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Reducing Falls in a Definitive Observation Unit

An Evidence-Based Practice Institute Consortium Project

Felipe Gutierrez, RN, MSN, FNP; Kevin Smith, RN

Fall prevention poses a major challenge to healthcare personnel. Fall prone patients must be accurately identified and staff must adhere to evidence-based practices that have distinct value for preventing falls. This article describes a Definitive Observation Unit (DOU) and its evidence-based fall-prevention protocol based on nationally recognized standards. Despite the adoption of the protocol, fall occurrence rates remained above California Nursing Outcomes Coalition benchmarks. There were variations among nurses, physicians and physical therapists in regard to the value of fall prevention program components such as pre-formatted orders, physical therapy referrals and documentation.

This authors report results of a study using an evidence-based practice (EBP) framework for evaluating an interdisciplinary, multifactorial fall prevention protocol. Results indicated that staff champions and resources are essential elements for changing practices that are vital to fall reduction.
Key words: *evidence-based practice*, *fall prevention*, *inpatient*, *nursing*, *patient safety*, *performance improvement*, *risk assessment*

PROBLEM

Scripps Mercy Hospital Definitive Observation Unit (DOU) serves cardiac and high-acuity medical surgical patients in a telemetry setting. The acuity of this setting provides a very challenging nursing assignment.[1] Although nationally accredited fall prevention assessment tools and interventions are utilized, the fall rates have continued to exceed the California Nursing Outcomes Coalition (CalNOC) benchmark for hospitals similar in size. In the past, the experience with other CalNOC benchmark problem areas, such as restraints and pressure ulcers, has been brought to the forefront, and fall rates have successfully been decreased below CalNOC averages.

On a unit where nationally recognized nursing standards are embraced, why does minimizing the occurrence rate of falls elude a diligent nursing staff? It is interesting to note that hospital fall prevention protocols are a multidisciplinary function involving doctors, pharmacists, physical therapists (PTs), occupational therapists (OTs), and nurses.[2] Since nurses are the coordinators of care, fall protocols are universally nursing centered and reflect on the quality of nursing care provided by the hospital. In this project, physicians were surveyed about why they felt patient falls occurred and what interventions would best prevent falls. Preformatted orders that physicians sign when a patient is at high risk for falling were used, yet it was not known whether the nurses or physicians valued them. PT referrals and PT note entries regarding evaluation of patients were also being questioned. The current policy dictated that a

Author Affiliation: *Scripps Mercy Hospital, San Diego, California.*

Corresponding Author: *Felipe Gutierrez, RN, MSN, FNP, Scripps Mercy Hospital, 4077 Fifth Ave, San Diego, CA 92103 (Gutierrez.Felipe@scrippshealth.org).*

PT referral be made for all patients at high risk for fall, and the question arose whether this was a valued practice by the nurses as well as the PTs.

PICO QUESTION

So, the big question arises rhetorically, why has a valid and reliable fall tool not decreased fall rates? To formulate an evidence-based improvement project, a PICO question was developed. The PICO question assists the improvement team in defining the patient population, interventions of interest, comparison of practices, and outcomes for a given project.[3] For this project, the question was defined as: In a convenience sample of inpatients determined to be at high risk for falling, will identifying and modifying practices determined to be obstructive to implementation of an evidence-based fall prevention practice measurably reduce the occurrence of falls when compared with current practice?

Although randomized controlled trials are desired to establish evidence-based practice (EBP), they are not necessary for implementation of practice change and difficult to achieve in a real hospital setting.[1,4] In an EBP project, the team is testing the implementation of a new or existing process to achieve EBPs. Since the practices are evidence based, they should not be withheld from half the group. Therefore, this project was designed to use a convenience sample of hospitalized patients evaluating obstacles to the implementation of a research-based protocol, and then attempting to remove the obstacles to improve outcomes.

EVIDENCE

A literature review of published fall-related research was the first step in answering the PICO question. It was surprising how much information was available regarding falls. After initial review of more than 100 publications related to falls, 22 were selected for thorough review. The 22 publications spanned the "hierarchy of evidence," although most evidence was derived from studies conducted without randomization. Of the 22 publications, 18 were selected to be used as references in this project. We stratified them using an EBP research critique form keeping the current publications and those that were relevant to the project.

The literature consistently revealed that the etiology of falls is multifactorial.[5-7] We found that regular rounding reduces falls; falls are multidisciplinary; and falls are a nursing-quality indicator. Educational oversight is needed to maintain an active prevention protocol. Some of the barriers to success documented in the literature were education, training, resources, and appropriate oversight of a prevention protocol.[8] A single nursing diagnosis plan of care cannot adequately identify the multiplicity of risk factors that contribute to an inpatient fall.[2,8,9] A standardized evidence-based assessment tool is indispensable. When applied with critical thinking skills, an assessment tool ensures consistently appropriate fall-risk–level designation.[2,4,7,9] Hourly safety rounding, postprandial and bedtime toileting rounding, and providing fluids and repositioning as needed preempt patients from attempting unassisted or unsupervised ambulation.[10,11] Ensuring appropriate lighting, clearing clutter, and removing trip hazards from patient's room mitigate environmental fall influences.[4] Although hospital inpatient falls are a nursing-sensitive quality indicator, successful inpatient fall prevention programs are universally multidisciplinary. An inpatient's risk for falls must be recognized and intervened upon by all disciplines.

For a nursing-centered multidisciplinary fall prevention program to be successful, it must be placed at the forefront of patient care priority.[8] A hospital's interdisciplinary hierarchy must support a nurse lead program. Barriers to the implementation of the nurse lead program must be identified and mitigated. The success of the inpatient fall prevention program is directly proportional to the amount of resource and oversight committed to that program. A highly visible program with an officiated structure supported

by regular interval training and performance review must be maintained.[8,11] Unfailing program support is imperative for sustainability of a successful program.

VALUES

Understanding values is an important component of a change in practice project. Values may be staff, physician, or consumer driven. The best designed project will fail if the staff or physicians do not value it or the patients will not accept the plan. Falls are a nursing-sensitive indicator; the nurse at the bedside must value the assessment tool in the prevention of falls for the patients under his or her care. It is the duty of the nurse to cause no harm. Decreasing falls reduces fall-related negative outcomes. The patient can suffer an injury that could cause a fear of falling, therefore decreasing his or her activity level as well as weakening him or her; or the injury may lead to short-term rehabilitation, permanent disability, and loss of independence.[5,7,8,12,13] The negative outcome can affect family members who have to take care of their loved one, and the community may lose a productive citizen and may now have the burden of the increased cost that it takes to care for an individual with disability after discharge. Any fall can have untoward effects on Scripps Mercy Hospital financially.[7,13] A fall can increase the patient's length of stay, and the patient may require surgery and additional resources for care while he or she is in our care.[4,8,9,14]

It was assumed that the patients valued and would accept the interventions as proposed. From baseline observations, it was determined that staff and physician values would have the most impact on this particular project to reduce falls. Therefore, the project design included soliciting staff and physician feedback. Questionnaires for the staff and physicians were developed to gain insight into the values and knowledge regarding the current fall prevention protocol and preformatted orders available at Scripps Mercy. Unfortunately, only a handful of physicians participated. In the future, it may be wise to approach the physician leadership with ideas on how to increase MD participation.

RESOURCES

It is estimated that each fall can cost the hospital approximately $11 402 depending on injury and length of stay.[10] Because of the cost of falls, as well as the increasing number of falls within this department despite a standardized protocol, the cost of formal EBP training to execute the project was deemed justified by hospital administration. The majority of the cost of this project included education, training, and off-schedule time for execution and monitoring of the project.

The leadership on the DOU agreed to send 1 staff member to the Evidence-Based Practice Institute, which was a consortium of local hospitals for nursing excellence in San Diego (http://nursing.sdsu.edu/inr/consortium.php). A bedside nurse was chosen as the fellow; an advanced practice nurse as the mentor; and a clinical nurse specialist as the representative for Scripps Mercy Hospital and project mentor. The fellow and mentor completed an application describing the evidence-based project idea with problem, significance, goals, interventions, and changes that needed to be addressed. The importance of the clinical problem was addressed. They both signed a contract to attend all educational sessions, which included 6- to 8-hour paid monthly sessions over 5 months and 48-hour paid nonclinical time to work on the completion of the project. The fellow met with the mentor for a minimum of 1 h/mo, this was part of the 48-hour nonclinical time. The fellow identified and recruited the education training team, which consisted of 2 day-shift registered nurses (RNs) and 2 night-shift RNs. The education team met for a 4-hour paid train-the-trainer, fall champion session. The fall champions logged in 6 h/wk from May 14 through June 18, totaling 96 hours during the educational role of phase 1 of the study. The team during this period collected data on the current fall prevention protocol interventions on all patients at high risk for fall. The team

Timeline
EBP Institute Fall Performance Improvement
11th floor—DOU

Apply	Recruit	**Washout period 30 days**		Analyze	Present
April 19 IRB application Turn in to Judy	May 1 Recruit Ed training team Need 1 staff RN for days And 2 staff RN for NOC Total 5 RN include Kevin and I.	May 14 Role out EdEnd [a](2 team member to sign up to Ed at least 6 hours a week (days & NOC) for 4 weeks. 12 hours each shift × 4 weeks = **96** hours of Ed/training [b]June 18—The team can round at least 8 h/wk (day & NOC) to ensure compliance for 12 weeks, rounding hours = **192 hours**	June 18 Ed/start rounding	September 17 Data analysis Felipe	October 30 Present Felipe Kevin

[a]Phase 1, role out education by team on May 14 through June 18, 2007.
[b]Phase 2, rounding on unit by team on June 18 through September 17, 2007.

Figure 1. Timeline to assist in project management and to keep leadership informed on the unit.

also distributed a questionnaire to the RN to gain knowledge of what interventions kept their patients from falling while hospitalized; the nurses who did not have a patient fall in the last year were given an opportunity to share interventions they implemented to keep their patients from falling.

After training and project development, execution of the project took place between June 19 and September 17 in phase 2 of the study—rounding. The fall champions were asked to conduct data collection and education for at least 8 h/wk. One champion for day shift and one for night shift came in to ensure the compliance of current fall protocol for a total of 192 hours. Because the fellow had hours left over from his EBP classes, and the mentor was salaried, the total DOU commitment was approximately 112 hours. All these hours were in addition to the team's regular working hours and fell under education.

METHODS

Using an EBP framework of evaluating evidence, experience, and values, qualitative and quantitative data points were selected on the basis of literature review targeted to identify universal barriers to implementing an interdisciplinary multifactorial fall prevention protocol.

A timeline was created to assist in project management and to keep leadership informed (Fig 1). The project was reviewed and approved by the institutional review board. The PDCA (plan, do, check, act) model was utilized. During the planning phase, the PICO question was developed. Tools to assist in data collection were developed (Fig 2). The fall champions were recruited and final approval to go ahead was obtained. The goal was to capture a sense of what the nurses value and connect that with their daily interaction with the patients.[1] The team was trained and sent out to conduct quality improvement, educational, observational, and compliance rounding. A brief "elevator speech" was developed for the team to utilize when approaching the staff:

- Our project goal is to improve the patient care quality by preventing inpatient falls.
- Our patient population is more educated about healthcare quality and is seeking the highest-quality care available.
- Nurses play a primary role in preventing falls.
- We want to be able to advertise to the public that we have the highest-quality nursing care available in California; to this end, we must reduce patient falls.
- Historically, the DOU floor has exceeded minimum acceptable fall occurrence standards as benchmarked by CalNOC.
- If provided enough resources and staff and nursing is practiced according to evidence, we can likely minimize falls and the related negative outcomes.

Attachment B

Title: **Identifying and Eliminating Nursing Practice Barriers Within an Existing Evidenced-Based, Inpatient Fall Prevention Protocol**

Rounding tool for patients identified at high-risk for falls.

Instructions: Complete one form on each high-risk patient in the department on day of audit.

Room number: ____________

Sign on door/ falling star 1 = yes 2 = no	Sign in room/call do not fall 1 = yes 2 = no	Armband on 1 = yes 2 = no	Toileting schedule/ posted if applicable 1 = yes 2 = no 3 = N/A	Fall on this admission 1 = yes 2 = no	Fall-risk level given in verbal report? 1 = yes 2 = no	Charted appropriate risk level? *Review chart (MD transcript, progress notes)*. If no document findings below[a] 1 = yes 2 = no	Low bed and bed alarm ordered for patient—impulsive/apt to forget limitations/ unable to follow directions 1 = yes 2 = no 3 = N/A	Environment free from clutter? 1 = yes 2 = no
Call light, urinal, bedpan, bedside commode, water within reach 1 = yes 2 = no	TP educated by RN regarding patient fall-risk level and aware of fall-risk interventions 1 = yes 2 = no	Patient unable to communicate (medication induced confusion/ other factors) 1 = yes 2 = no	Patient demented or confused unable to comply 1 = yes 2 = no	Was patient and or family educated? Look for charting 1 = yes 2 = no	PT and/or OT order 1 = yes 2 = no	PT and/or OT gait assessment documented if applicable 1 = yes 2 = no 3 = N/A	Fall-risk and patient-specific interventions identified on IIPC 1 = yes 2 = no	Ticket to ride include fall risk 1 = yes 2 = no 3 = N/A

[a]Additional findings/comments from surveyor regarding questions above:

____

____

Research team: Return to envelope provided after you have completed.

Attachment C

Title: **Identifying and Eliminating Nursing Practice Barriers Within an Existing Evidenced-Based, Inpatient Fall Prevention Protocol**

RN Survey
Definitive Observation Unit (DOU)
Fall Intervention Prevention Questionnaire

By participating in this survey you are giving the project team implied consent to participate in this quality improvement project related to fall intervention prevention at the bedside. The answers will be kept confidential and no names will be disclosed. The purpose of this project is to gather expert opinions from the nurse at the bedside to gain knowledge of what interventions keep patients from falling while hospitalized.

1. Circle the number 1 if you wish not to participate in survey.
2. Have you experienced any patient falls on the DOU within the last year? Please check your answer. Yes ______ No ______
3. If **YES**, skip question 4 and move on to question 5.

Figure 2. Data collection tools (attachments B, C, D). (*continues*)

4. If **NO**, please tell us in your own words below what interventions have you implemented while caring for the hospitalized patient at the bedside to prevent them from falling. Elaborate as much as possible use other side of form if needed for more space:

____
____
____
____
____

5. Check which of the following interventions you found effective for preventing a fall?

	Engage/educate family members		Order PT or OT
	Engage/educate patient in plan		Using fall signage available
	Orient patient to environment		Ensure call light within reach
	Apply nonskid slippers/shoes		Urinal/bedpan/commode within reach
	Ensure room free of clutter		Place bed for patient to exit strong side
	Use bed alarm		Use fall precaution lavender armband
	Use low bed		Notify pharmacist of high-risk medicines
	Engage patient in diversion activities		Implement Fall Prevention PFO
	Communicate with care team		Fall plan on IIPC written/shared
	Implement toileting program		Move patient to SAFE unit
	Relocate patient near nurse station		Frequent hourly rounding

6. Have you personally cared for a patient with written orders on the preformatted orders available in IDX/Last Word titled "Fall Prevention Order For High Risk Patients?" Please check your answer. Yes ______ No ______
7. Have you personally initiated the preformatted orders available in IDX/Last Word titled "Patient Fall Follow Up Orders" after a patient fall?
   Please check your answer.
   Yes ______ No ______ N/A – no patient of mine has fallen ______
8. If **NO**, to either question 6 and/or 7 above, ask the project team for more information on the use of the preformatted orders.

Thank you for your participation, your answers will assist us to better serve the patients at Scripps Mercy Hospital. Return survey to researcher after you have completed on the same day please.

Research team: Return to envelope provided after you have completed.

Attachment D

Title: **Identifying and Eliminating Nursing Practice Barriers Within an existing Evidenced-Based, Inpatient Fall Prevention Protocol**

MD Survey
Definitive Observation Unit (DOU)
Fall Intervention Prevention Questionnaire

By participating in this survey you are giving the project team implied consent to participate in this quality improvement project related to fall intervention prevention at the bedside. The answers will be kept confidential, and no names will be disclosed. The purpose of this project is to gain insight into the values and knowledge of the medical staff regarding current fall prevention protocol and preformatted orders available at Scripps Mercy Hospital.

1. Circle number 1 if you the participant wish not to participate in survey.
2. Have you personally used the preformatted order available in IDX/Last Word titled "Fall Prevention Order For High Risk Patients?"
   Please check your answer. Yes ______ No ______
3. Have you used the preformatted order available in IDX/Last Word titled "Patient Fall Follow Up Orders" after a patient fall?
   Please check your answer.
   Yes ______ No ______ N/A – no patient of mine has fallen ______
4. If **NO**, to either question 2 and/or 3 above, ask the project team for more information on the use of the preformatted orders. The researcher will provide you with the information necessary for future use by showing you where you can obtain the preformatted orders.

Figure 2. (*Continued*) Data collection tools (attachments B, C, D).

5. Check which of the following interventions from our protocol that you value for reducing falls:

	Engage/educate family members		Order PT or OT
	Engage/educate patient in plan		Using fall signage available
	Orient patient to environment		Ensure call light within reach
	Apply nonskid slippers/shoes		Urinal/bedpan/commode within reach
	Ensure room free of clutter		Place bed for patient to exit strong side
	Use bed alarm		Use fall precaution lavender armband
	Use low bed		Notify pharmacist of high-risk medicines
	Engage patient in diversion activities		Implement Fall Prevention PFO

6. Other suggestions for fall risk interventions. In your own words, please indicate below what interventions you personally value in preventing patient falls.
Elaborate as much as possible use other side of form if needed for more space:

Thank you for your participation, your answers will assist us to better serve your patients at Scripps Mercy Hospital.

Return survey to researcher after you have completed on the same day please.

Research team: Return to envelope provided after you have completed.

Figure 2. (*Continued*) Data collection tools (attachments B, C, D).

- We wish to prove that we can reduce our fall rates by eliminating practice barriers in our existing nursing-centered multidisciplinary fall prevention plan.
- Our project goal is to identify and eliminate practice barriers within our existing evidence-based fall prevention protocol, improve its effectiveness, and thereby reduce falls and improve our quality of patient care.
- We think that we can reduce our fall rates dramatically by being more vigilant about a good fall prevention plan; for instance, toileting our high-risk patients per protocol.
- I know it sounds simple, but these strategies have been used in other hospitals and they are known to work.[15]

Over a 4-month period, data were collected using a convenience sample of the DOU patients on given audit days. Staff and physician values related to fall prevention practices were audited using surveys collected from nearly 100% of the DOU nursing staff and a sample of key physicians. In phase 1, data collection fall champion teams rounded, educated, and trained the staff.

The staff provided consent to the team before filling out the survey with waived signature to protect the confidentiality of the participants. Because this was a hospital-based quality improvement project that posed no risk to patients, no written consent was needed from patients or family. Falls for this project were based on the CalNOC reported definition, and were defined as an unplanned descent to the floor and categorized into types of fall.[16]

Results of initial investigation of staff values

The champions surveyed healthcare provider opinions, behaviors, and provided fall prevention protocol in-services, and looked at patient behaviors. RNs were asked to check what interventions they found to be effective in the current policy for fall prevention. They also surveyed nurses to gather staff expert opinions at the bedside to gain knowledge of which interventions keep patient from falling while hospitalized.

Nurses who had not had any patient falls on their shift within the last year were asked to share what interventions they felt kept their patients safe (Table 1). The literature eluded to several interventions in the prevention of falls, important among them

Table 1. Opinions regarding effective fall prevention measures from bedside clinicians

Instruct the patient not to get up without calling me first
Assist with transferring/ambulating the patient
Assess patient needs assessment before any movements
Keep the call light within reach
Staff member constant observation
Charting in the patient's room
Frequent rounds
Side rails up
Anticipate needs and move patient close to nurses station
Medication for anxiety
Staff member sitter = constant observer = therapeutic companion
Try to round every 1–2 h to ensure patient safety
If I have a confused patient, I have him or her moved closer to the nurse's station to listen and watch the patient closely
More family members at bedside taking turns 24/7 to stay with the patient
Technical partner's to do more patient checks q25 min
Technical partner's to check patient at the end of shift q15 minutes during shift change
Use of low bed, 3 side rails up
Bedside commode done twice on shift
I usually ask family whether there is somebody available to stay with patient
If patient able to get up, sit them in a chair
I usually get them up
As needed medications to assist with relaxation
Address their pain if needed
Instruct patient to call for help/assistance when needed
Call light within reach at all times
Offer toileting q2 h
If confused/disoriented, use bed alarm
Frequent reminder not to get up by themselves
Checking on them every hour
Sitter have been helpful in the past in prevention of fall
Answer patient's call lights
Making sure call lights within reach
Making sure patient treated for pain or other agitated disorders
Diversional activities such as music, scenery channel on TV

being the hourly rounding, toileting, family presence, appropriate lighting, and removing trip hazards.[2,4,7,11,13,15,17]

In phase 2, the team continued to conduct data collection, and postinterview teaching was implemented as needed to improve nurses' understanding of the fall protocol strategy implementation. The team evaluated the correlation between nursing behavior change and patient outcomes. Observational and chart audits identified a percentage of compliance with nursing interventions individualized according to the results of the Morse fall-risk score and the hospital fall prevention protocol.

The team rounded to ensure the compliance of current fall protocol; during this time, the fall committee analyzed falls using coding and occurrence reports to look at trends on the DOU. The data were analyzed with the assistance of a statistician, and were presented at the Association of California Nurse Leaders conference and the Consortium Clinical Excellence graduation ceremony. The team

looked at the barriers to the implementation of EBP fall prevention policy. The team presented the findings to the leadership at Scripps Mercy Hospital.

A planned opening of the Specialty Adult Focused Environment (SAFE) unit took place in May on the DOU. At this facility, a SAFE unit is a designated area of the floor where patients at high risk for fall are clustered, and an enhanced staffing matrix increases the opportunity for observation. It was originally designed as a separate attempt at decreasing falls. However, since the SAFE unit was opening at the same time as the projected implementation of the fall performance improvement (PI) project, the leadership agreed to allow the champions to be the owner of the new unit and fold both projects together.

The strategies found in the literature to reduce falls were embedded into the process of providing nursing care within the newly formed SAFE unit.[2,4,7,11,13,15,17] The unit consisted of 3 hospital rooms with 2 beds each located at the end of a hallway, designating them "The SAFE unit." A satellite nursing station was set up outside the rooms. The unit was staffed with 2 RNs and 1 technical partner for 6 patients. This setup has been proven effective in the hospital in the past on a different floor, with the outcome being a decrease in restraint use, sitter use, and fall rates. The SAFE unit was originally staffed by the fall champions and RNs who volunteered to work in the unit regularly. The core group took ownership of the unit and assisted in developing fall prevention strategies and preformatted fall protocol order sets.

Once the SAFE unit was accepted as a standard of care on the DOU, rotating other staff members through the unit proved effective. Novice RNs were in-serviced on fall prevention strategies, fall protocol order sets, documentation, and fall prevention safety equipment. This process assisted the fall champion team to collect data, educate, and train the DOU staff as part of their project. When falls occurred anywhere on the floor, fall champions closely reviewed the incident, and, if appropriate, provided in-servicing for the healthcare providers who were assigned to that patient.

Some of the SAFE unit interventions that were initiated and/or reinforced were the current fall protocol, high-fall-risk order sets, SAFE unit order sets, postfall order sets, quite zone, use of recliners in hallway, and low beds with internal bed alarm. Providing diversion equipment, keeping doors open and curtains pulled back, while maintaining privacy, and providing nurses with portable computers for documentation within the sight of patients were also strategies implemented to reduce falls.

The charge nurse report form was updated to include a fall-risk assessment score from the previous shift using the Morse scale.[18] The charge nurses would report to each other any patient at high risk for falling and put in motion a plan to move the patient either to the SAFE unit or closer to the nurses' station and ensure that all SAFE interventions were implemented.

OBSTACLES

In phase 2, during the data collection phase, half of the team had dissolved and only 2 individuals were continuing to collect data for the project. The mentor had an unexpected surgery on July 24 and was out of the office for 2 weeks. He was ordered by employee health to stay off the units until September 3. Two of the night-shift champions transferred out of the department, 1 left at the end of August; however, he managed to log in about three quarters of his hours. The other champion left in October, logging in only half of the projected hours required to finish the project. One of the day champions logged all his hours and the other day champion logged in only half of her hours because of family and other commitments that prevented her from coming in on his off days. In the last 2 weeks of phase 2 of the project, the mentor was allowed back on to the unit. He attempted to call each team member to personally ask them to help collect data, but did not realize that 2 of the team members had left the

organization and as a result he was not hearing back from them. One other team member intended to continue to collect data, but this did not occur. The mentor asked the fellow on the project to assist in collecting data since the numbers were down at that time. He too was preoccupied with other priorities, but when he was at work, he was able to collect more data and was an advocate for the fall project.

Only a handful of physicians participated. Physicians are busy and come to the hospital to see their patients, write orders, and leave. It could be that approaching them while in the hospital was not the best approach. The MDs who participated shared that they did not use the preformatted orders for fall prevention and/or the fall follow-up orders. Since the use of the preformatted orders was not a common practice, the champions provided the MDs with the information they needed to obtain the order sets. One MD shared, "This was helpful and informative, thanks."

This was one of the first staff-led evidence-based projects in this department. Changing roles from staff to change agent came with challenges. The mentor had several one-on-one meetings with the fellow regarding frustration during the rocky execution of the project despite proper planning. Initially and throughout the project, there were some instances when the staff were not supportive of the project, and they did not understand and accept his role as champion or change agent for the unit. One of the interventions the mentor did to alleviate any questions concerning the fellow's role was to attend staff meetings and inform the staff about the process of choosing the fellow for the PI project. It was emphasized that this was not his project but a team effort and that he was leading the way to improve falls on their unit. The staff seemed to be grateful to the fellow, and some of them even shared that they were glad they were focusing on falls, because they did not realize how many falls were occurring on their unit. One of the obstacles might have been asking the fellow to present his project to the staff at a staff meeting without explaining to them that it was something the leadership assessed would be helpful to the unit as a whole. It took a period of transition to have the balance of the floor accept the project leadership by another staff member.

RESULTS

In the previous three quarters before the PI project, falls steadily rose from 3.00 to 4.87/1000 patient days (PD). During the first phase of the study, May 2007 through June 2007, fall rates dropped from 4.87/1000 PD, above CalNOC benchmark, to 3.59/1000 PD (Fig 3). Staff knowledge increased regarding the use of the fall prevention protocol.

As the project fellow shared, "Champions equal change," when you find a staff member on the unit who has a passion to lead change, in time the staff will follow even if there is resistance initially. Champions change not only the practice of a unit but also the culture. It is a slow process and patience is required. Initially, resistance to change comes from everywhere, but then one person at a time you change the staffs' perspective. Resources equal results. It takes leadership support, staff involvement, time, money, and energy to ensure that the project is successful. Some of the resources allocated to this project were in the form of inanimate objects such as a low bed with built-in bed alarm, diversion equipment, TV with VCR, and rocking chairs for patients to sit out in the hallway. Once the SAFE unit became permanent to the landscape of the unit, RNs quickly figured out that it was a resource for patients at high risk for fall and patients at risk for self-injury other than falls, and they were eager to utilize the service.

As stated earlier, staff-driven educational oversight works eventually when the staff is aware of the true reasons why they are involved. The opportunity was there to be heard and make the changes needed to make their job easier and to keep their patients safe. The nurses would ask the charge nurse to transfer their patient to the SAFE unit. In passing patient report to the SAFE unit RNs,

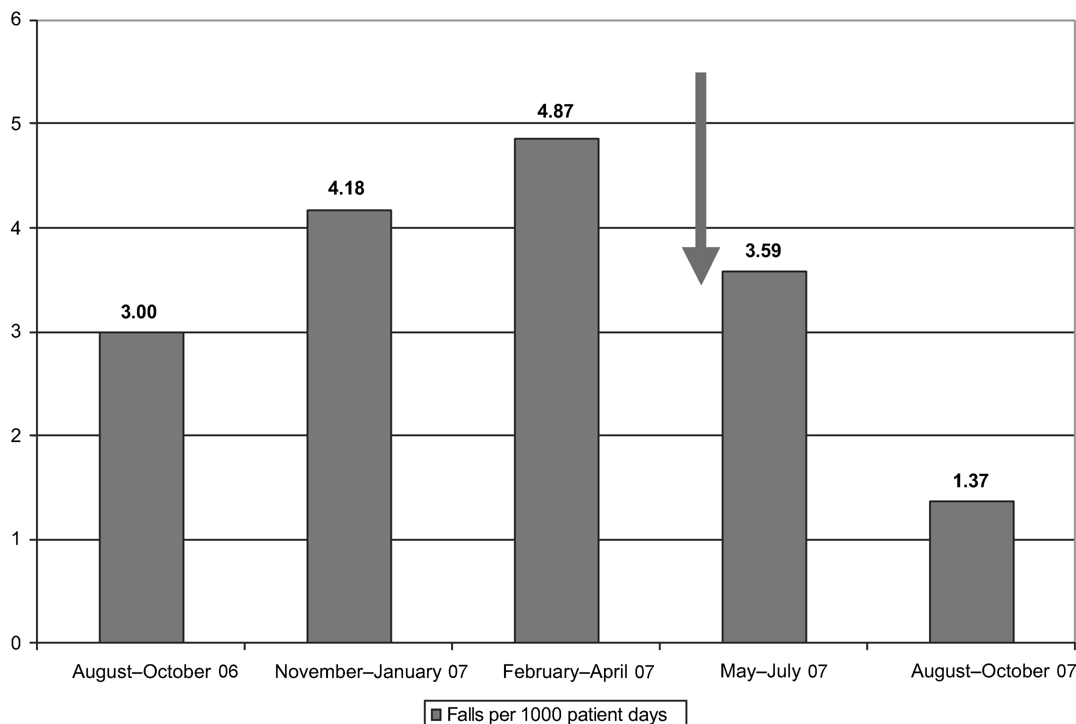

Figure 3. Fall rates from August 2006 through October 2007. Arrow represents start of change; California Nursing Outcomes Coalition benchmark = 2.8 for step-down unit.[16]

the staff RNs had a difficult time articulating the patient's risk factors and just wanted to transfer the patient. So the fall champions in-serviced the charge RNs to require the staff RNs to complete a high-fall-risk resource packet before the charge RNs would transfer their patient. The trade-off was that if they wanted to utilize SAFE as a resource, they had to learn and exercise the protocol.

It was evident throughout the project that nurses were not correctly using the fall prevention interventions. More than 50% of staff RNs surveyed had experienced a patient who had fallen in the last year, yet they were not communicating the fall-risk level at report or during transfers. Another important finding was that nearly 50% of patients could not communicate with the staff during phase 1. In phase 2, less than 20% of the patients could not communicate with the staff. At the end of phase 2 of the project, there was a significantly lower occurrence of patients with dementia within the sample population ($\chi^2 = 3.746$; $P < .05$). A closer look at the data indicated that falls for confused patients decreased and that there was an increase in fall prevention measures for these patients by transferring them to the SAFE unit. If the risk for falls was not related to confusion, the nurses did not activate preventive measures despite the score and falls increased during phase 2. This has been the focus of future interventions to further reduce falls. The data clearly showed that more nonconfused patients were admitted during phase 2 of the project.

In summary, many of the process outcomes that were measured did not improve. But what happened to falls? Staff knowledge has increased regarding the use of the current fall prevention protocol, Morse scoring, and interventions for fall prevention. These factors were identified as barriers to the implementation of the EBP fall prevention protocol. The culture on the unit has changed to active fall prevention, at least in the

confused patient. One could theorize that the segregation of the high-risk confused patients into the SAFE unit and staff with specialized heightened awareness had a greater impact than the generalized education. This type of active research approach was effective in allowing the staff to self-reflect their own practice at the bedside and create solutions to their own problems with practice. The surface has only been scratched, and there is still much work to be done. The nurse at the bedside has many priorities; therefore, we believe that constant rounding focused on fall prevention will ultimately change the practice that will become second nature.

An unexpected finding was that nurses from other departments started using the DOU as a resource for questions related to falls. The nurses on DOU became most skilled with the use of the low beds and have provided consultation to other departments on fall-risk strategies.

CONCLUSIONS

Addressing the literature review saturation points has yielded tangible results. Staff championed best practice-integration works.[11] Educational oversight yields practice change, with multiple in-services and staff reminders.

Using a dedicated team of champions to implement the project has proven to be an effective practice change strategy despite the challenges of a fluid workforce. In this organization, it has yielded positive results with decreased restraints, pressure ulcers, and now falls on the DOU. With a supportive manager, champions for the best practice-integration work well. Champions take ownership pride in their projects. With mentorship from an advanced practice nurse, this project was championed by a staff RN. The RN recognized a need for better practice integration, attended an EBP institute, conducted a literature review, and presented his findings. He was given the opportunity to choose a team of staff nurses to help champion change on both days and nights. This process has proven to be effective and has placed fall prevention resource experts on the unit for both days and nights.

In an attempt to become more transparent about falls incidence, the nurses have been educated on the definition of falls, within a *no blame* culture that encourages RNs to report fall occurrences. Falls, as other incidents reported in the hospital, are reviewed from a system perspective.[1,8] The audit process routinely evaluates what the system process is, whether the nurse has followed the policy, and whether barriers have prevented the implementation of the policy. For example, in this project, it was discovered that the system was low on bed alarms; the nurse would call but was told that there was no bed alarm. Also, there was confusion on how to use the bed alarms. With this input, the process has been made easier for the bedside nurse in both obtaining and using the alarm system.

The fellow shared, "From a personal perspective, I have learned a lot about preventing falls; but, probably the most important lesson that I have learned throughout this entire project is that it is not easy to be a leader amongst nurses. It is rewarding though."

Implication for future change strategies

The authors for the project would like to see a unit-based Collaborative Practice Council propose practice improvement and champions for change to be recruited for each new project. The unit staff members will utilize literature to identify the best practice, and staff champions will implement the culture change. They are knowledgeable regarding their role as nurse leaders, and now embrace that they must be a part of change on their unit. Staff involvement, as champions within an EBP project, has proven effective in changing practice. Staff have, over time, been receptive to input from colleagues, though initial resistance occurred. The champions not only have been involved in education, training, and rounding but also have become fall prevention resources. More staff-initiated ideas are being voiced on other practice issues since they have witnessed that an RN can impact change.

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