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A High Fall Risk Patient Perspective—Reducing Safety Challenges in an Acute Care Hospital

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ABSTRACT

Aims: This study examined patient perspectives of the factors that contributed to their falls in a medical ward and how patient understanding of the implemented fall prevention strategies influenced their perceptions of their fall risk.

Design: An exploratory sequential mixed methods design.

Methods: Quantitative data were obtained from the RiskMan fall database and auditing of the Patient-Centred Care Plan to identify patients who experienced a fall on the ward. From this cohort, seven inpatients were interviewed using a structured interview questionnaire to explore their perceptions of why they fell. Other complexities of fall management in the ward were discussed, including the assessment and identification of high fall risk patients and the effectiveness of patient education.

Results: Five contributing factors were seen to have led to inpatient falls in the medical ward: (1) there seems to be little, if any, patient engagement with the advice in the fall prevention brochure distributed on admission; (2) insufficient patient awareness of the various fall prevention strategies; (3) inadequate bathroom supervision provided by nurses; (4) patient call bells not answered promptly, which encouraged patients engaging in risk-taking behaviour and (5) a breakdown in communication between nursing staff and patients. The study identified several factors that should be included in fall administrative data, such as the duration of call-bell response, the quality of nurse–patient communication and the determinants influencing patient response to fall prevention strategies. The study findings offer valuable insights to enhance the efficacy and implementation of fall prevention strategies to improve patient outcomes.

Patient Contribution: Patients who had experienced a fall during their current hospital admission were interviewed. For each patient, the interview was a communication medium to explore the factors surrounding the occurrence of their fall and their knowledge of their fall risk.

1 | Introduction

Hospital falls are a significant safety challenge worldwide. The World Health Organisation (WHO) reported that 37.3 million falls require medical attention each year, and 684,000 people die from falls worldwide (WHO 2021). Preventing falls has become an international and Australian safety and quality priority (Montero-Odasso et al. 2022; Bennett et al. 2014), particularly in acute care hospitals (Khalifa 2019). The Australian Commission on Safety and Quality in Health Care (ACSQHC 2009) developed three separate best practice guidelines for the community, hospitals and residential aged care facilities, to standardise and improve national safety and quality of healthcare to reduce falls and injuries resulting from falls. Significant efforts have been made by organisations and clinicians (doctors, nurses and other healthcare professionals) to decrease inpatient falls and injuries

related to falls. Despite this, the number of falls continue to rise, and in 2019–2022, there was a 2% increase in patient admissions to Australian hospitals due to a fall, with 224,000 hospitalisations and 5300 deaths (Australian Institute of Health and Welfare 2022).

Hospital databases do not record patient perspectives of what may have caused their fall. Montero-Odasso et al. (2022) highlighted that the fall experience of patients is not often taken in account and the patient's viewpoint should be incorporated in fall prevention. The patient perspective, in this research study, was integrated with administrative fall data to clarify the reasons behind falls and the increase in inpatient falls. So, the aim of this study was the exploration of the viewpoints of patients to provide a more complete understanding of the different factors that contribute to falls and investigate the way/s in which hospital systems could better record that data for nursing staff, nurse unit managers and allied health professionals to provide better support.

2 | Background

Falls in acute care hospital settings produce poor outcomes for older patients, as they can cause spinal cord injuries (Cao et al. 2020) and fractures, and often lead to morbidity and mortality (Zhao et al. 2019). Injuries from fractures, head trauma and hip fractures lead to a decline in the functionality, mobility and quality of life of older patients (Ghaffari-Fam et al. 2015). Serious injuries may necessitate surgical interventions, such as craniotomy for haematoma evacuation, tracheostomy, central venous access and endotracheal intubation (Ismail et al. 2020). Complications resulting from falls and underlying procedures include sepsis, pneumonia, cardiac arrest, acute kidney failure, urinary tract infections and circulatory shock (Ismail et al. 2020).

Injuries from falls may increase the prospect of older patients requiring admission to an aged care facility (Gratza et al. 2019). In addition, the psychological effects, such as patient anxiety and fear of falling may increase dependency on family members and limit independent living (Gustavsson et al. 2018; Pereira et al. 2020). Consequently, the safety challenges for older patients in acute care hospital settings have led to worldwide interest in fall prevention (Lackoff et al. 2019), and the reason for this study.

Patients have a critical role in their own care. Improving staff education in identifying the risks of patient falls can lead to older patients having a better understanding of their fall risk and safety (Rheaume and Fruh 2015). Falls could be reduced through one-on-one patient education with cognitively intact patients, by setting goals and modifying activities to suit their needs (Haines et al. 2012). Similarly, Heng et al.'s (2020) review of patient education reported an association between patient outcomes and quality of education by nurses. As a result, inpatients should be informed as well as encouraged to make choices that reduce risk-taking behaviours and enhance their relationship with the healthcare professionals (Shaw et al. 2023). Patient feedback from this investigation could provide insights into the shortcomings of current acute care hospital systems and put forward strategies on how falls can be minimised and possibly prevented. Also, the findings from this study could better inform nursing staff of the contributing factors to inpatient falls and the particular characteristics that influence older patient's response to fall prevention strategies. The patient point of view was integrated with administrative fall data to identify and further analyse the range of reasons for fall incidents and why inpatient falls continue to increase.

3 | Method

An explanatory sequential mixed methods design put forward by Creswell and Creswell (2023) was chosen for this study to help develop a comprehensive understanding of the underlying issues surrounding patient falls. The quantitative data collection and analyses occurred first (Creswell and Creswell 2023) and contributed to addressing the research aims; then in the next stage, the qualitative data explained the quantitative results and highlighted the critical issues by building directly from quantitative results (Liem 2018; Creswell and Creswell 2023).

It was used to develop specific patient interview questions from the quantitative data to aid qualitative data collection and provided a solid platform from which to interrogate the quantitative data during the analysis phase (Creswell and Creswell 2023).

Data collection proceeded in two distinct phases, the quantitative RiskMan fall data provided trends in administrative fall data, whereas the Patient-Centred Care Plan (PCCP) provided the nurses' assessment, documentation and implementation of six fall prevention strategies—alert sign, bed chair alarm, toileting regime, low-low bed, supervise bathroom and walking aid near patient. The second phase of qualitative patient interviews revealed an in-depth understanding of 'how' and 'why' falls occur in the medical ward (Creswell and Clark 2018; Fetters and Molina-Azorin 2017) and answered the research question, 'What do patients perceive to be the contributing factors that led to their fall in the medical ward and how does it affect their understanding of the implemented 6-PACK fall prevention strategies?' The findings from this research were part of a RiskMan Research Project for the acute care hospital to evaluate the effectiveness of their 6-PACK fall prevention program.

3.1 | Setting and Participants

The setting for this study was a medical ward in a major teaching hospital in Melbourne (Australia) and was selected because it had the highest number of serious injuries within the hospital. It comprised 28 mixed beds: four-stroke beds, 16 dementia-specific beds in a secure area, four dialysis beds and four general medical beds. The hospital and university ethics committees provided ethics approval.

The hospital administrative system (RiskMan) identified 30 patients who would be suitable to be interviewed because of their fall history. Thus, a purposive sample was employed to recruit

participants. Seven patients (23%) agreed to be interviewed: four were males aged 38–82 and three were females aged 41–73. The majority of patients had at least two of the following health conditions: diabetes, cardiovascular disease, renal disease or respiratory disease. They fell in a patient designated area of the ward, within their immediate environment at the bed, bedside chair or bathroom sink. Three patients fell while walking towards the bathroom toilet, whereas one fell in the bathroom.

Five patients were born in Australia and two overseas, and they spoke English. The patients were cognitively intact (orientated to time, place and person), and there was an appropriate representation of gender and age. There were similarities in their past medical histories, as they had either cardiac or respiratory conditions and some had multiple falls during their current admission. They were interviewed in their hospital rooms after their fall to seek their perspectives on why they believed they fell. Patients were de-identified and advised that they could withdraw from the study at any point without compromising any hospital care; no patients withdrew from the study.

3.2 | Data Collection

The data collection process had three distinct phases. Phase A collected administrative data from the RiskMan fall database that was de-identified:

i. History of falls

ii. Number of falls—location and cause of fall

iii. Age and gender

Phase B contained paper-based documentation from nurses— PCCP. Phase C collected qualitative data from patient interviews. Phases A and B assisted in formulating interview questions for patients, conducted over 2 months. Each patient was audiotaped, and the semi-structured interview questions allowed them the flexibility to provide specific insights into their individual implemented fall prevention strategies. Questions included the following:

- What do you think caused you to fall?

- Did you ask for assistance?

- What could have been done better to prevent your fall?

- Were you provided with the fall prevention brochure?

- Did you find the brochure helpful?

- Do you understand all the information presented in the fall prevention brochure?

- Do you have any suggestions to improve current practice, for example, the fall prevention brochure and current strategies for falls?

None of the patients required an interpreter, and significant others were given opportunity to present opinions at the end of the interview. The research included not only the patient perspective but also their carer or significant other.

3.3 | Analysis

Braun and Clarke's (2022) six-step reflexive thematic analysis framework was used to analyse the semi-structured patient interview responses. Data were examined several times, with notes taken of initial observations and insights into each interview, and then in relation to all the interviews. Interview information was coded and re-coded a number of times before classifications were refined to reveal five key themes, which were then integrated with the statistical data from RiskMan and the PCCP audits.

3.4 | Rigour and Trustworthiness of Research Data

Trustworthiness, validity and reliability are critical in confirming accurate and objective results and findings, as this can assist other acute care hospitals in improving patient fall prevention safety outcomes. An explanatory sequential mixed method design enriched the design quality by combining quantitative and qualitative methods to increase the data integration (Bedrettin 2018; Creswell and Creswell 2023). It provides consistent feedback and verification through various methods to attain quality (Forero et al. 2018).

The quantitative data from RiskMan and PCCP was crosschecked by the acute care hospital statistician, whereas the qualitative data were constantly reviewed and sorted by the researcher and supervisors to ensure accuracy. It was essential for this study that the RiskMan fall data and the PCCP audit were accurate because the combination of both data sources provided a more comprehensive picture of falls in the medical ward.

4 | Findings

The administrative fall data (RiskMan) showed that of 371 patients, 53.1% (197) had a history of a fall, which suggests that they had a fall during their present hospital admission, were admitted following a fall or had fallen within the last 12 months. The RiskMan data also indicated that most falls were caused by falling from a bed (33%) or chair (21%), standing and walking (18%), and going to the toilet (6%) and bathroom (5%) (Figure 1).

However, some findings contradicted information provided by the hospital administrative system (RiskMan) and nurse audit (PCCP). Some patients reported that they had not been provided with a fall prevention brochure, bathroom supervision was inadequate, deficient communication between nurses and patients and, most importantly, some risk-taking behaviours by patients were not picked up in the database.

The demographic data of the participants are provided in Table 1.

In the data analysis, five key themes emerged: the fall prevention brochure, insufficient patient awareness of fall prevention strategies and bathroom supervision, delay in responding to patient call bells, patient risk-taking behaviour and communication breakdown between the nurse and patient. Although five participants were over 60 years of age, there were two patients
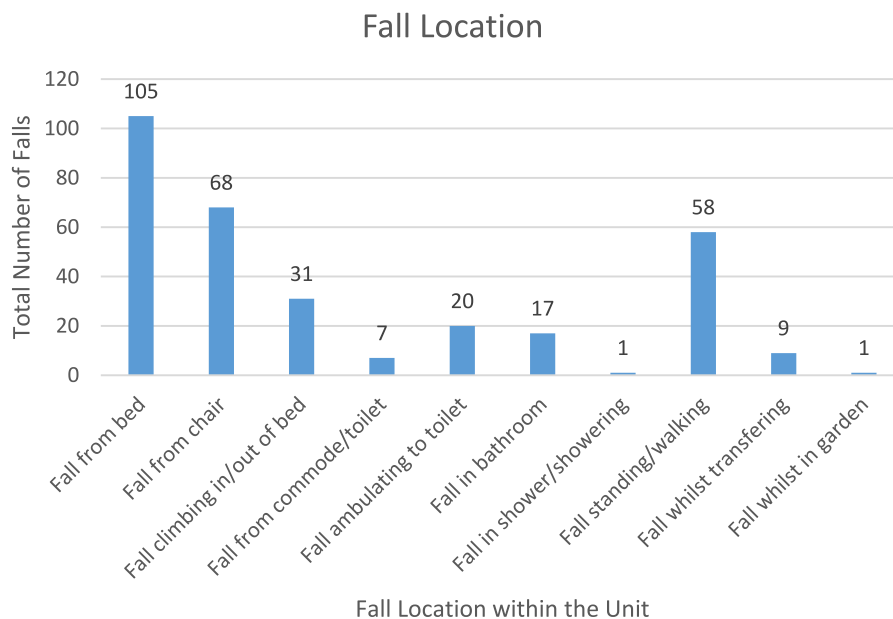
Fall Location

FIGURE 1 | RiskMan fall location data.

TABLE 1 | Participant demographic data.

Patient number	Age	Gender	Past medical history	Location of the falls
1	60	Male	Morbid obesity, ex-smoker, alcohol use, type 2 diabetes mellitus, congestive cardiac failure, ischaemic heart disease, chronic kidney disease, atrial fibrillation, lower limb cellulitis, chronic pain lower back/knee secondary to osteoarthritis, total knee replacement	Walking to the toilet
2	84	Male	Ischaemic heart disease, congestive cardiac failure, hypertension, type 2 diabetes mellitus, gastro-oesophageal reflex disease, depression, vertigo, migraines, ex-smoker	Fall in the bathroom
3	38	Male	Congestive cardiac failure, influenza virus—H1N1, acute renal failure—dialysis	Walking to the toilet
4	64	Female	Asthma, chronic obstructive pulmonary disease, hypertension, cholecystectomy	Fall from the bed
5	73	Female	Total thyroidectomy, migraine, psoriasis, asthma, chronic obstructive pulmonary disease, depression, hypertension, sleep apnoea, iron deficiency, cholecystectomy	Walking to the toilet
6	41	Female	Fibroids uterus, C-section, spasms for investigation	Fall from chair
7	82	Male	Ischaemic heart disease, aortic valve replacement, hypertension, atrial fibrillation, osteoarthritis, shingles, ex-smoker	Fall near the sink

in their late 30s and early 40s, who experienced a fall, which indicated that falls could be experienced by both young and older patients. This information collected was insightful and wide ranging; it highlighted the shortcomings of current acute care hospital system and strategies.

4.1 | Theme 1: Patient Fall Prevention Brochure

Most participants were unaware that there was a fall prevention brochure issued on admission. The brochure is a part of the patient education component of their fall prevention plan and demonstrated a reduced nurse engagement with patients from the admission phase onwards. Five patients—Patients 1, 2, 3, 5 and 6—maintained that they did not receive the brochure on admission, whereas Patient 4 was provided with a fall prevention brochure on admission, and she found it helpful. When queried if she had asked any questions or obtained any clarification from the nursing staff, she replied:

> I didn't need to ask any questions to nursing staff … a lot of the information was common sense.

This finding aligns with the nurse audit data (PCCP) that only 17.5% of patients were provided with a fall brochure, so most patients (82.55%) did not seem to have a fall prevention plan. These data also revealed that only about a quarter (25.9%) of 54 inpatients had discussed risk strategies with nursing staff. When Patient 4 was asked about improvements to the hospital fall strategy, she stated that key is making patients aware of the risk.

> I have always grown up with prevention ... I have been a Health and Safety Manager at my workplace, so a lot of it just [can] be [increasing] patient awareness and being careful [with] what they are doing. And that needs to be, maybe written more into brochures.

Most inpatients (82.5%) were not engaged in their fall prevention plan because they were not provided with a brochure, nor did they have a discussion about their fall risks with nursing staff; this is a significant finding.

4.2 | Theme 2: Low-Low Beds and Alert Signs in Preventing Patient Falls

Consistent with the acute care hospital's fall prevention policy, all high fall risk patients have an alert sign above their bed. The nurse audit (PCCP) indicated that of the 309 patients with a high fall risk, 58% had an alert sign as a fall risk displayed above their beds. Six of the seven patients in this study had an alert sign above their bed.

However, Patients 2, 3 and 7 did not know why they had an alert sign above their beds. For example, Patient 3 was adamant that there was no alert sign, 'No, definitely not. I never seen it', whereas Patient 4 thought it referred to 'slipping over, not falling over'. The nurse audit data (PCCP) also showed that in 42% of instances, the alert sign was not implemented and documented.

Some patients at high risk of falls were also allocated a low-low bed. For example, Patient 1 did not understand the reason for the alert sign or being assigned a low-low bed until it was explained during the research interviews: 'I don't understand why it was'. He also did not know that he was considered to be of high fall risk: 'I didn't realise I was'. Only Patient 6 was informed by a nurse of the reason for being in a low-low bed: 'Yesterday ... she [the nurse] explained ... why I'm in this [low-low] bed'. Crucially, there was no alert sign placed above the bed of this patient to indicate she had a high fall risk.

The demand for low-low beds is high. For example, Patient 4, a 64-year-old woman, had an alert sign, but was not allocated a low-low bed. She slid out of bed while asleep, and although, not seriously injured, she should have been allocated a low-low bed as well as an alert sign:

> I got too close to the edge of my bed and because I only have one leg and a stump, I didn't have control and slipped down the side of the bed.

Possibly, if allocated a low-low bed, she may have rolled onto a crash mat rather than falling from a greater height. Only about one-third (29%) of patients with low-low beds were documented. Thus, the patient interviews underscored the importance of nursing staff explaining to patients the reasons for alert signs and allocations of low-low beds.

4.3 | Theme 3: Bathroom Supervision

The hospital administrative data (RiskMan) indicated that only 5% (17/317) of falls were bathroom related. However, five of the seven patients experienced a fall either as they were walking to the toilet, in the bathroom or near the sink.

Some falls related to a failure to accurately record the toileting regime in the nurse audit (PCCP). Of the 309 high fall risk patients, only 2% had a toilet regime documented as commenced. In relation to supervising high risk fall patients in the bathroom, only 43% were implemented according to the nurse audit (PCCP). For example, Patient 2, an 84-year-old man, was helped to the toilet by a nurse, but when left 'for a few seconds—few minutes', lost his balance when he went to pick up a towel from the floor. He understood what was meant by bathroom supervision, but he was left alone.

Although Patient 2 sustained no injuries, he was asked if the fall was avoidable had a nurse been present: 'Probably, probably not. Who knows?' His relative believed that he had a high fall risk: 'He has frequent falls and needs supervision' and suggested a solution: 'Add a handrail in there, so that nobody falls'. This was a sensible idea as was providing a walking stick to assist this patient to keep his balance. Thus, bathrooms require extra vigilance, as they are places where falls are most likely to occur for the most vulnerable.

4.4 | Theme 4: Patient Call Bells and Patient Risk-Taking Behaviour

A call bell is located near a patient's bed to alert nursing staff when urgent help is required. Often patients do not use it because of the time taken to get assistance. Interestingly, the hospital administrative data (RiskMan) and the nurse audit (PCCP) do not collect data on patient falls related to call-bell delays.

A delay in responding to the call bell led to several patients taking the risk to ambulate without assistance. Patient 5, a 73-year-old woman, fell from the bed onto a crash mat when trying to get out of bed to go to the toilet:

> I pressed the button [referring to patient call bell], but they were busy. I couldn't wait, but I didn't get anywhere anyway.

Without a collaborative and timely approach between the patient and nursing staff, some patients may decide to risk walking unassisted. Patient 3 explained:

> I had to go to toilet, it took too long. It was 15 minutes before someone came.

Clearly, he miscalculated his capacity to walk safely without support, even though he had two previous falls. Patient 6, a 41-year-old woman, had a similar mindset and did not seek help when she attempted to transfer from a soiled bed to a chair:

> ... I thought I'll get out of the bed and just sit in the chair. ... I have been having ... one spasm after the other and I thought the medication had worked ... [but] I slipped off [the chair] onto my knees.

After the fall, she called out to the nurse rather than pushing the patient call bell because she believed that help would arrive more quickly:

> ... my room is directly in front of the nurses' station, and if someone is there, and they hear someone yelling and screaming, wouldn't they come running to see what is happening to you? They would, I do not need to press the buzzer.

Many patients engaged in risk-taking behaviour. RiskMan data revealed that a higher proportion of male patients (201) were more likely to experience a fall than female patients (116). The three female and four male patients in this study did not consider themselves to have a fall risk or believe they required assistance. For example, an 82-year-old man (Patient 7) fell during the night near the bedroom sink:

> My first reflection [memory] was being on the floor, over there underneath the sink, asking for help; and there was nobody around.

Nursing staff found him near the bathroom door, after he tried to walk there without nursing support. When questioned about why he had not sought assistance, he believed he did not need help with going to the toilet with '... I wanted to pass water ... I didn't get any help in that direction'. He said he was not provided with a fall prevention brochure and was therefore not informed that he was engaging in risk-taking behaviour.

Some patients considered that nursing staff were constantly busy and were thus often unwilling to ask for help, as Patient 5 explained:

> ... [nurses] are so busy here ... I cannot wait ... I didn't think I would fall. I rolled out [and] couldn't get up.

This patient was also not provided the fall prevention brochure on admission and did understand the reasons for the alert sign above the bed or the allocation of a low-low bed. Consequently, she presumed she was safe to walk without nursing support.

4.5 | Theme 5: Patient—Nurse Breakdown of Communication

Ineffective communication between nursing staff and patients was identified as a significant factor contributing to in hospital falls. Patient 1 did not understand why he was allocated a low-low bed, Patient 3 was not told the reason for the alert sign and Patient 4 misinterpreted its message. Also, Patient 5 was not part of a fall risk discussion.

There was also evidence of nursing staff not paying proper attention to patient concerns. Patient 1 was a 60-year-old male who was morbidly obese with lower limb cellulitis. At the time of the fall, several nursing staff were trying to help him walk to the bathroom:

> I was trying to walk to the bathroom [with] my walker and there wasn't strength in my legs and ... too many people were trying to help, and I didn't notice that my walker had become entangled with my ... gown.

However, no one noticed that his bathrobe became entangled in the walker. He believed that this ineffective communication is responsible for his fall:

> Too many people putting their input in. I was trying to say, no, I will deal with this. There is too many people touching me. That was the primary [reason] for the fall.

Patient 1 recommended that in order to prevent fall, nursing staff need to listen more carefully to patients:

> In the first place listen to me. Listen to the person who's trying to ... because they know what is going on.

Therefore, it is important for nursing staff to be explain clearly and be attentive to particular patient concerns.

5 | Discussion

Recent research has examined patients' experiences and safety concerns (González et al. 2017; Leland et al. 2022; Sanson et al. 2021), with particular emphasis on hospital fall prevention strategies (Delaforce et al. 2023; van Rhyn and Barwick 2018). The focus of the current research was on patient perspectives of the quality of their therapeutic relationship with nurses and the efficacy of existing fall prevention strategies. Some recommendations have been put forward as part of this discussion.

One significant finding was that low patient engagement in fall prevention impacted understanding of their fall risk and may have influenced risk-taking behaviour. Most inpatients (82.5%) admitted to the medical ward did not receive a fall brochure, which led to little patient engagement and understanding of their fall risk. Thus, careful practice (Sanson et al. 2021) was not performed by the hospital admissions, which concurs with Ferguson et al.'s (2020) investigation that 33%–87% of patients received information.

Age is a key factor in patient falls in hospital, and most patients in this study were elderly. According to the literature (Sutton 2018; Montero-Odasso et al. 2022), older people have the highest risk of death or serious injury arising from a fall, and the risk increases with age: one in three people aged 65 years tend to experience falls and those over 60 years suffer

the greatest number of falls (WHO 2021). In this study, the ages (38–82) of patients may have put them at increased risk of falls; therefore, more effective strategies were required. Hospitals need to provide patients with fall prevention brochures on admission, and nurses need to discuss strategies with high fall risk patients. These two factors need to be accurately recorded in the patient notes on admission and in each shift, so that important information is conveyed during shift changeovers. In this way, patient education plays a significant role and would likely reduce the risk of falls by well-designed education programs that increase patient knowledge in relation to their mobility (Heng et al. 2020). In short, the simple act of distributing a brochure on falls during admission is an important first step in engaging patients that can lead to further understanding and discussions with nursing staff about reducing the risk of falls.

Recommendation 1: Falls Brochure and Patient Engagement. The falls brochure is part of the fall prevention program for high fall risk patients and accurate records need to be kept. Ongoing nursing education is essential to ensure that nursing staff implement all components of fall prevention interventions. The effectiveness of this education program can be measured through patient safety outcomes in the ward.

Patient awareness of the use of low-low beds and alert signs in fall prevention needs improvement. This study revealed that ambulant patients tend to overestimate or are unrealistic about their fall risk, despite previous falls. Nurses need to clearly explain to patients the reason/s they are allocated a low-low bed and/or the location of an alert sign above their beds; otherwise, patients may not fully understand their significance.

There are mixed views in the literature on the efficacy of low-low beds. Barker et al. (2016) confirmed that although several studies found low-low beds prevent falls and fall injuries, their significance lies in the raised awareness of hospital staff to the fall risk of some patients. However, Ryan et al. (2024) found that low-low hospital beds had no change in incidence of falls from beds. Nonetheless, this investigation found that patients need to be clearly and directly informed that they may have a fall risk and the different strategies put into place to reduce possible occurrences.

Patient indifference or disengagement of the significance of the alert sign in this current study closely aligns with Baris and Intepeler's (2018) finding that patients and significant others believed the alert sign to be ineffective and was not interpreted correctly. It is strongly suggested that patients should be informed of significance of alert signs with family members present, so the reasons for the fall interventions and strategies are clearly understood and reinforced (Merner et al. 2019).

There are opposing voices in this discussion. Barker et al. (2016) consider that low-low beds and bed/chair alarms have limited value, and that nursing staff work within a context of conflicting priorities—a hospital ward is often time and resource poor, which may reduce the effectiveness of fall implementation strategies. In addition, entering data into the system may compromise nurse engagement with patients (Delaforce et al. 2023), and elderly patients, such as those in this present study, may possess

more than one fall risk factor (Wilson et al. 2016). It is important to acknowledge that these considerations make it difficult for nursing staff to diagnose and tailor patient-specific strategies in a timely manner.

Recommendation 2: Increased Awareness of Low-Low Beds and Alert Signs. It should be mandatory for hospitals to fully inform patients of their fall risk and their carer/family about the use of alert signs above their beds and the reasons for allocating a low-low bed.

Nursing staff supervision of the bathroom and toileting regime are essential in preventing falls, as many patients underestimate their fall risk, even those who have a fall history. Significant research data (Anderson et al. 2016; Cangany et al. 2018) indicate a strong association between patient toileting requirements and an increase in injurious falls. Anderson et al. (2016) reported that most falls occur with transfers, toileting and falls from beds. The RiskMan fall data revealed a link between the location of the fall and toileting and supervising the bathroom. These can be classified into three groups. Group 1 consisted of falls from beds (136 falls); Group 2 had 88 falls associated with ambulation to the toilet (20 falls) while standing and walking (58 falls), transferring (nine) and one fall in the garden. The third group had falls in the bathroom (one fall in the shower, 17 falls in the bathroom and 20 falls from the commode and toilet, totalling 38 falls). For example, Patient 2, who had a fall in the bathroom, understood what was indicated by the 'supervising bathroom', documented on the PCCP, but there was no documentation of the toileting regime on the PCCP. The PCCP audit results demonstrated a significant shortfall in the documentation of nursing care of the 'toileting regime' as commenced (2%) and 'bathroom supervision' as implemented (43%) may have contributed to fall-related injuries.

To reduce patient falls and fall-related serious injuries, Cangany et al. (2018) implemented a 'no patient toilets alone' intervention, which led to a considerable reduction in the patient fall rate. Zadvinskis et al. (2019) investigated the relationship between the level of nurse engagement and patient falls and found that highly engaged nursing units that conducted purposeful rounds did not experience fewer falls Zadvinskis et al. (2019); however, their study may have included a greater number of patients who had very high fall risk.

Recommendation 3: Improved Bathroom Supervision Strategies. It should be mandatory for hospitals to install handrails in hospital bathrooms and provide high fall risk patients with a walking aid or walker, if the patient fall risk assessment concludes that the patient requires a specific mobility aid.

This study revealed that ambulant patients tend to underestimate their fall risk despite previous falls, and there is a link between a call bell not being answered promptly and the patient taking the risk of ambulating unassisted; this finding concurs with Capo-Lugo et al. (2020) research. Also, male patients may overestimate their ability. For example, Patient 3 overestimated his ability to ambulate safely without assistance, despite experiencing two previous falls. Although he requested assistance the second time, he did not wait for the nursing staff due to the delay in time between the use of the call bell and the arrival of a nurse.

The hospital administrative data (RiskMan) and the nurse audit (PCCP) did not record the response time for call bells.

Al-Nusair et al. (2023) found that call bell response time influences patient satisfaction, complaints and falls. Capo-Lugo et al. (2020) emphasised the relationship between patient ambulation and call-bell usage, revealing that ambulant patients exhibited a mean reduction in call-bell use by 1.7 calls per day compared to non-ambulant patients. Furthermore, Watson et al. (2019) demonstrated the importance of nursing staff promptly answering call bells; citing an instance when the 'patient rang the call bell 19 times' before attempting to walk unassisted and fell. Additionally, Martin et al. (2021) identified that male patients over the age of 65 tend to overestimate their level of mobility and daily activities.

Some patients participated in risk-taking behaviour because they were unaware of the risk or just did not accept that they were vulnerable to falls (van Rhyn and Barwick 2018; Dabkowski et al. 2022). Most patients in the current study were older; five of the seven were aged between 60 and 80 years of age and did not consider themselves to have high fall risk.

Recommendation 4: Prompt Call Bells and Reduction of Patient Risk-Taking Behaviour. It should be mandatory for hospital administrative data to include falls related to delays in call-waiting times.

Ineffective nurse–patient communication is an important cause of inpatient falls. Patient-centred effective communication is vital in developing a therapeutic relationship and improving patient involvement in decision-making about their fall prevention plan. However, when a patient experiences ineffective communication, it can seriously impede the ability of a nurse to build a therapeutic relationship.

There are several instances of nurse–patient breakdown in communication in this study. For example, Patient 1, who fell while the nursing staff were assisting him, may question the quality and safety while in their care, which could result in dissatisfaction and disengagement. Watson et al. (2019) identified ineffective communication among clinicians and patients as a critical factor in inpatient falls and argue that staff may be unfamiliar with the contributing fall risk factors for patients because of poor record keeping. Randell et al. (2024) recommended that the effective communication of patient fall risk to staff through the use of posters, safety huddles and handovers could foster a culture of shared responsibility in becoming more vigilant in implementing fall prevention interventions. Additionally, staff who understand a patient's specific circumstances could promote individualised person-centred care by enhancing patient knowledge and confidence to engage in fall prevention (Randell et al. 2024).

To reduce the risk of patient falls, nursing staff need to provide a clear explanation of the patient's role in preventing falls and they ways in which nursing staff will support their care. This strategy would guarantee patient safety before they commence an activity. This is often difficult and complex, especially in preventing elderly falls, and when there is a heavy nurse workload. de la Cuesta-Benjumea et al. (2020) pointed out that when clinicians are overwhelmed and stressed, fall assessment risk and prevention strategies may be diminished.

Zadvinskis et al. (2019) found that frequency of fall risk discussion during bedside reports, purposeful rounding and nurse engagement were interrelated. There seems to be a need to provide more opportunities for person-centred strategies (Merner et al. 2019) and compassionate approaches so that patients and carers feel comfortable in sharing information and safety concerns (Duah-Owusu White et al. 2022). Consequently, verbal communication that is patient centred is vital in developing a therapeutic nurse–patient relationship and enhancing patient engagement with their fall prevention plan.

Recommendation 5: Improved Patient–Nurse Communication: Hospitals could provide nurses and allied health staff with training on effective communication that incorporates regular prompts to patients on ways to minimise fall risk.

5.1 | Limitations

This was a small-scale study that investigated a single ward in one acute care hospital over a 4-month period. The focus was on the patient perspective of the contributing factors that led to falls and fall injuries. Seven of the 30 patients who were deemed to have a high fall risk participated in the study. It generated considerable quantitative and qualitative data from multiple sources, which were then analysed. The themes emerging from this study provided an overview of the significant issues related to hospital falls in acute care hospitals, and the findings may be transferable to other acute care hospitals.

6 | Conclusion

Patients play a critical part in fall prevention, and this study has revealed that often patients are not engaged in fall prevention. Patients are often not provided with a fall prevention brochure on admission and demonstrated risk-taking behaviour and ambulated without assistance from nursing staff. Better communication between nursing staff and patients is required in informing patients of tailored reasons for fall prevention strategies. It was also revealed that important information related to inpatient falls is not collected in hospital databases or nurse audits. Understanding the contributing factors of falls from the patient perspective would enable nurses and healthcare professionals to adapt their practice to implement more effective interventions and facilitate meaningful discussions. The development of an empathetic relationship is key, as each patient has a unique experience during and after their fall. Patient 1 made an insightful comment at the end of the interview about their contribution to the research: 'I hope it helps, because I actually think that it's very important stuff that you are doing'.

Ethics Statement

Our study was approved by: Victoria University Human Research Ethics Committee (VUHREC) and the approval number is HRE15-188. Victoria University CRICOS No. 00124K (Melbourne Australia). Austin Health Human Research Ethics Committee and the approval number of the study is HREC17/Austin2 (Melbourne, Australia). We confirm that all participants—patients and nurses—provided written informed consent prior to participation in the study.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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