantly decrease the

number of patient falls and call light volume (Fabry, 2015). Although not all falls can be

prevented, individualized interventions can be implemented to reduce their occurrence and the

seriousness of resulting injury.

Extrinsic factors that contribute to elderly falls are often related to the environment and

proximity of possessions. During hourly rounding, the nursing team assesses the patients'

environment for poor lighting conditions, bed and chair heights, room clutter, presence of rugs

and smooth surfaces, condition of shoes, and position of the call light. Modifying older adult

patients' environmental conditions can dramatically minimize risks, thereby reducing falls,

promoting health, and preventing diseases (Alves et al., 2016). Assessing fall risk factors can be

helpful in developing preventive measures for keeping older adult patients safe in their

environment. Most older adult patient falls are attributed to weakness/balance and gait disorders,

environment-related factors, reduced vision, and medication use (Alves et al., 2016). Nurses

play an important role in an intervention plan because they encounter patients at every level of

care throughout the continuum. Fearing change and reluctance to adopt new processes, the

nursing team might be skeptical of implementing EBP actions into practice. Staff education

prior to implementing evidence-based hourly rounding is important for alleviating these fears.

Successful implementation of an evidence-based hourly rounding fall prevention program

will depend on the effectiveness of staff education and program awareness. There is a need for a

multifactorial approach in fall prevention and developing patient-centered plans of care that are

specific to individual patients' needs. DeVol (2013) described the development of a

multidisciplinary fall management program designed for individuals with dementia and a history

of falls who resided in an assisted living facility. The program required collaboration among

facility staff to reduce the number of falls, accomplished through monthly intervention meetings,

staff education in-services, and the introduction of numerous individual care plan modifications

to properly manage intrinsic and extrinsic factors that were contributing to patient falls. A

critical component of the multidisciplinary approach was consistent focus on the monthly fall

management meetings involving the facility team and home health agency. The outcome of this

program was a decrease in fall frequency through a coordinated effort using staff members to

increase resident activity level, modify living environment, and increase instances and duration

of direct supervision, as well as improving the use of proper cueing and transfer techniques by facility staff.

Hourly rounding is becoming increasingly popular in hospitals, not only in the United States, but also in other countries. This commonality underscores the importance of preventing falls by older adult patients and integrating fall prevention programs into other health care settings. Hutchings, Ward, and Bloodworth (2013) developed an hourly rounding fall prevention program, combined with training to help staff understand what they need to do and why to enable them to commit to—and not simply comply with—the initiative. This initiative involved leadership rounding and provided staff with a better understanding of implementing the 4 Ps during hourly rounding. Braide (2013) implemented a different approach to hourly rounding by adopting a documentation-focused stance, supported by leadership rounding, coaching and feedback, and creating the foundation for change in the units.

Hourly rounding is an approach to preventive care in which the nurse leader anticipates an adverse effect and implements measures that prevent that adverse effect or event from occurring. Structured rounding by nurses is a promising intervention for reducing patient falls and increasing patient and staff satisfaction (Tucker, Bieber, Attlesey-Pries, Olson, & Dierkhising, 2012). Although structured rounding is a possible solution to potential problems, the approach raises concerns about disturbance to patients' sleep and meals, as well as barriers involving the extra time needed for this mechanism of care and disruption to charge nurse duties (Tucker et al., 2012). A structured rounding program in an orthopedic unit suggested an improvement in reducing fall risks, particular given the large difference observed over time for a rare event. However, the one-year follow-up assessment findings indicated a drift back toward baseline rates, suggesting a failure of the nursing team to sustain the change in practice (Tucker

et al., 2012). Ensuring sustainability in practice change requires an ongoing education plan, frequent audits, and stimulation sessions. Despite the importance of hourly rounding in patient safety and improved quality of care, barriers to adoption need to be explored before implementation. Staff communication before and after implementation of an EBP change has potentials for successful outcomes (Odias, 2015).

Evidence guidelines for preventing falls emphasize the need for a team effort and multidisciplinary approach. A fall prevention program should include combinations of strong leadership and support, a culture of safety, frontline staff who are engaged in program design, staff education and training, and changes in staff attitudes toward fall prevention (Goldsack, Meredith, Mascioli, & Cunningham, 2015). Change within an organization requires the transition of individuals, processes, and the entire system to achieve the designed outcomes. A process improvement plan requires team building, creating a vision, communicating with multidisciplinary teams, taking actions, and maintaining the change. Goldsack et al. (2015), found a significant decrease in the fall rate when an interdisciplinary team was involved in implementing a patient-centered hourly rounding program. In the same study, the absence of an engaging team had no impact on the fall rate. According to Reimer and Herbener (2014), various rounding strategies are related to qualitative and quantitative outcomes, and by standardizing rounding structures and processes throughout a health care setting, staff and patient expectations can be reinforced. Studies conducted at a magnet hospital in Ohio indicated that standardization is a key component in the hourly rounding process, and specific actions in patient rounds can reduce the frequency of patients' call-light use, increase patients' satisfaction with nursing care, and reduce falls (Reimer & Herbener, 2014).

A systematic approach and collaboration of an inter-professional team and stakeholders is essential in the integration of an EBP change to improve patient outcomes. Bohnenkamp, Pelton, Rishel, and Kurtin (2014) implemented the PDSA quality improvement model to provide an effective structure for measuring sequential compression device compliance in a high-risk oncology surgical unit. Through this approach, the team was able to effectively identify the clinical problem, review the literature, and disseminate findings to team members and stakeholders in the planning and implementation of interventions. This study provided evidence that the PDSA approach can be integrated into a process change plan with the support of an interprofessional team. Preventing falls in the older adult patient population will require EBP changes that target behaviors of frontline nursing staff and motivation to make the change occur.

Evidence indicated that the aging veteran population and other older adult patients are at risk for falls and fall-related injuries in their homes, hospitals, or in long-term care facilities. Therefore, nurses have the responsibility to systematically assess their risks for falls and implement individualized-based prevention interventions. Incorporating fall risk assessment interventions in an hourly rounding program through an interprofessional approach has been proven effective in preventing falls in the older adult population.

Rationale

The framework used for this project was the PDSA model (see Figure 1). This model has been used by members of health care organizations to test for change, and as a quality improvement process. The PDSA is based on a scientific method with assumptions that not all factors are initially known, and therefore cycles of change should be repeated and evaluated to achieve desired goals (AHRQ, 2013). The objective of the project was to reduce falls and related injuries to veteran older patients that were already assessed and identified with risks for falls. The project assumptions include the support of nursing leadership and management for an EBP change process, and the use of a toolkit adopted from the AHRQ

(2013) in preventing older veteran patients from falling. Other assumptions in this project include participants willing to participate in the training and implementation process, a reduction in fall rates in the pilot unit will lead to a larger scale implementation of the protocol and integration with the current fall prevention program, and patients' receptiveness to the process and adaptation to hourly checks. Study variables included staffing challenges and inadequate nursing staff for training, the presence of an acute health condition and its effects to falls, changes in medication regimens and predisposition to falls, improper implementation of the protocol by nursing staff, and staff resistance to change and unwillingness to test a new process. Beginning with the *do* stage, the cycle for this project involved these steps:

1. Plan—planning to test on the change involving team formation and meeting, as well as staff training;

2. Do—the carrying out of a small-scale test of planned action. The Do step involved implementing the scheduled hourly rounding protocol in the 34-bed pilot unit;

3. Study—collection of data and examination of results. Data and statistics of fall rates before implementation were compared to fall rates after implementation to assess changes relative to expected outcomes:

4. Act—the team acted on the outcome of the test and planned for full-scale implementation or a repeat of the process.

Testing change on a small scale is beneficial to staff and the quality improvement process because this approach mitigates costs and waste of resources, allows for early and effective change through feedback, improves staff acceptance and input in the implementation process, and focuses the team on changing a clinical practice (Nicholas, Farley, Vaiana, & Cretin, 2001). An objective assessment of the problem of concern and staff input in the change process are effective components of a plan for reducing fall occurrences and potentials for injury. According

to Steelman, Schaapveld, Perkhounkova, Storm, and Mathias (2015), a pilot study should take

place before a change in practice is implemented. A pilot study entails multiple steps such as

selection of desired outcomes, collection of baseline data, design of evidence-based guidelines,

and the modification of practice guidelines (Steelman et al., 2015).

Team formation involved engaging members from different disciplines with adequate knowledge about

falls and awareness of the need for change. A systematic approach and collaboration of an inter-

professional team and stakeholders is essential in the integration of EBP to improve patient outcomes.

Bohnenkamp et al. (2014) implemented the PDSA quality improvement model to provide an effective

structure for measuring sequential compression device compliance in a high-risk oncology surgical unit.

Through this approach, the team could effectively identify the clinical problem, review the literature, and

disseminate findings to team members and stakeholders in the planning and implementation of

interventions. This study provided evidence that the PDSA approach can be integrated into a process

change plan with the support of an inter-professional team. Preventing falls in the older adult patient

population will require EBPs that target behaviors of frontline nursing staff and motivation to make the
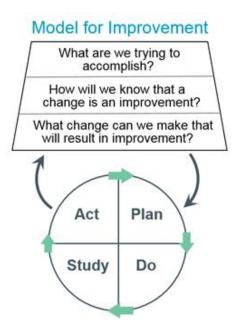
change occur.

Figure 1. PDSA model for quality improvement.

Specific Aims

The aim of this project was to determine if integrating components of the PDSA model into the fall prevention toolkit adopted by AHRQ (2013) was effective in reducing falls and related injuries in older adult veteran patients living in a nursing home. The 3B: Scheduled Rounding Protocol from the AHRQ toolkit for preventing falls in hospitals was adapted with components of the fall risk assessment, supplemented with the 4 Ps (pain, position, potty, and proximity of possession). The protocol was implemented by nursing assistants, staff nurses, unit supervisors, and nurse managers every hour during the day (0600-2200), and every two hours during the night (2200-0600). Patient safety and quality of care are a priority in health organizations, and are in keeping with state and federal regulations. Nurse leaders must have adequate knowledge of change and its implications before planning to introduce a new practice (Fabry, 2015).

The development of EBP is fueled by the increasing public and professional demand for accountability in safety and quality improvement in health care (Stevens, 2013). Evidence-Based Practice ensures that nursing professionals provide quality care to individuals based on evidence from research studies. Application of EBP allows for the public to be more informed about health care issues and to assist in making their own health care decisions based on clinical research studies. The use of research in clinical nursing practice has evolved in response to greater insight and knowledge of clinical problems. Inclusion of EBP in delivery of care has led to improved treatments of chronic illness, increased quality and cost-effective care, health promotion, disease prevention, and management of symptoms. Trends in health care have a direct impact on nursing, and providing EBP is a trend that strengthens the delivery of safe and effective health care (Pierce, 2005).

Methods

Context

The setting of the pilot project was a 34-bed skilled care unit in which nurses provide care for older adult veteran patients, the majority of whom are 50 years of age or older. This unit is considered home to most of these veterans who are challenged to overcome physical, functional, and emotional disabilities. Falls are the most reported events experienced by this population, along with the resulting adverse consequences such as bruises, wounds, fractures, and fatalities. Patients in this unit require around-the-clock care and supervision by nursing staff to ensure their daily health care and safety needs are met. Nursing staff providing direct care to these patients includes registered nurses, licensed practical nurses, and nursing assistants, also known as human service technicians.

The target population was nursing staff providing direct care to elder patients in a 34-bed pilot unit. The group included four registered nurses (RN), 10 licensed practical nurses (LPN), and 16 nursing assistants (CNA/HST). There were 10 education sessions, each lasting 20 minutes. Education sessions were provided for all three shifts (days, evenings, and nights) during routine huddles (see Table 1).

Table 1. *Demographics**

Participants (*N = 30*)	RN (*N = 4*)	LPN (*N = 10*)	HST (*N = 16*)
Years worked in current role by job title			
0–4	2 (50%)	5 (50%)	6 (37.5%)
5–10	0 (0%)	5 (50%)	8 (50%)
≥ 11	2 (50%)	0 (0%)	2 (12.5%)
Shift worked			
Day: 0630–1500	2 (50%)	4 (40%)	8 (50%)
Evening: 1430–2300	2 (50%)	4 (40%)	6 (37.5%)
Night: 2230–0700	0 (25%)	2 (20%)	2 (12.5%)
Work status			
Full time	4 (100%)	8 (80%)	14 (87.5%)
Part time	0 (0%)	2 (20%)	2 (22.5%)

Float	0 (0%)	0 (0%)	0 (0%)
Number of hours of work/week			
16–32	0 (0%)	2 (20%)	0 (0%)
32–40	4 (100%)	8 (80%)	16 (100%)
Highest education level			
High school	N/A	N/A	14 (87.5%)
Some college	N/A	10 (100%)	2 (12.5%)
Associate's degree	2 (50%)	0 (0%)	0 (0%)
Bachelor's degree	2 (50%)	0 (0%)	0 (0%)
Master's degree	0 (0%)	0 (0%)	0 (0%)

Several internal and external factors were considered during implementation of the hourly rounding protocol. Internal factors included the presence of an acute health condition and its potential impact on falls, changes in medication regimens and predisposition to falls, improper implementation of the protocol by nursing staff, staff resistance to change, and unwillingness to test a new process. External factors included nurse shortages and inadequate staffing on the weekends and at the organizational level of management. Nursing leadership and administration who were supportive of the process concurred that a reduction in fall rates in the pilot unit would lead to a larger scale implementation of the protocol and integration with the current fall prevention program.

The implementation team collaborated with the unit team to implement the hourly rounding protocol at the frontline of care. Members of the implementation team included the quality director at the agency and facility level, the assistant director of nursing, education specialist, nurse practitioner, and unit manager. The unit team included unit champions (nurse supervisors), nursing staff, and nursing assistants (human service technicians). The project lead communicated matters of implementation progress to the implementation team, the unit champion, and the unit team. Evidence guidelines for preventing falls underscore the need for a team effort and multidisciplinary approach. A fall prevention program should include combinations of strong leadership and support, a culture of safety, frontline staff who are engaged

in program design, staff education and training, and changes in staff attitudes toward fall prevention (Goldsack et al., 2015).

Clinical (unit team) and nonclinical staff at the frontline of patient care were educated by the project leader prior to implementation of the hourly rounding protocol. Education sessions occurred during routine huddle meetings and in the first week of implementation. Nursing staff on all three shifts (days, evenings, and nights) participated in the education sessions. The unit champion served as a liaison between the implementation team and the unit team, and oversaw other duties such as off-hours staff education to ensure compliance in implementation and providing staff with educational tools (e.g., handouts).

Education included handouts provided to staff, as well as demonstrations and references to keep them engaged and excited about the program. Posters were placed in the nursing unit and staff areas as reminders and to create staff awareness of a new process. Nursing staff received training on scheduled rounding protocol and items that would be checked during implementation. Education sessions were followed by competency evaluation through a questionnaire to test for understanding, to obtain feedback, and for suggestions for future changes.

Intervention(s)

A pilot program was implemented on structured hourly rounding for older veteran adult patients residing in a long-term-care skilled nursing unit. Implementation of this intervention was achieved by integrating elements of the PDSA model into the fall prevention toolkit adopted by the AHRQ (2013). The 3B: Scheduled Rounding Protocol (AHRQ, 2013) was adapted to meet patients' specific care needs and address the components of fall risk factor assessments. Research data indicate that falls among older adult patients cause adverse consequences and might be preventable. Hourly rounding has demonstrated improvements in patient safety, quality

of care, patient satisfaction scores, and staff satisfaction with their work environment, as well as decreased patient falls and call-light volume (Deitrick et al., 2011; Fabry, 2015; Ford, 2010; Gardner et al., 2009; Halm, 2009; Leighty, 2006; Meade et al., 2006; StuderGroup, 2007).

Practice recommendations for implementing the 3B fall prevention protocol involved an effective interdisciplinary team, collaboration of nursing staff, staff motivation, teamwork, and dedication to the change process. Promoting patient safety is enhanced by embracing evidence-based practices and applying those practices to meet patient care needs. Open communication and feedbacks throughout the implementation phase enhanced the learning process and encouraged the sharing of suggestions for better outcomes. Adequate education time of the unit staff equipped them in implementing the hourly rounding protocol, and to support a culture of safety and reduce the risk for falls. Clinical nurses serve as champions in nursing units, and they are responsible for educating staff and implementing EBP strategies (Godlock, 2016).

The hourly rounding protocol was integrated with each patient's fall prevention interventions and care activities. There were no changes made to patients' daily routines and activities; however, nursing staff were expected to check on patients and complete protocol items. As a team lead for the project, this learner was responsible in educating staff on the hourly rounding protocol, and providing education materials. This learner also provided participants with protocol guidelines, and tools for documentation on a weekly basis. Nursing assistants were responsible for checking on the patient and performing the protocol. Nurses checked for completion of documentation at the end of every shift, and placed the documentation from each shift in binders for future review by the implementation team. The 3B: Scheduled Rounding Protocol allowed nursing staff to proactively implement universal fall precautions while meeting the needs of patients. Upon entering the patient's room, the nursing assistant informed the

patient about the patient's routine scheduled rounding. The nursing assistant then checked for

the 4 Ps, as well as confirmed fall interventions were in place based on that patient's fall risk

assessments. A documentation log (see Table 2) was used each time rounding was performed for

compliance and reliability of data. The nursing assistant ensured the patient was safe before

leaving the room and reminded the patient a nursing assistant would be back in an hour for the

next check, but that the patient could use the call light to summon assistance at any time.

Table 2. *Rounding Documentation Log**

Shift		Mon Tue Wed Thurs Fri Sat Sun					Group	
Unit		**Indicate "Y" for Yes if no intervention needed** **Indicate "N" for No if intervention is needed**					Department	
Time	Pain	Position	Potty	Proximity of Possession	Staff Initials	Interventions		
0600								
0700								
0800								
0900								
1000								
1100								
1200								
1300								
1400								
1500								
1600								
1700								
1800								
1900								
2000								
2100								
2200								

Every 2
hours for
Night Shift
2400
0200
0400

Inclusion criteria were all nursing staff regardless of gender or age, employed a minimum of one year at the time of data collection, and willingness to participate in the study. Study participants included nursing staff working a minimum of 16 hours per week in the sample unit. Exclusion criteria were staff members unwilling to participate in the project, employed less than one year, and nursing floats. Considerations were focused on nursing staff with adequate knowledge of safety protocols and understanding of patients' daily routines.

Study of the Intervention(s)

The fall prevention project involved efforts to reduce fall rates among the older patients by developing a culture of safety that required adjustment to staff attitudes, beliefs, and behaviors, as well as changes in patient care approach. This change process required strong leadership, effective communication, policy review, and a multidisciplinary team approach. The planned intervention was an EBP change process that involved the formation of a fall prevention team and implementation of an hourly rounding evidence-based protocol to reduce current fall rates in a pilot unit. The intervention of reducing falls was assessed by the use of a run chart to compare fall rates before and after implementing the hourly rounding protocol.

To determine the effectiveness of the intervention, and organizational readiness to the change process, a competency evaluation (internally developed tool) was conducted after the implementation phase. This tool was aimed at determining nursing staff's attitude towards fall prevention and using the 3B protocol in clinical practice. Nursing staff were evaluated on their

understanding of the hourly rounding protocol, and the importance of assessing patients by using

the 4 P's to proactively meet their needs and prevent falls. A total of 30 participants responded to

the competency evaluation, and responses ranged from "strongly disagree" to "strongly agree."

In this intervention, feedback obtained from nursing staff competency evaluations forms

indicated a clear understanding of the importance of hourly rounding to prevent older patients'

falls. All 30 participants reported they agreed or strongly agreed that the education provided as

part of the intervention included evidence that hourly rounding decreases patient falls.

Participants related responses had similar perceptions of the idea that hourly rounding would

prevent their patients from falling by identifying their needs of pain, potty (elimination),

positioning, and proximity of possession (see Table 3).

Table 3. *Competency Evaluation on Hourly Rounding Implementation**

Understanding the importance of hourly rounding and fall prevention	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
The education provided evidence that hourly rounding decreases patient falls.	0	0	0	20	10
The hourly rounding documentation tool can be completed and implemented effectively.	0	0	0	15	15
Hourly rounding will prevent my patient from falling through better management of pain.	0	0	0	5	25
Hourly rounding will prevent my patient from falling by identifying the need for toileting.	0	0	0	7	23
Hourly rounding will prevent my patient from falling by ensuring all possessions are within patient's proximity.	0	0	0	10	20
Hourly rounding will prevent my patient from falling by ensuring proper positioning.	0	0	0	8	22
Hourly rounding will make my patient safer through proactive care.	0	0	0	28	2

I recommend implementing hourly rounding at the Veterans Home.	0	0	0	22	8

*Note. * Numbers represent feedback from 30 participants.*

Leadership is an important aspect of a health care environment. Leaders are charged with promoting a culture of safety and risk management. Nurse leaders hold roles and have the clinical experience, expertise, and knowledge to manage fall prevention programs and outcomes; they lead the organization to embrace high performance and change. This project demonstrated leadership qualities through identification of a problem, advancement of an interdisciplinary team approach, promotion of change through EBP, training and education, and evaluation of data. Transformational leadership occurs when all stakeholders work together to achieve a common goal and maintain a culture of safety. Transformational leadership was accomplished through the formation of a fall prevention team and the implementation of an hourly rounding program that puts in place a systematic process involving the use of a valid and reliable tool to enhance quality management. Implementing best practices such as the hourly rounding program requires leadership in roles and responsibilities, management of the change process, communication between interdisciplinary teams, and education of clinical staff. Quality improvement involves a systematic, data-guided activities designed to bring about immediate improvement in health care delivery settings defined by intervention aimed at reducing the quality gap for patients (Hughes, 2008).

Measures

The most important outcome that was measured from implementation of an hourly rounding fall prevention program was the reduction in fall rates and fall-related injuries compared with previous rates. Measures included for data analysis included the use of fall audit reports from the electronic medical record as the primary source of data. Data included the nature

of fall, location of the fall, injury incurred, and whether the fall was witnessed. The fall audit

report allows fall statistics to be organized by nursing unit to facilitate comparisons on

performance. A census report was generated from the electronic record in the Point Click system,

which provided data on the number of occupied bed days. Fall data are generated from fall

incident reports completed by nursing staff when falls occur. These data are then processed by

quality and health information management personnel and stored in an I-drive in the Intranet

system of the facility. Data on the I-drive are accessible by nursing leadership team only. This

measure of data collection by one group, data processing by another group, and data access and

analysis by a third group ensures data reliability and validity.

The outcome of reducing falls and fall-related injuries was measured by comparing the

fall rate before and after implementation of the hourly rounding program. According to the

AHRQ (2013), a best measure for confirming a reduction in fall rates involves a comparison of

fall rates over time within a unit to determine improvement, and calculated per 1,000 bed days.

For purposes of the project, a *fall* was defined as an event in which a resident is found on the

floor, whether or not an injury resulted; a resident lost his or her balance and would have fallen if

not for staff intervention; and the distance from which the resident falls to the floor is not used to

define whether or not a fall occurred (Centers for Medicare and Medicaid Services, 2012; Hill et

al., 2011). The process of calculating the fall rate, as recommended by AHRQ, involved

counting the number of falls that occurred in the pilot unit within a month, as logged into the

incident reporting system, then adding up the number of occupied bed days for that month,

dividing the number of falls by the number of occupied bed days, and finally multiplying the

result by 1,000 (number of patient falls in a month/occupied bed days x 1,000). Monthly fall

rates were examined for any change or improvement after implementing the hourly rounding program, and a run chart used to visually observe trends in the fall rate.

Nursing staff providing direct care to these older adult veteran patients at risk for falls gained evidence-based knowledge, as well as an understanding of the benefits and implications of hourly rounding. The implementation team collaborated with the unit team to implement the hourly rounding protocol at the frontline of care. Members of the implementation team included the quality director at the agency and facility level, assistant director of nursing, education specialist, nurse practitioner, unit manager, and infection control supervisor. The unit team included the unit champions (nurse supervisors), nursing staff, and nursing assistants (human service technicians). The 3B: Scheduled Rounding Protocol (AHRQ, 2013) was used to integrate the 4 Ps in hourly rounding with fall prevention activities and patient care. A documentation log and checklist were adapted from this tool. During the implementation phase of the project, the nursing staff and nursing assistants were instructed to use the tools to record their rounds. This outcome was then measured through a questionnaire to assess nurses' understanding of the process and their ability to implement the protocol successfully. After implementation, unit change champions supported and empowered nursing staff to adapt to new ways in fall prevention. High quality and safe care were achieved through evidence-based knowledge founded on careful planning and the use of a systematic approach.

According to Fabry (2015), "Participating in decision making and planning of new initiatives will increase the likelihood of adoption of new evidence-based practices" (p. 209). Providing nursing staff with new knowledge creates an opportunity for their voices to be heard relative to the safe delivery of care. A reduction in fall rates resulting from the implementation of an EBP initiative has a positive effect on patient satisfaction, patient-centered care, and

efficiency of the fall prevention process. A cost savings benefit is achieved through a reduction in recurrent hospitalizations from fall injuries, litigations, and complications that might result from falls.

Analysis

Descriptive statistics were used to determine fall rates, and evaluation of staff's understanding of the intervention and readiness to change. Fall data are generated from fall incident reports completed by nursing staff when falls occur. These data are then processed by quality and health information management personnel and stored in an I-drive in the Intranet system of the facility. Quantitative data from fall audit reports were placed in a sectional distributed table, and according to the month the fall occurred. Data was then reported by the time range of the fall (shift of fall), the number of falls during each time range, the unit the fall occurred, and the total number falls during the month.

The monthly fall rate before and after implementation was obtained by counting the number of falls that occurred in the pilot unit during the months prior, as entered into the incident reporting system, then adding up the number of occupied bed days for that month, dividing the number of falls by the number of occupied bed days, and finally multiplying the result by 1,000 (Number of patient falls in a month/Occupied bed days x 1,000). Results before and after implementation were then compared and analyzed for change. The Agency of Healthcare Research and Quality (AHRQ, 2013) recommend fall rates be calculated monthly based on the information from incident reports and daily census because of the opportunities to provide staff with information about their improvements.

Microsoft excel was used to enter data obtained into excel spread sheets. This allowed for visual analysis of fall rates on a monthly basis, including fall trends and patterns. No resident

identifiers were included in fall audit reports. The competency evaluation was provided to all 30

participants, and collected post completion. Counts were made for those who "strongly

disagreed" to those who "strongly agreed." Data obtained provided a quantitative measure of

readiness to organizational change, and the importance of implementing the hourly rounding

protocol in preventing older veterans from falling.

Ethical Considerations

Ethical considerations in this project included respecting patients' rights and dignity

during the implementation phase. No patient identifiers were included in the project. Patients'

routines and care needs were not significantly altered throughout implementation. Rounding

protocol was integrated into the daily plan of care of patients. Nursing staff participated in the

study only during regular scheduled working hours. Staff participation was voluntarily, without

risk of bias or threat of punitive actions. Capella University's Institutional Review Board (IRB)

reviewed the project and determined that no further review or oversight was needed.

<div align="center">

Results

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Reports were retrieved from the fall audit reporting system to evaluate number of falls

and fall rate after the six-week implementation period in the 34-bed pilot unit. Modifications

were made for rounding to involve only those patients who posed a high risk of falls, and

according to the fall risk assessment tool. Hourly rounding was then focused on four patients

who had experienced frequent falls in the six months preceding the implementation period,

identified as patients at high risk of falling, and sustained moderate to severe injuries with falls.

These patients were selected from different neighborhood groups to ensure nursing assistants

were responsible for only for one patient during their shift. These measures were beneficial to

nursing staff's compliance with the change process and meeting the outcome of reducing falls

and related injuries. This DNP learner was a key facilitator for this project, by ensuring nursing

staff received adequate training on the protocol and effectively complete the documentation log.

The registered nurse supervisors directed and monitored the program during the weekends and

administrative-off days.

The first week of implementation was focused on staff education about hourly rounding

protocols and effectiveness of the education in creating awareness towards patient falls.

Handouts and documentation logs were presented to nursing staff during scheduled education

sessions, and the 3B: Scheduled Rounding Protocol (AHRQ, 2013) was reviewed with all 30

participants. A key barrier in meeting a more desired outcome was attributed to the use of float

nursing staff in the pilot unit who had not been trained on the rounding protocol, and completion

of the documentation log. Initially, 42 participants were anticipated, but the group size was

reduced to 30 participants due to inadequate staffing and the number of nursing staff who did not

meet the criteria for inclusion. In the next 4 weeks of August, participants performed the hourly

rounding protocol on selected patients and incorporated the protocol in their daily routines.

During this period, there were two falls, including one fall per week on the nursing unit. The

number of occupied bed days obtained from the census report in the electronic medical record

for the month of August was 1026. The monthly fall rate was calculated (Number of patient falls

in a month/Occupied bed days x 1,000) to be 1.9 per 1,000 bed days. The fall rate was

determined to be lower than previous fall rates in the pilot unit, and no significant injuries

resulted from either of the two falls (see Figure 2). All four patients who were determined to be

at high risk for falls expressed improved satisfaction with care and safety, and verbalized that

during hourly rounding, they were certain that nursing staff attended to their immediate needs.

Despite the successful outcome, some data were not recorded in the documentation logs, some

participants failed to hand over documentation logs to the next shift, and some float staff were
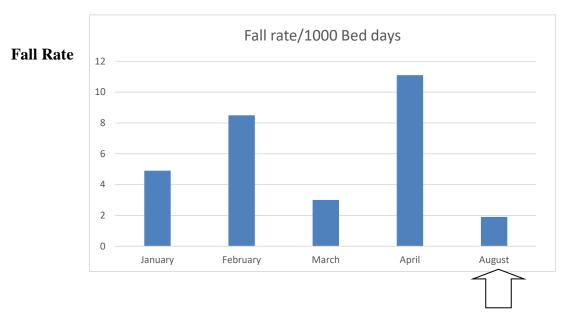
assigned to participating patient groups.

Fall Rate

Figure 2. Graph of Fall Rates and Months. This figure demonstrates fall rates before
implementation (January, February, March, and April) and a fall rate after implementation
(August). Significant decrease in fall rate in August (1.9 falls per 1000 bed days) following
hourly rounding implementation.

The outcome of this project confirmed the literature reviews of reduced fall rates with the

implementation of hourly rounding protocols from an evidence-based toolkit. The

implementation of the 3B: Scheduled Rounding Protocol adopted from the AHRQ (2013) toolkit

for preventing falls in hospitals, was effective in keeping patients safe, and reducing risk for

falls. Adapting the 4 Ps (pain, position, potty, and proximity of possessions) in the rounding

protocol provided a structured process of proactively meeting the needs of older veteran patients.

Researchers from the University of Iowa created the Nursing Intervention Classification to

define the spectrum of interventions embodying the professional practice of nursing (Halm,

2009). This classification included activities performed during rounding and the interventions that promoted comfort and safety. Fall prevention was included in this classification and indicated needs for positioning, elimination, proximity to possessions, and instituted special precautions for patients at risk of falling or sustaining injury. Evidence suggest making hourly rounding provided nurses a monitoring tool to keep patients safe by proactively meeting patients' needs. In a study conducted in 14 hospitals and 27 units, researchers reported a reduction of falls by 52% as a result of implementing structured hourly rounding using the 4 Ps of pain, positioning, potty, and proximity of possessions (Halm, 2009; Meade et al., 2006). Units with already low fall rates and high patient satisfaction might not achieve the same dramatic reduction in number of falls as a result of implementing hourly rounding (Halm, 2009; Meade et al., 2006); hourly rounding is most effective in settings experiencing high fall rates where standardized interventions have not proven optimally effective.

This project demonstrated an improvement in performance that involved strategic change in behaviors and practices of caregivers, and in guidance of nursing leadership. Quality improvement calls for the utilization of advanced knowledge in making clinical decisions and organizational change to ensure safe and quality care. Quality improvement programs bring about changes in the culture and practices of an organization to improve patient focus. The U.S. Department of Health and Human Services (HRSA, 2011) emphasized the need for assessing leadership support of quality, staff engagement in the quality process, and the ability of an organization to manage change and create a program that may evolve over time.

Discussion

Summary

This project was successful in reducing falls and related injuries in the 34-bed pilot unit. The fall rate during the implementation phase was 1.9 per 1,000 bed days—the lowest rate in the previous five months. Nursing staff morale in implementing the hourly rounding protocol was high, indicating nursing staff were receptive to the protocol, and a change in attitude toward keeping patients safe in their environment was evident. The use of the hourly rounding protocol allowed nursing staff to proactively meet the needs of patients identified as at high risk for falls before a fall could occur. Providing staff education prior to implementation created awareness on the importance and significance of a fall prevention program that focuses on changing the behaviors of direct care. The hourly rounding protocol allowed nursing staff to follow care plan interventions consistently because of the presence of a structured program that bears accountability. Evidence indicates that lower fall rates have resulted in positive clinical outcomes, increase patient satisfaction, reduced cost of care, and fewer complications from injuries. This project outcome will be reviewed by the Quality Assurance Performance Improvement (QAPI) committee for inclusion into the fall prevention policy and procedures agency-wide. Other consideration includes the formation of a fall prevention team that meets routinely to review falls and conduct root cause analysis. Reduced fall rates resulted from incorporating a multidisciplinary team approach, staff education, effective communication, and the use of interventions specific to the residents' needs.

Interpretation

The 3B: Scheduled Rounding Protocol adopted from the AHRQ (2013) toolkit for preventing falls in hospitals was effective in reducing falls when adapted with components of the fall risk assessment and supplemented with the 4 Ps (pain, position, potty, and proximity of possession). Studies have indicated positive outcomes in reducing falls when the hourly

rounding protocol was used in hospitals and other acute care settings. Implementing the 3B: Scheduled Rounding Protocol in a nursing home setting had a similar effect in fall reduction as in hospitals. The two falls that occurred during implementation of the protocol involved residents already identified as being at high risk for falls. Those falls occurred during the night shift, and mostly related to an acute condition. Hourly rounding was effective in identifying fall risk factors, which included environmental factors, physical and functional limitations of the patient, medication use, and health status.

This protocol allowed the staff nurse to explain the process to the patient upon entering the patient's room, perform the protocol, and assure the patient that nursing staff would be back in an hour. Hourly rounding provides a structured means of promoting patient-centered safety interventions and fosters communication in a health care setting between staff and patients for improved outcomes. Patient safety and quality of care are a priority in health organizations, and are in keeping with state and federal regulations. Staff education was vital in this project because nurse leaders must have adequate knowledge of change and its implications before planning to introduce a new practice. There were no changes made to participating staff schedules, hours of work, or daily patient routines. Staff education sessions were scheduled during routine daily huddles, and nursing staff groups were maintained.

Limitations

The project limitations relate to the reliability and validity in adopting a tool for preventing falls in hospitals into a nursing home setting. The toolkit included nursing practices and staffing structures that were generalized to hospital settings. For example, in a hospital

setting, the nursing staff were responsible for performing the rounding protocol including

assessment for pain, as well as other duties within their scope of practice. In the nursing home

setting, nursing assistants were responsible in performing the rounding protocol, and notifying

the nurse when the task was not within their scope of practice. Other limitations in this project

included classifying falls that occurred during off-unit activities, and falls related to sudden and

acute conditions. The rounding protocol was limited to the days and evening shifts, and a 2-hour

check during the night shifts. Most falls occur during the night shift, which was the limitation in

using the hourly protocol because, during the night shift, hourly rounding was extended to 2-hour

checks. The documentation log was not always filled out completely, and information provided

not always valid and reliable. Selection for nursing staff participation was based on a set

criterion, and was conducted without bias. Fearing change and the adoption of new processes,

the nursing team was skeptical of implementing evidence into practice. Staff education prior to

implementing evidence-based hourly rounding was important for alleviating these fears. The

competency assessment tool was an internally developed tool that had not been tested.

Conclusions

This project was successful in applying evidence in practice with an improved outcome

in reducing falls and related injuries in a nursing home providing care for older veteran patients.

Further studies should include a larger-sample size, and expanding knowledge gained to state-

wide agencies and other long term care facilities. Although hourly rounding protocols are mostly

implemented in hospital settings, this project clearly indicated positive outcomes when used in a

nursing home. Future recommendations should focus on evaluating incorporating information

obtained from documentation logs during hourly rounding into patients fall prevention care

plans. Performing hourly rounding provides direct care givers with a better understanding about

their patient's daily routines, living patterns, and preferences through a frequent monitoring

system. Hourly rounding should not be an isolated intervention but incorporated with other risk

assessment tools and fall prevention strategies.

The call for improved quality of care and health care transformation has led to the

utilization of advanced knowledge in clinical decisions and research-based evidence in practice.

The use of research in clinical nursing practice has evolved in response to greater insight and

knowledge of clinical problems. Inclusion of EBP in delivery of care has led to improved

treatments of chronic illness, increased quality and cost-effective care, health promotion, disease

prevention, and management of symptoms. Trends in health care have a direct impact on

nursing, and providing EBP is a trend that strengthens the delivery of safe and effective health

care (Pierce, 2005). The nurse leader has the professional responsibility to promote the use of

evidence-based knowledge and improved clinical skills for preventing falls and related injuries

among older adult patients.

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APPENDIX A.

STATEMENT OF ORIGINAL WORK. ACADEMY HONESTY POLICY

Capella University's Academic Honesty Policy (3.01.01) holds learners accountable for the integrity of work they submit, which includes but is not limited to discussion postings, assignments, comprehensive exams, and the dissertation or capstone project.

Established in the Policy are the expectations for original work, rationale for the policy, definition of terms that pertain to academic honesty and original work, and disciplinary consequences of academic dishonesty. Also stated in the Policy is the expectation that learners will follow APA rules for citing another person's ideas or works.

The following standards for original work and definition of *plagiarism* are discussed in the Policy:

> Learners are expected to be the sole authors of their work and to acknowledge the authorship of others' work through proper citation and reference. Use of another person's ideas, including another learner's, without proper reference or citation constitutes plagiarism and academic dishonesty and is prohibited conduct. (p. 1)

> Plagiarism is one example of academic dishonesty. Plagiarism is presenting someone else's ideas or work as your own. Plagiarism also includes copying verbatim or rephrasing ideas without properly acknowledging the source by author, date, and publication medium. (p. 2)

Capella University's Research Misconduct Policy (3.03.06) holds learners accountable for research integrity. What constitutes research misconduct is discussed in the Policy:

> Research misconduct includes but is not limited to falsification, fabrication, plagiarism, misappropriation, or other practices that seriously deviate from those that are commonly accepted within the academic community for proposing, conducting, or reviewing research, or in reporting research results. (p. 1)

Learners failing to abide by these policies are subject to consequences, including but not limited to dismissal or revocation of the degree.

Statement of Original Work and Signature

I have read, understood, and abided by Capella University's Academic Honesty Policy (3.01.01) and Research Misconduct Policy (3.03.06), including the Policy Statements, Rationale, and Definitions.

I attest that this dissertation or capstone project is my own work. Where I have used the ideas or words of others, I have paraphrased, summarized, or used direct quotes following the guidelines set forth in the APA *Publication Manual*.

Learner name and date	Carine Sanyi, 3/21/2018
Mentor name and school	Dr. Christina Garcia, Capella University