Why Do Patients in Acute Care Hospitals Fall? Can Falls Be Prevented?

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Abstract

Objective—Obtain the views of nurses and assistants as to why patients in acute care hospitals fall.

Background—Despite a large quantitative evidence base for guiding fall risk assessment and not needing highly technical, scarce, or expensive equipment to prevent falls, falls are serious problems in hospitals.

Methods—Basic content analysis methods were used to interpret descriptive data from 4 focus groups with nurses (n = 23) and 4 with assistants (n = 19). A 2-person consensus approach was used for analysis.

Results—Positive and negative components of 6 concepts—patient report, information access, signage, environment, teamwork, and involving patient/family—formed 2 core categories: knowledge/communication and capability/actions that are facilitators or barriers, respectively, to preventing falls.

Conclusion—Two conditions are required to reduce patient falls. A patient care plan including current and accurate fall risk status with associated tailored and feasible interventions needs to be easily and immediately accessible to all stakeholders (entire healthcare team, patients, and family). Second, stakeholders must use that information plus their own knowledge and skills and patient and hospital resources to carry out the plan.

Patient falls are serious problems in acute care hospitals and are used as a standard metric of nursing care quality.[1] The unfamiliar environment, acute illness, surgery, bed rest, medications, treatments, and the placement of various tubes and catheters are common challenges that place patients at risk of falling. Falls are devastating to patients, family members, and providers. A single fall may result in a fear of falling that can begin a downward spiral of reduced mobility, leading to loss of function and further falls.[2-4] There

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have been many published research studies regarding falls. Although there is a sense of urgency in hospitals to prevent falls to "do no harm" and because Medicare will not reimburse hospitalization costs due to fall related injuries,[5] patient falls remain a serious problem in US hospitals.

A review of fall prevention literature was conducted of English-language publications found in MEDLINE (1966 to November 2008) and CINAHL (1982 to November 2008) databases following procedures suggested by a literature consult service[6] and using the search terms *accidental falls, qualitative research, risk assessment, accident prevention, nurses, nursing assistants*, and *hospitals*. Abundant research on fall risk assessment has resulted in well-established fall risk factors,[7-10] but assessment does not prevent falls; interventions are needed to prevent falls. Regrettably, the evidence regarding the effectiveness of fall prevention programs is inconclusive.[11] Synthesis revealed that this may be the result of many barriers to studying fall prevention in hospitals.

Designing experiments to study fall prevention is challenging[3,10,12] because randomized controlled trials cannot be performed because once risk status is established, it is unethical to withhold measures to prevent falls, that is, to place the patient in a no-treatment/control group. It is also unclear if patients are exposed to an intervention and do not fall, if they were at risk for falling in the first place, or whether the application of a fall prevention intervention in fact prevented a fall. Studies conducted using multifaceted interventions with unknown strength or fidelity have ambiguous findings, further complicating the literature. As a result of this dearth of evidence, qualitative studies related to fall prevention in hospitals were reviewed. Yet, few qualitative studies have been conducted with hospital-based registered nurses (RNs) and nursing assistants (NAs), the direct care providers at patients' bedsides.

A comparison of views among healthcare providers, seniors (aged ≥65 years for whom falling is a common and comorbid condition),[13] and researchers regarding reasons for falling revealed that providers and seniors focused on antecedents and consequences of falls, whereas researchers focused on the actual fall itself.[14] An exploration of the views of NAs revealed that NAs felt their views were often peripheral to the administrative and educational processes related to fall prevention. Furthermore, NAs believed that falls were not preventable.[15] All bedside providers should be brought into the fall prevention process,[15] as should patients and their families.[16]

Several summary review and meta-analysis articles[3,12,17] concluded that there is no established linkage from a patient's fall risk assessment to communicating risk and to identifying and communicating tailored interventions to prevent falls. Although the primary data in those articles are up to a decade old, we found no recent research articles about connecting risk assessment to tailored fall prevention interventions, which limits the ability of bedside RNs and NAs to prevent patient falls. We did find a program evaluation that reported a modest decrease in falls after introduction of a tailored fall prevention program, but the results were not significant.[18] It is known that interventions to prevent patients from falling do not rely on highly technical, scarce, or expensive equipment. Yet, falls remain serious problems in hospitals. We sought to learn the views of RNs and NAs about why patients in acute care hospitals fall and how falls could be prevented.

Methods

Site and Participants

We held 4 audiotaped focus style group interviews with 3 to 10 nurses per group (n = 23 total) and 4 with 4 to 6 assistants per group (n = 19 total) in 4 acute hospitals, 2 urban

academic medical centers, and 2 suburban teaching hospitals in the same hospital system. Institutional review board approval and site agreement were received for each of the 4 sites. RN and NA potential participants were identified by nursing leaders, recruited by flyers and personal invitation, and provided informed consent. RNs were mostly women (91%), white (96%), aged 24 to 68 years (median, 39 years), and well educated (BS or MS degree holder = 16) and had 1 to 40 years' (median, 12 years) experience with a median of 10 years in the participating hospital. NAs were mostly women (79%), Black or African American (63%), aged 30 to 62 years (median, 49 years), and with 4 to 16 years (median, 12 years) of formal schooling and 2 to 25 years' (median, 10 years) experience as an NA with a median of 7 years in the participating hospital. English was a second language for several NAs in each focus group, but they were able to express their opinions, answer questions, and participate in discussions.

Data Collection and Analysis

In all 8 focus groups, a combination of preplanned questions, requests for clarification to "help me understand" and "tell me more about," and discussion of knowledge, skills, how to obtain accurate falls risk information, how to access materials for preventing falls, and overall ability to prevent falls was used. The moderator elicited answers from individual participants and promoted group discussion. RNs were asked questions such as "How do you know if a patient is at risk for falling?" "How is fall risk communicated to NAs, the patient, visitors, and members of the interdisciplinary healthcare team?" "How do you decide which interventions to use to prevent falls?" and "How are planned interventions communicated… carried out… evaluated?"

Clarification was requested concerning information learned in earlier focus groups, for example, "We have heard some things from other groups; I would like to ask your opinion about use of a Kardex, knowing if equipment and supplies to prevent falls are in inventory and accessible, a potential disconnect between what RNs know about a patient's fall risk/fall prevention and what NAs know." NA-specific questions were "Tell me how you know your patients' risk of falling," "How are patients' fall risks communicated to you?" "How do you know what to do to prevent patient falls?" and "How is information about preventing patients from falling communicated… carried out?" Clarification was also requested concerning information learned in earlier focus groups, for example, about "doing patrol in the halls," not receiving a patient report until a few hours into a shift, and learning how to ambulate patients by watching the physical therapist.

Raw data were transcribed into Microsoft Word, reviewed and corrected for transcription accuracy and removal/masking of identifying characteristics, converted into the NVivo software program, open coded to capture meaning, and selectively coded using a 2-person consensus approach. Basic content analysis methods[19] were followed to interpret these descriptive data. A process of debriefing among researchers, engagement with the raw data and codes, and use of field and reflective notes to ensure reliability and validity followed. Concepts were linked to discover new perspectives from the accounts of participants' experiences.[20]

Results

Six concepts with both negative and positive components provide reasons why patients fall/ suggestions to prevent patients from falling: (1) patient report, (2) information access, (3) signage, (4) environment, (5) teamwork, and (6) involving patient/family. Concepts' positive (facilitators) and negative (barriers) components are listed in Table 1 with 2 core categories: knowledge/communication and capability/actions.

Patient Report

Both RNs and NAs identified synchronous verbal exchange as the most common method of fall risk communication, favoring verbal reporting despite acknowledging delays in giving or receiving report. While RNs received report at the beginning of their shift, NAs provided care for hours without receiving report on their patient assignment. NAs stated that unless they worked the previous day, they had little or no information on their assigned patients as they began their shift and no information about other patients on the unit despite being responsible for answering call lights for all patients. RNs and NAs both commented that reporting practices and the accuracy of reports related to fall risk and interventions were variable, often depending on individuals giving and receiving report.

NAs were concerned because, when they began their patient care duties at 7 AM, they did not receive current patient information such as which patients had slept well or not, and most importantly, they did not know patients' activity levels. NAs related patients' morning routines to their own, stating that the first thing they did at home when they woke up was to go to the bathroom and that patients want to go to the bathroom immediately after they wake up. Yet, NAs had to find the RN who knew the patient's status, which delayed their being able to respond to the patient and often resulted in patients getting up on their own. NAs were concerned about the timing of receiving information to guide their actions:

> Five or 10 minutes is very important… I'm not moving someone without knowing that I can move them.

Information Access

When RNs and NAs answered the call light of an unfamiliar patient requesting assistance with toileting, they were often unsure about how to help, stating they needed to know the type of assistance required by a particular patient, they wondered if the patient uses a bedpan or gets out of bed to use a commode or the bathroom, if the patient is steady on his/her feet, if a walker or other device is required, and once in the bathroom, if is it safe to leave the patient alone. All RNs use the Morse Fall Scale (MFS) for assessing fall risk. Although MFS scores were documented in the medical record, some RNs believed the information to be incomplete. There was no mechanism to systematically communicate fall risk status to NAs or across disciplines. Neither NAs nor patient/family had access to this information in the medical record. One RN at a site where a multiple-page patient care plan is computer generated from all assessment forms, including risks/scores on the MFS, stated she did not think the automated plan of care was individualized and accessible and therefore not used:

> It is a dead document. …Dead as in it's not used.

> I think verbal communication is what many people rely on; it is hard to get information from the medical records. … So, there is not easily accessible information about the patient. When we identify someone at risk for fall, we need to talk more about the intervention that goes along with their risk for fall. Is it cognitive? Physical? A high score might not tell you why the person is at risk.

Signage

RNs and NAs both identified visual cues such as fall precaution signs, colored wristbands, and bed alarms set to "on" as methods for communicating fall risk and interventions for preventing falls. Visual cues were especially important to the NAs because of the absence or delay in receiving patient report. Some participants commented on the futility of signs because they were everywhere and staff became immune to them. In addition, the signs are generic without providing details about why a patient is at risk for fall or the specific actions that are needed to prevent a patient from falling.

For an hour or so at the beginning of a shift, you are dependent on the signs… like the falling star [a symbol used at 1 hospital and placed over the patient's bed to denote that the patient is at risk for falling]. The only way I automatically know the patient is on fall precautions is by the sticker is on the door. …If we have 35 patients on the floor and all but 10 are all on fall precautions, it's like everybody falls into that category. It does not give you enough information. …I will walk into a room. If a patient's call light is on, and they are at fall risk… I have to stop, because I don't know if they can get up alone. We find the nurse and discuss the patient—how safe they are to get out of bed with me… Do I need somebody else? You might see that sign, but that doesn't tell you …now the patient has to go to the bathroom really bad, but by the time I get out of the room and go find the nurse, the patient has gotten out of bed and fallen or she's now in the bed soaking wet. …I had a parent who had a stroke. I knew what she needed to transfer, but I feared that the information never got passed on to the nursing staff. So, I wrote on the board in the room, "Do not get my mother out of bed without her leg brace and quad cane."

Environment

RNs and NAs in each focus group spoke of environmental modifications and "common sense" actions that should be in place for all patients, for example, having an uncluttered room with a clear path to the bathroom and assistive devices nearby. Not all participants knew what supplies and equipment were available and/or how to obtain assistive devices.

If we needed an assistive device, we would consult PT or OT and usually they bring those. No, we don't actually know what is in the inventory. …If the patient has just TEDs on, definitely he is going to slide. So, you have to get slippers on. All the time when I see the patient without a slipper, I go there and tell them to wear slippers.

Teamwork

In all focus groups, RNs and NAs spoke of teamwork in several contexts: working together with their colleagues, covering each other's patients during breaks, providing surveillance by watching all patients in the hallway, and learning from and being helped by other healthcare providers, especially physical and occupational therapists. A few instances of not helping with a patient were shared, for example, stating that the patient's nurse should take care of the patient—then providing the reason of not knowing what to do with the patient. As one RN said,

When I (an RN) am walking down the hall and I see a call light on for a patient I don't know, I don't go in the room because I am afraid the patient will ask me for help to get out of bed or go to the bathroom and I won't know what to do.

Not responding to another staff member's patient's call light is a complex issue and shows an interface between signage and teamwork.

Involving Patient/Family

Continuing with the notion of surveillance, RNs and NAs stressed that both patient and family should be involved as part of the team fall prevention effort. Patients should be asked to call for help when they want to get up and one NA suggested saying,

Please don't get up without calling us; we are here for you.

How one NA worked with an elderly patient illustrates a patient/provider partnership by using dressy footwear for show (sitting) and wearing sturdy footwear for walking.

> She was a very fancy 90-year-old lady, and she wanted me to walk her—wearing pink slippers with a heel lift and a feather in the front. I said I am not going to walk you with that because if you fall, I am going to be in trouble.

The patient/NA compromised whereby the patient wore sturdy footwear while going to the bathroom and her fancy slippers when sitting in her chair.

Collaboration

"Not knowing the patient" and inadequate, incomplete, or incorrect information at the bedside were key factors that decreased the ability of RNs and NAs to prevent patient falls. NAs reported that they often did not have access to relevant information about fall risk and intervention plans unless nurses were available for verbal consultation. RNs identified the generic nature of the plan of care, the "siloized" patient record (both electronic and paper) and reliance on synchronous verbal exchange as factors that limited their ability to use a systematic approach to fall prevention. Participants reported that lack of detail about patient-specific risk factors and interventions sometimes leads to avoidance of answering call lights.

Summary

The positive components of the 6 concepts described above are integral to a fall protection program to safeguard hospitalized patients. If facilitators are strengthened and barriers are overcome (Table 1), patients should be prevented from falling. The 2 core categories, knowledge/communication and capability/actions, are depicted in Figure 1 and used to classify protective factors whose presence increases the likelihood of preventing falls.

Discussion

In our study, which is one of few studies of RN and NA bedside caregivers' views, insights were gained about barriers to overcome and facilitators to enhance fall prevention in acute care hospitals. Table 1 provides suggestions for policies and practices that could immediately be implemented, for example, knowing how to access equipment needed for a patient's fall prevention plan. Signage is another area that can be improved. The story of a nurse who would not answer the call light of a patient she did not know for fear of being asked to help the patient to the bathroom is sad, but her angst is understandable. Had there been a pictogram over the bed showing one nurse helping a patient to ambulate to the bathroom, the nurse would not have been afraid to help the patient. A variety of pictograms specific to patients' fall prevention plans could be used. Researchers could evaluate the use and effectiveness of pictograms.

The predictive model outlines strategies to promote a low likelihood of a patient fall, emphasizing the inclusion of all stakeholders to know the patient's risk status and carry out the plan. Fall risk assessment is a necessary but insufficient phase of a fall prevention program unless risk status is communicated to all stakeholders and guides an individual plan. Because the linkages between risk assessment and an individualized plan are not known, this is another area where research is needed. This project revealed some solutions to help nurse executives and provided suggestions for future research to solve the serious problem of falls in hospitalized patients.

Acknowledgments

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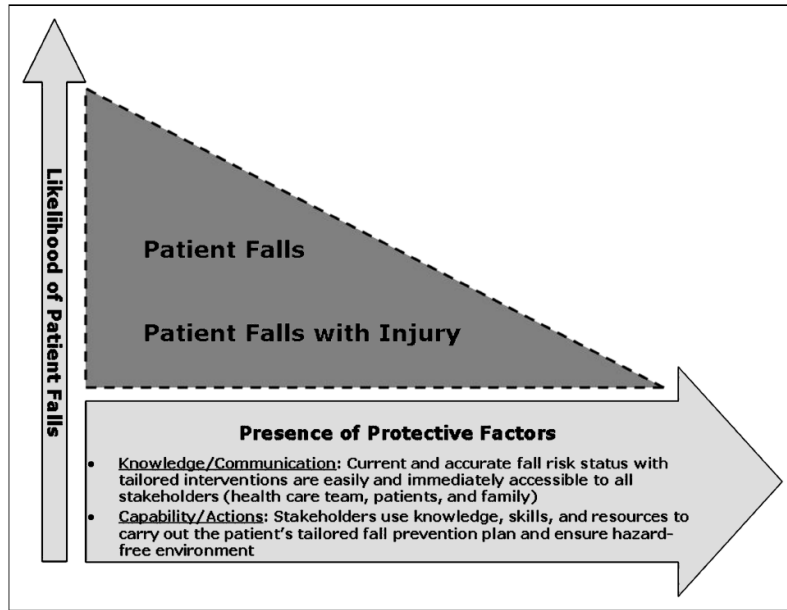
Figure 1.
Preventing patients from falling: a predictive model.

Table 1

Changing "Why Patients Fall" to "Preventing Patients From Falling"

Overcome Barriers	Strengthen Facilitators
Knowledge/Communication	
Providing care, including help with morning toileting, before receiving report	Receive accurate and timely report about patients' fall risk and what to do to prevent a patient from falling
Fall risk status and/or fall prevention plan is cumbersome and not accessible to all stakeholders	Easy access to up-to-date fall risk information and prevention plan for all providers and patient/family
Fall risk signs are too common and generic to be helpful	Obvious, unambiguous, individualized visual alerts
Capability/Actions	
Not knowing how to access needed equipment, eg, walker; environmental clutter	Personal effects and equipment nearby; furniture arranged to meet patients' needs; clear path to the bathroom
Not responding to a call light because of not knowing what to do if the patient wants to get out of bed or needs toileting	Staff working together as a team; answering any call light rapidly
Patients not following instructions given by staff, eg, to call for assistance to help get out of bed or to walk to the bathroom	Working with families and visitors to carry out the fall prevention plan