

Preventive Approaches to Fall Prevention among Hospitalized Patients in Hyderabad, Telangana

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Abstract: Falls in hospitals are a significant issue worldwide, despite ongoing prevention efforts in both public and private healthcare settings. Globally, falls are the second leading cause of accidental or unintentional injury deaths. Hospitals allocate substantial resources to prevent falls among patients, particularly older adults who are at a higher risk. According to the World Health Organization (WHO), a fall is defined as "an event which results in a person coming to rest inadvertently on the ground or floor or other lower level." This is a common, preventable, and costly problem that affects healthcare facilities around the world, public and private healthcare settings. Globally, falls rank as the second leading cause of accidental or unintentional injury deaths. Hospitals dedicate substantial resources to prevent falls among patients, especially older adults who are at heightened risk. According to the World Health Organization (WHO), a fall is "an event which results in a person coming to rest inadvertently on the ground or floor or other lower level," a common, preventable, and costly problem that affects health care facilities worldwide. Patients in hospitals are at a higher risk of falling due to factors like acute illnesses, cardiovascular issues, impaired mobility, unfamiliar surroundings, and medication effects. Hospital fall rates range from 3 to 16 per 1,000 bed-days, with injuries occurring in about 30% of cases, including lacerations, fractures, head injuries, and even fatalities. Research highlights established risk factors for falls in hospitals, but risk assessments alone are insufficient. Simple measures, such as staying in bed or seated, and ensuring easy access to essential items, are essential. Nurses and caregivers play a key role in reducing fall risks by providing necessary resources and guidance.

Keywords: Functional impairments, Driven safety interventions, Interdisciplinary team, Boot Campaign, Vulnerable Band

1. Background

Falling is not caused by a single factor rather, it results from a combination of intrinsic, extrinsic, and environmental influences. While having a technical definition of falling is important, its personal significance goes much deeper. Falls are a major cause of death and disability among older adults, and they can also impact an individual's confidence, independence, and overall quality of life.

The prevalence of falls among older adults in India varies significantly, with a review of 19 studies indicating rates between 14% and 53%. Despite growing evidence of the high incidence of fall-related injuries in this population, there are only a limited number of population-based studies investigating the prevalence and contributing factors of such injuries in India. The aim of this study is to identify the prevalence of self-reported fall-related injuries and to describe the risk factors associated with these injuries among older adults, utilizing data from a large, representative national survey in India. Although there is mounting evidence of the high burden of fall-related injuries in older people, there are only a few population-based studies that explored the prevalence and associated factors of fall-related injuries in India. The study aims to identify the prevalence of self-reported fall-related injury and to describe risk factors associated with fall-related injury among older adults using a large country-representative survey data in India.

A descriptive cross-sectional survey study was conducted with 339 registered nurses working in tertiary care hospitals in Chennai, Tamil Nadu, India. The investigators administered a modified version of a previously validated standard questionnaire through an online survey to assess

the nurses' knowledge, attitudes toward falls, and awareness of inpatient fall risk factors.

A study at Apollo Hospitals in Chennai implemented a nurse-led fall prevention program in post-operative wards. Education about fall risks, regular mobility exercises, and safety checks in the environment significantly reduced fall rates among patients recovering from surgery.

Prospective study on "Fall Prevention in Hospitalized Patients: A Study from a Teaching Hospital in India." The incidence of falls was reduced by 25% with the implementation of fall prevention strategies.

A study conducted at AIIMS in New Delhi analyzed fall risks among ICU patients and developed prevention protocols. These protocols included bed alarms, staff training, and regular monitoring of medications that affect cognition or balance.

Numerous studies have highlighted the negative impact that fear of falling can have on the quality of life for older adults. This fear can lead to a cycle of dependency and functional decline, which may ultimately result in fatal outcomes. While there is a wealth of information available about fall prevention interventions, and many of these are implemented in hospitals, few are based on solid evidence. Evidence-based nursing is a decision-making process that combines the best available research, the expertise of clinicians, and the specific characteristics of the patient.

2. Research Methodology

Falls are the second-leading cause of unintentional injuries and deaths worldwide, imposing physical and financial

burdens on patients and healthcare organizations alike. From July to September 2024, there were 12 recorded fall incidents, attributed to factors such as lack of Patient and Family Education (PFE), absence of hourly rounds (especially during night shifts), poor patient - caregiver relationships, limited awareness of disease conditions and medications, and insufficient education for patient attendants on fall prevention.

In October 2024, a campaign called "Be Sure and Be Safe" was launched by the Group Director of Medical Services, the Director of Nursing, and the Director of the Education Department to address fall prevention. This week - long campaign included various educational and hands - on activities aimed at improving compliance with fall prevention strategies.

Boot Campaign Activities

The campaign included various initiatives aimed at educating healthcare team members and patient caregivers to reduce fall incidents.

- Training Sessions Conducted for nurses, physiotherapists, respiratory therapists, and staff in housekeeping and transport departments.
- Poster Competitions and Engagement Activities
- Role - play and educational sessions focused on fall prevention strategies for both inpatient and outpatient departments.
- Debate competitions highlighting the importance of side rails.
- Spot quiz programs and fun activities designed to reinforce fall prevention knowledge among different staff categories.

At the conclusion of the campaign, prize winners were recognized by hospital leadership, and staff members took an oath to adhere strictly to fall prevention protocols, ensuring the safety of patients.

Ongoing Strategies and Improvements

Daily audits and hourly rounds were implemented, utilizing the Modified Morse Fall Risk Assessment Tool (MMFRAT) to monitor patients at risk of falling. Briefings were held during all shifts to reinforce patient and family engagement (PFE) through fall prevention pamphlets. Unit leaders were responsible for ensuring that night - round protocols were followed. This comprehensive approach significantly reduced the incidence of falls, decreasing from 6 in September to 3 in October, and further down to 1 in November 2024.

Fall Prevention Strategies

The following strategies are now in place to maintain a culture of safety:

- 1) Identify Vulnerable Groups and apply yellow bands.
- 2) Use Side Rails and Safety Boards to alert staff of fall risks.
- 3) Apply Brakes on Cots to ensure stability.
- 4) Educate Patients and Families on fall prevention.
- 5) Train Staff in fall risk assessment.
- 6) Install Grab Bars and Call Bells in rooms and bathrooms.
- 7) Use Safety Belts on stretchers and wheelchairs.
- 8) Conduct Regular Training Sessions for healthcare staff.

- 9) Enhanced Fall Risk Assessment through the Modified Morse Fall Risk Scale and consistent application of preventive measures.

Do's

- Always sit for some time before standing up and walking to avoid giddiness and falls.
- Keep the washroom floor dry
- At home shower mats can be used to prevent falls in bathrooms for persons having difficulty in walking on wet floor or tiled flooring
- Seek assistance as and when required to go to the washroom especially in the night and early morning
- Ask the doctor if any of the prescribed medications can cause giddiness, examples anti hypertensive, pain killers like Tramadol so that required precautions can be taken to avoid falls
- Exercise regularly
- Wear footwear that do not skid
- Ensure entryways and staircase areas are well lit
- Education to the patient and relatives on fall risk prevention.

Don'ts

- Never put the side rails down
- Never forget to call for help
- Never make your room dark
- Never move about or walk (ambulate) without assistance of a health care personnel
- Do not forget to inform your nurse while change of attendants
- Never leave the patient unattended
- Never allow the patient alone to washrooms especially during night

3. Conclusion

The "Fall Prevention" campaign, along with ongoing audits, education, and hands - on training, has significantly reduced fall incidents at the hospital. These preventive measures highlight the hospital's commitment to patient safety and the importance of a proactive approach to managing fall risks. Continuous staff education, daily audits, and consistent engagement with patients and their families are crucial for maintaining a safe environment and preventing future falls among hospitalized patients.

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