BARRIERS OF FALL RISK ASSESSMENT AND PREVENTION IMPLEMENTATION IN HOSPITAL SETTING

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Abstract

Falls are the most worrying incidence of patient safety concern that have an impact on injury and death. 1.9 to 3 percent of patients fall in the hospital, with injuries in 6 to 44 percent. Hospitals are making efforts to reduce those fall rates, but its implementation are hindered by a variety of barriers. This study aims to identify the barriers of fall risk assessment and prevention in the hospital. The research method is systematic review using PRISMA, with 15 included studies. Identified barriers includes insufficient knowledge, lack of motivation, absence of champion, lack of resources, inadequate communication, unsustainable program, and support and access shortage. To successfully implement fall prevention programs in hospitals requires a multifaceted, planned approach that includes: regular education and training for staff and patients; provision of equipment; audit, reminders and feedback; leadership and champions; simple programs; and a framework and time for adaptation in the hospital.
Keywords: barriers, fall risk assessment, fall prevention, hospital

Abstrak

Kejadian jatuh adalah insiden keselamatan pasien paling mengkhawatirkan yang berdampak pada cedera dan kematian. 1,9 hingga 3 persen pasien jatuh di rumah sakit, dengan cedera pada 6 hingga 44 persen. Rumah sakit berusaha mengurangi tingkat kejadian jatuh, tetapi implementasinya terhalang oleh berbagai hambatan. Penelitian ini bertujuan untuk mengidentifikasi hambatan penilaian risiko dan pencegahan jatuh di rumah sakit. Metode penelitian adalah peninjauan sistematis menggunakan PRISMA, dengan meninjau 15 studi. Hambatan yang teridentifikasi meliputi pengetahuan yang tidak memadai, kurangnya motivasi, tidak adanya "juara", kurangnya sumber daya, komunikasi yang tidak memadai, program yang tidak berkelanjutan, dan dukungan serta kekurangan akses. Untuk berhasil menerapkan program pencegahan jatuh di rumah sakit memerlukan pendekatan yang multifaset dan terencana yang meliputi: pendidikan dan pelatihan reguler untuk staf dan pasien; penyediaan peralatan; audit, pengingat dan umpan balik; kepemimpinan dan juara; program sederhana; dan kerangka kerja dan waktu untuk adaptasi di rumah sakit.

Kata kunci: hambatan, penilaian risiko jatuh, pencegahan jatuh, rumah sakit

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Introduction

Falls are defined as "an untoward event which results in the patient coming to rest unintentionally on the ground or other lower surface" and are a common and preventable complication that occurs in a hospital setting. Falls may result in extended treatment or serious psychological or physical morbidity, or death not only in elderly, but also hospital patients that are already in a weakened state.[1] Admission to hospital is often associated with a change in physical or cognitive condition, which when combined with unfamiliar surroundings presents a high risk for falls.[2]

According to World Health Organization, globally, falls are a major public health problem. An estimated 646.000 fatal falls occur each year, making it the second leading cause of

unintentional injury death, after road traffic injuries. Over 80% of fall-related fatalities occur in low- and middle-income countries, with regions of the Western Pacific and South-East Asia accounting for 60% of these deaths. In all regions of the world, death rates are highest among adults over the age of 60 years. Though not fatal, approximately 37.3 million falls severe enough to require medical attention occur each year. Such falls are responsible for over 17 million DALYs (disability-adjusted life years) lost. The largest morbidity occurs in people aged 65 years or older, young adults aged 15–29 years and children aged 15 years or younger.[3]

Given the compromised nature of individuals who are in hospital settings, falls often lead to other complications, such as fractures, lacerations, and/or significant internal bleeding. Thus, they increase overall healthcare utilization in a hospital system, drive up costs and adversely affect patient outcomes when a patient is admitted to a hospital. The average increase in the length of stay for a patient after a fall has been estimated to be 12.3 days. This leads to an average cost increase of 61%.[4] In the United States, it is predicted that the total number of falls resulting in injury will be 17,293,000 by the year 2020 at a projected cost of USD 85.37 billion per year. Given the rapidly aging population, this problem is projected to only increase in the future. Thus, preventing falls represents an important area of hospital care that needs to be addressed to deliver clinically and cost-effective care.[4,5]

In Indonesia data related to the incidence of the patient falls according to a report from the congress XII PERSI on 2012 shows that the incidence of the patient falls includes in the top three of hospital medic incidence and ranks

second after medicine error. Data from the report shows that as many as 34 cases or equivalent 14% incident fell in Hospital in Indonesia. This matter proves that the incidence of the patient falls still high and still far from the accreditation standard states for the incidence of falling patients is expected not in hospital or 0% incident.[6]

Although there are many interventions proposed for fall prevention depending on the patient population, the initial step for virtually all of these programs is the fall risk assessment, which is performed to identify persons at highest risk upon whom to target specific interventions. Fall risk assessment, however, is not standardized within or across settings. Traditionally, three types of assessments relevant to falls and mobility have been done, usually on the basis of setting or specific discipline factors. These include (i) comprehensive medical assessments performed by geriatricians or nurse practitioners in the outpatient or nursing home setting, (ii) nursing fall risk assessments completed in hospital and nursing home settings, and (iii) functional mobility assessments completed by physical therapists or physicians in an outpatient setting.[7]

The nursing assessment of a patient's risk of falling has been widely performed in hospital and nursing home settings for several decades and typically employs specific screening instruments or forms. These instruments [e.g., Morse Fall Scale, STRATIFY, Resident Assessment Instrument (RAI), Fall Risk Assessment Tool, Hendrich Fall Risk Model, High Risk for Falls Assessment Form, or Royal Melbourne Hospital Risk Assessment Tool identify who is likely to fall on the basis of intrinsic or medical characteristics of the patient

(e.g., psychological status, mobility dysfunction, fall history, elimination frequency/dependence, acute/chronic illnesses, and sensory deficits). These instruments are most widely used by nurses upon admission to a hospital or long-term care facility and are periodically updated (e.g., per shift, daily, or weekly) depending on the acuity level of the patients. Because of the frequency of use, these tools tend to be short and do not require intensive assessment of the patient. Poor scores tend to trigger either further assessment or anticipatory nursing interventions (e.g., staff routinely provides assistance with toileting or out of bed activities).[7]

The implementation of those programs can be influenced by several factors including environmental and contextual issues; staff knowledge, beliefs and attitudes; organizational culture and climate; staff workloads; and access to appropriate equipment and resources.[8] An understanding of these factors can inform the development of an implementation plan that addresses the barriers and facilitators to the implementation of the assessment.

There is limited information about the barriers to the implementation of fall risk assessment and prevention in hospitals. Therefore, the aim of this systematic review is to identify the key factors that act as barriers to the effective implementation of fall risk assessment and prevention implementation in the hospital setting.

Methods

This study used a systematic review based on the PRISMA protocol (as shown in figure 1). The literature search was conducted on November 1 to November 8, 2017. Restriction of the search includes the availability of complete and articles.

Result

Figure 1 shows the study flow, the initial search criteria yielded 1282 potential papers. 1260 articles were excluded because the title was not suitable with the review objectives. 2 duplicates were then excluded and following the completion of screening, a total of 15 studies were included in the systematic review.

Table 1 shows the included studies methodology, variables, and analysis results of each articles. A multitude of different methods of analysis had been obtained from the studies. Six studies [9,14,17,19,21,22] used descriptive analysis, five studies [10,11,12,18,23] were clinical trials, two studies used systematic analysis [13,20], one was a cross sectional study [15] and one described by the authors as prospective qualitative survey [16].

From these studies we have managed to categorize seven practical considerations that is considered as barriers for the fall risk assessment and prevention program implementation: (1) insufficient knowledge, (2) lack of motivation, (3) absence of champion, (4) lack of resources, (5) inadequate communication, (6) unsustainable program, (7) support and access shortage.

All but one study (93%) cited knowledge as an important factor of fall risk assessment implementation. In seven studies (47%), lack of resources in the form of staff, equipment, finance and time, greatly diminishes fall assessment and prevention programs success in the hospital. Five studies (33%) mentions motivation and concern or empathy, whether from hospital staff, or patients and their family, while three studies (20%) emphasize the need

of a champion as a leader, motivator and auditor or give feedback to the staff in each unit for the success and continuity of the program. Inadequate communication and coordination – between staff or staff to patient – is also mentioned in three studies (20%), as is an unsustainable program/system and cultural or environmental support and access shortage.
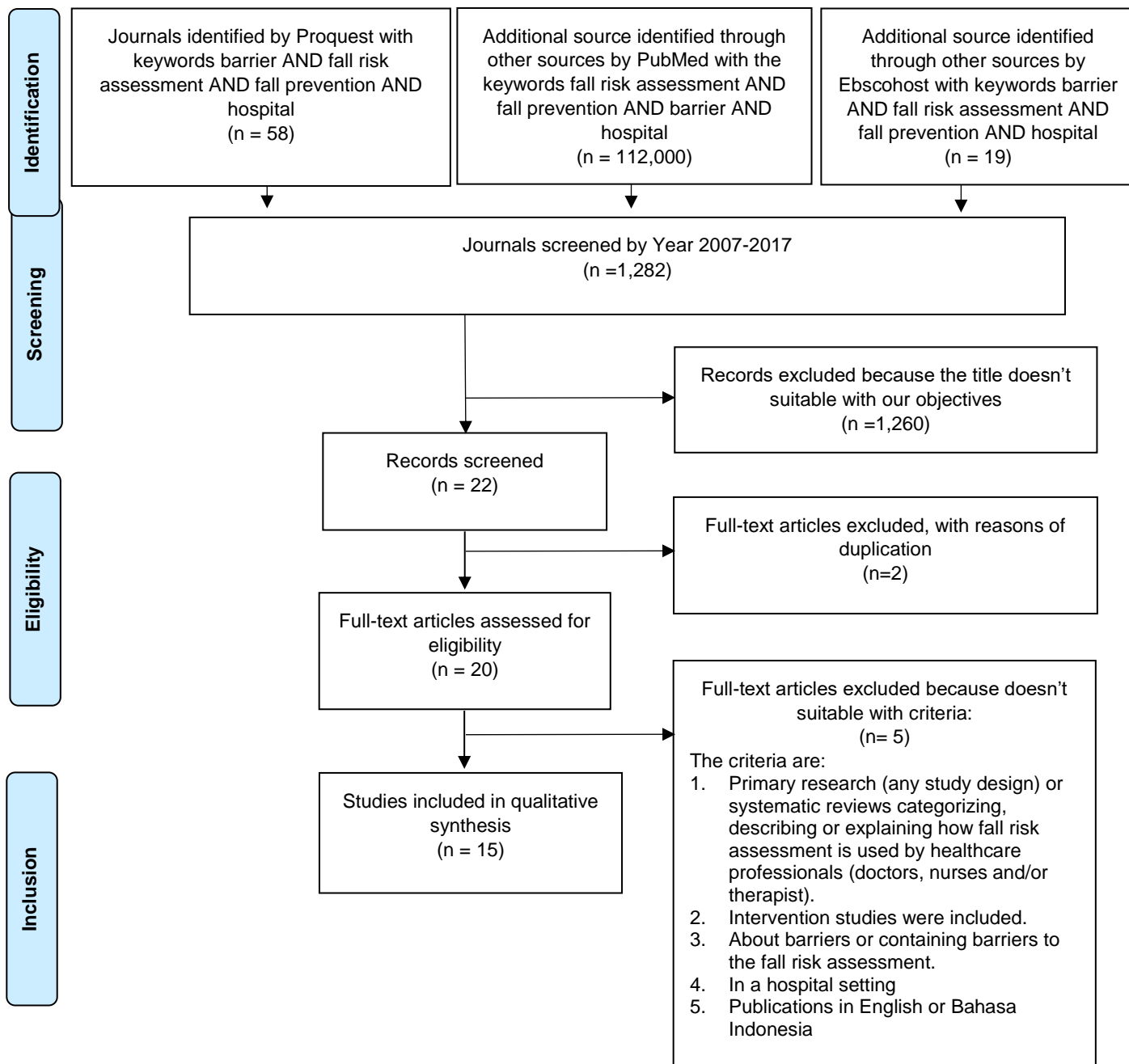
Identification

Journals identified by Proquest with keywords barrier AND fall risk assessment AND fall prevention AND hospital
(n = 58)

Additional source identified through other sources by PubMed with the keywords fall risk assessment AND fall prevention AND barrier AND hospital
(n = 112,000)

Additional source identified through other sources by Ebscohost with keywords barrier AND fall risk assessment AND fall prevention AND hospital
(n = 19)

Screening

Journals screened by Year 2007-2017
(n =1,282)

Records excluded because the title doesn't suitable with our objectives
(n =1,260)

Records screened
(n = 22)

Full-text articles excluded, with reasons of duplication
(n=2)

Eligibility

Full-text articles assessed for eligibility
(n = 20)

Full-text articles excluded because doesn't suitable with criteria:
(n= 5)
The criteria are:
1. Primary research (any study design) or systematic reviews categorizing, describing or explaining how fall risk assessment is used by healthcare professionals (doctors, nurses and/or therapist).
2. Intervention studies were included.
3. About barriers or containing barriers to the fall risk assessment.
4. In a hospital setting
5. Publications in English or Bahasa Indonesia

Inclusion

Studies included in qualitative synthesis
(n = 15)

Figure 1. Study section flow diagram, adopted from PRISMA

Table 1. Overview of the Included Studies

No	Article Title	Authors	Research Method	Analysis
1.	Barriers and enablers to the implementation of the 6-PACK falls prevention program: A pre-implementation study in hospitals participating in a cluster randomized controlled trial (9)	Ayton, Darshini R. et al	Descriptive	Complex patient handling, Belief that fall is unavoidable, environmental layout Lack of resources and supporters Lack of ownership
2.	Improvement of Physical Therapist Assessment of Risk of Falls in the Hospital and Discharge Handover Through an Intervention to Modify Clinical Behavior (10)	Thomas, S., Mackintosh, S.	Time series crossover clinical trial	Lack of involvement Late adoption of project Timing of the project.
3.	Fall Prevention in Acute Care Hospitals: A Randomized Trial (11)	Dykes, Patricia C. et al.	Cluster Randomized Trial	Lack of knowledge Lack of motivation Imperfect program
4.	Prevention of falls in acute hospital settings: a multi-site audit and best practice implementation project (12)	Stephenson, Matthew, et al.	Time series crossover clinical trial	Lack of staff education
5.	Factors influencing the implementation of fall-prevention programmes: a systematic review and synthesis of qualitative studies (13)	Sue Child, Victoria Goodwin, Ruth Garside, Tracey Jones-Hughes, Kate Boddy dan Ken Stein	Systematic review	Type and delivery of programs Support from the environment and professionals Concordance of patients
6.	Fall incidence and fall prevention practices at acute care hospitals in Singapore: a retrospective audit (14)	Koh, SSL., et al.	Descriptive: retrospective audit of medical records	Lack of knowledge Better program
7.	Nurses' perceived barriers to the implementation of a Fall Prevention Clinical Practice Guideline in Singapore hospitals (15)	Serena SL Koh, Elizabeth Manias, Alison M Hutchinson, Susan Donath and Linda Johnston	Cross-sectional	Lack of knowledge and education Lack of motivation from staff Lack of change of champion availability Lack of access from facility sources.
8.	'My independent streak may get in the way': how older adults respond to falls prevention education in hospital (16)	Hill, Anne-Marie, et al	Prospective qualitative survey	Lack of individual education Lack of involvement
9.	Fall-Risk Evaluation and Management: Challenges in	Mary E. Tinetti, MD, Catherine Gordon, RN, MBA, Ellen	Descriptive	Time limitation Lack of knowledge and expertise Lack of coordination

	Adopting Geriatric Care Practices (17)	Sogolow, PhD, Pauline Lapin, MHS, Elizabeth H. Bradley, PhD		Financial concern and reimbursement The potential for increased costs Concerns about misuse and fraud Financing & time limitation Complex financial structure
10.	Additional exercise for older subacute hospital inpatients to prevent falls: benefits and barriers to implementation and evaluation (18)	Terry P Haines, Keith D Hill, Kim L Bennell, Richard H Osborne	Randomized controlled trial, subgroup analysis	Unwillingness of patients Clashing of schedule
11.	Nurses' Caring Attitude: Fall Prevention Program Implementation as an Example of Its Importance (19)	Huey-Ming Tzeng, PhD, RN	Descriptive	Lack of knowledge Lack of awareness
12.	Hospital Fall Prevention: A Systematic Review of Implementation, Components, Adherence, and Effectiveness (20)	Hempel, Susanne, et al	Systematic Review	Gradual slowing of such interventions in clinical practice, Falling risk assessment tools that cannot be maintained or applied systematically Failure to educate new staff
13.	Fall TIPS: Strategies to Promote Adoption and Use of a Fall Prevention Toolkit (21)	Dykes, Patricia C., et al	Descriptive	Lack of communication Markers that are too general and often overlooked Information that is not communicated to patients or offenders
14.	Use of a Wireless Nurse Alert Fall Monitor to Prevent Inpatient Falls (22)	Jorge Diduszyn, MD, Mary T. Hofmann, MD, Mary Naglak, PhD, and David G. Smith, MD	Descriptive	Identification of patients at risk of falling less Education and introduction of tools / programs that are inadequate to both medical staff and patients Long program activation time
15.	Impact of a fall prevention programme in acute hospital settings in Singapore (23)	Koh S L S, Hafizah N, Lee J Y, Loo Y L, Muthu R	Experimental	Lack of revision or renewal of prevention policy falls The need for regular champion changes Lack of educational sessions The absence of a system of reminders or identification Lack of regular audit or feedback

Discussion

This review reports an analysis of barriers in implementing fall risk assessment and prevention in the hospital setting. Guideline implementation may be influenced by an understanding of the local barriers to change in hospitals to assist in the process of selecting and more appropriately target implementation strategies locally. Advocates for an evidence-based approach to guideline implementation have advised that prior to choosing one or more interventions, decision-makers need an understanding of the target group and setting and potential facilitators of, and barriers to change.[24] The results of our review will inform the development of implementation strategies targeting the barriers of fall risk assessment and prevention practice.

Insufficient knowledge

Nearly all the studies mentioned lack of knowledge as the main barrier for the implementation of the fall risk assessment and prevention program. The expanding body of research and the increasing emphasis on evidence-based practice make it difficult for any practitioner to be aware of, familiar with, and able to critically apply, every applicable guideline to practice.[9] But improving knowledge and skills through training and education sessions were identified as enablers to falls prevention practice. These included education and training to address skills, knowledge and beliefs of medical staff. [9,22,23]

A survey of 1830 nurses to identify barriers to implementing fall prevention Clinical Practice Guidelines found that the highest barrier (83%) for care providers was knowledge and motivation.[14] Hospital staff especially nurses identified the specific need for education on the management of patients with high risk of falls.[9,10,20] Senior staff highlighted the need for training on how to connect fall-risk tool scores to appropriate interventions.[11] Specific barriers were lack of knowledge and skills in fall management, lack of training, lack of falls education materials such as booklets, pamphlets, posters, or videos to educate staff and older people on fall prevention.[9,10,18,20,21]

Three studies also emphasize the need to educate the patients and their family. Most fall prevention education is delivered to the patient verbally. In previous studies, the idea of giving out leaflets pertaining to fall prevention was being intended as reinforcement for older people. However, older people have reported that information and verbal advice is non-specific and impractical.[16;17;18]

Dykes et al., (2009) in their study uses the fall prevention tool kit (FPTK) which its major component is the over-bed poster and the patient/family education handout. They found that patients aged 65 or older benefited most from the FPTK (adjusted rate difference, 2.08 [95% CI, 0.61-3.56] per 1000 patient-days; P=.003).[21]

This is consistent with previous studies that have highlighted the importance of knowledge. The recommendation from a small qualitative study was that site and

patient specific knowledge are needed for nurses in regard to falls prevention and use of restraint.[25] These studies showed that context-specific fall prevention knowledge is an important precursor to good fall prevention practice. An integrative review identified that nurses use colleagues for much of their tacit knowledge for assessment and clinical care.[26]

Lack of motivation

As highlighted by Tzeng (2011), staff engagement is important and can be facilitated through `engaging hearts and minds' both the emotional and logical aspects of falls prevention. Nurses described feeling `guilty', `stressed' and `distressed' when a patient under their care experienced a fall. They also described the `worry' experienced if a patient suffered a fall-related injury. The emotional impact of a patient fall was seen as something that could be a motivating factor. A senior staff member at one hospital highlighted that nurses responded to interventions that emphasised the benefit to the patient. This also had implications for sustaining the project long term.[10,15,19]

A motivator identified by senior staff was to harness the emotional impact of falls, for example through `story telling' of falls incidents at handover. Case studies with patient stories and experiences of falls may also prove powerful in highlighting the need to address in-hospital falls in education sessions. A challenge to motivation is complacency in falls prevention practice.

The acute setting is a crowded landscape of patient safety initiatives that can compete for the attention and time of nurses. Previous research has described the phenomenon of `missed care' or `unfinished care' where nurses can find it difficult to achieve all their tasks in caring for a patient. This can lead to adverse patient events such as falls.[9;20]

Incident reporting has also been identified as a
useful approach to change the attitudes, perceptions and practice of staff and promote engagement in patient safety initiatives barrier to motivation identified is the lack of ownership for falls prevention. Senior staff stated that falls prevention should involve a multidisciplinary team approach and is everyone's responsibility.[15]

Absence of champion

Leadership, including the establishment of champions for falls prevention was identified as a key enabler for practice change. Leaders were identified by staff as playing a critical role in providing guidance and support to those less experienced, and to develop and promote standardised practices in terms of implementing falls prevention interventions. Nurses were either neutral (35%) or agreed (42%) that there was strong leadership support for falls on their ward and that their supervisors have assisted them when issues of falls have been raised (64%).[10]

Senior staff reported that the champions has a critical role in falls prevention. Champions were identified as a practice change strategy for other projects including infection control,

pain management and wound care. They were able to provide a link between committees, senior management and the ward staff and provide education and support while on the wards. Senior staff emphasised that the key to a successful champion is finding staff who have "the passion for falls and wants to make a difference to patient care" and willing to push the agenda of falls prevention on the wards. One staff member described champions as `resource people'.[10]

Previous studies that emphasizes leadership, notes that it is both an opportunity and motivation strategy and was recognised as important by both nurses and senior staff. Champions were identified as key individuals in the implementation and sustainability of falls prevention interventions. The need for leadership and champions has been reported as an important implementation strategy in the literature. A study in the United States over three years demonstrated a decrease in the total number of falls.[27] In that study, the Helping Hands programme, falls champions were utilised to educate and engage nurses to undertake best practice for falls prevention. The programme began with staff education and over the three years introduced six more falls prevention measures, such as shift-change handovers and post-fall huddles to discuss patient safety and ensure continuity of care

To promote continuing engagement in strategies and to assist in care prioritisation, senior staff and nurses highlighted the importance of regular audits, reminders and feedback. Audits, reminders and feedback are generally an effective approach in guiding the implementation of an intervention. Providing data to demonstrate the extent of the problem of falls on wards and to benchmark progress was another strategy identified by participants.[23]

Lack of resources

Lack of resources in the form of facilities and equipment such as bed alarms,[15,17] and low beds,[9] is stated as barriers to the implementation of fall prevention practice guideline. Lack of resources because of tight budgets and restrictions to additional resources also become a barrier of implementation of fall risk assessment.[15]

Intervention to modify clinical behaviour of physical therapists[10] show that the intervention that they have done was successful to improve management of risk of falls but may not be possible in the future because of the funding, time, and training. It is also mentioned that the time required to perform the total package of currently recommended preventive services in primary care is prohibitive. In clinical encounters, pressing problems, such as exacerbation of congestive heart failure, usually take precedence over preventive issues. Fall-related interventions such as checking and managing postural blood pressure and medication review and adjustment are particularly time consuming. National Committee for Quality Assurance described fall-risk evaluation and management is not yet a focus of quality assurance initiatives that encourage or mandate attention to specific health

conditions even in the face of limited time and competing demands in clinical encounters.[17]

Whether accurate or not, reimbursement for fall related clinical activities is perceived by the relevant health care provider groups as inadequate; inadequate reimbursement is considered a disincentive for providing fall-risk evaluation and management evaluation and management could be considered a preventive service for which coverage must be specified. On the other hand, although fall prevention per se is not covered, the evaluation and management of contributing conditions and the treatment of individuals who have already fallen are services covered at least to some extent. Even when the issue of prevention versus treatment is resolved, there are still financial barriers.

According to Child et al, thirteen studies discuss the economic costs involved in the implementation of fall-prevention interventions. Multiple journal in Child's systematic review mention that for the individual, there may be financial costs associated with the purchase of assistive devices and transportation to and from fall-prevention interventions (such as exercise classes), alongside fees for attendance. It would appear to be an overriding assumption that all community-dwelling older people have the financial means to participate fully in fall-prevention interventions, yet according to Child this may not be the case, and the types of financial costs considered above may be prohibitive and serve as barriers to attendance. However, there appeared to be a general

consensus amongst older people that the cost of an intervention was not perceived to be a barrier to participation, as long as the cost was 'reasonable' enough.[13]

Inadequate communication

Variable communication was identified as a major barrier to the collaboration and teamwork that participants said was needed to prevent patient falls. "High risk for fall" signs were routinely hung in patient rooms to alert caregivers of a patient's risk status. However, nurses and paraprofessional caregivers reported that these signs were too common and too generic to be useful. Even when a fall prevention plan did exist in the patient record, this information was not available to all caregivers or patients at the bedside. Neither nursing assistants who may provide care before receiving report nor family members who often spend a great deal of time with patients had access to the patient's fall prevention plan. Therefore, they did not know how to assist the patient with routine activities such as toileting or what they could do to prevent falls.[11]

Bradley in Tinetti et al mentioned that even when providers are willing and able to perform fall-risk evaluation and management, the fragmentation of care among providers and across settings is a barrier to effective patient care. Fall-risk evaluation and management requires coordination and referral among several providers with complementary skills, including physicians, home care nurses, physical therapists, and occupational therapists. The more components and providers involved, however, the harder it is

and the longer it takes for practice changes to diffuse. Inadequate awareness of the skills of other provider groups exacerbates the difficulty; the roles of physical therapists and occupational therapists, in particular, are poorly understood by some providers. As a result, for instance, home care nurses may not recognize that some individuals might benefit from rehabilitation, and medical providers may fail to prescribe these services. The challenge of coordinating patient care among health care providers is compounded by the need to coordinate such care between health care and non-health care settings. (17)

Defective program

Diduszyn J, et al, (2008) used a bed alarm system for the fall prevention. An interesting finding of this study is that most patients who fell (87%) were not using a bed alarm. And despite educational efforts on all 3 shifts, many nurses indicated that they were unaware of the availability of the alarm system or chose not to use it because of inexperience or lack of familiarity with its use. It should also be noted that when the nurses were asked whether the patient was able to operate the call bell system to ask for help, 44% responded that their patients seemed to be able to operate it; however, 80% did not operate the call system to ask for help before the bed alarm went off. This indicate a program no matter how high tech if not properly socialized to the staff and patients is useless.[22]

Earlier studies note the interaction between the adopter (clinician) and innovation affect the sustainability of change. Adopter traits of motivation, intelligence, tolerance of ambiguity and compatibility of values have been found to be associated with the successful adoption of innovations.[28] Greenhalgh, Robert, MacFarlane, Bate and Kyriakkidou (2004) described features of an innovation which help make change possible.[29]

As well as the debate on the appropriate sensitivity and specificity of risk assessment tools and whether a single figure indicating risk of falling gives sufficient information, there are three areas relating to the adoption of a tool in the context of a health organisation which are included in this review. They are the goal for falls reduction, specifically to zero falls, and two examples of operationalization of the tool, the "hard core, irreducible elements of the innovation".[11,20,23] The examples are whether any tool is accurate enough to use across all specialities and whether it is accurate over the length of a patient's admission. Therefore, a simple and easily adapted programs is necessary to address this barrier.

Support and access shortage

Motivators for change within organisations include statistics such as those indicating high numbers of preventable falls, and mandates from government or funders which incentivise management to improve patient safety. Models for organisational development state that people at all levels of the organisation have to be prepared for an innovation before it is introduced, require multilevel support and targeting of barriers for its implementation, have to be able to

adapt the innovation to the locality, need to monitor the effect of the innovation and that good resourcing is crucial.[1,29,30] Barriers arise when any of these factors are not taken into consideration. Scott et al. (2003) warn that planned top-down change can have dysfunctional consequences which may adversely affect patients, but Greenhalgh et al. (2004) point out that these can increase the success of adoption providing that the resourcing is good and that there is capacity within the organisation.[29,30]

Another approach to the adoption of an innovation is by the employment of cultural change models. Cultural change is facilitated by a different leadership style compared to structural change in an organisation.[30] The provision of rewards, such as monetary incentives, by management when structural goals are achieved is transactional leadership. On the other hand, transformational leadership, used for cultural change, is a relationship based on working together towards jointly-held goals.

Time for the adopter to interact with, learn about and become competent in its use, is essential for an innovation to become effective. A lengthy time will allow for embedding of practices after the initial launch and promotion period of a new preventive regime. An organisation can help with the development of competency through good resourcing for training, coaching and performance assessment. During this time indicators are required to monitor progress towards the goals and provide feedback.[24]

Conclusion

This study identified barriers to the implementation of fall assessment and prevention programs in a hospital setting. Barriers identified included insufficient knowledge, lack of motivation, absence of champion, lack of resources, inadequate communication, unsustainable program, and support and access shortage. To address those barriers, successful falls prevention program implementation in hospitals are likely to require a multifaceted, planned approach that includes: regular practical education and training for hospital staff and patients; provision of equipment; audit, reminders and feedback; leadership and champions; simple and easily adapted programs; and a sufficient framework and time for adaptation in the hospital organisation and society.

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