

Letter to Editor: Characteristics of Inpatient Falls in Rasoul Akram Hospital



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1. Dear Editor,

Inpatient fall is among the essential adverse events of the hospitalization. Despite high occurrence and related adverse medical consequences, falls had received inadequate attention [1]. The inpatient fall incidence is reported as 15%-80% in different hospital types [2-4]. Almost 2%-17% of patients experience falls during their hospitalization [5]. Inpatient falls cause critical problems for patients, including injuries, increased mortality rates, and decreased quality of life. Furthermore, they impose economic burdens on health organizations through increasing the duration of stay, healthcare costs, and litigation [6, 7].

Various fall prevention programs have been applied in hospitals [8, 9]. This study, therefore, aimed to evaluate the characteristics of inpatient falls in Rasoul Akram Hospital between 2015 and 2019. Accordingly, we explored the characteristics of patients who experienced falls, factors leading to falls, and fall-related variables. Additionally, we aimed to increase awareness about the appropriate preventive interventions concerning falls.

2. Materials and Methods

In this cross-sectional study, 261 patients admitted to Rasoul Akram Hospital between 2015 and 2019 were

included in the study. Checklist of demographic information including age, sex, year and month of fall, ward, and location of fall, protection status around the bed in case of patient fall from the bed, patient status in terms of companion, fall-related injury, patient's level of consciousness, type of disease, the ratio of number of nurses to bed, and patient complaints after the fall, were completed. SPSS software v. 24 was used for statistical analysis of the data.

3. Results

The Mean±SD age of 261 patients participating in the study was 53.09±22.06 years. Moreover, 146 (55.9%) patients were male and 115(44.1%) subjects were female. Males have approximately experienced fall accidents 12% more than females; thus, there was relative dominance of males over females in the occurrence of falls. Most of the falls were occurred in July (18.4%). Moreover, most falls occurred at 3 AM and 7 PM, in 19(7.3%) patients of both genders. Most fall accidents occurred in dark hours (from 7 PM to 6 AM). Therefore, due to the lack of nurses in night shifts, compared to the day shifts, this issue further occurs during night shifts. Furthermore, in the morning and early morning hours, the number of falls is high; these hours seem to be the peak time of the occurrence of problems related to hospital bed safety. The higher frequency of falls at night shifts can be induced by the unfamiliarity of the

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patients with the environment of the hospital at night, combined with an unwillingness to bother either nurses or companions.

Most of the study patients, i.e., 74(28.4%) subjects, were hospitalized in the internal ward, followed by the psychiatry ward (11.9%), and surgery ward, i.e., 20(7.7%) individuals. Therefore, it is necessary to initially pay special attention to the need for more care and monitoring in these two wards. Besides, it is important to retrain the nurses of these two wards regarding care, to prevent patients from falling.

Regarding the type of disease, internal diseases (29.5%) were ranked first, surgery was ranked second (14.6%), and neurological diseases (13.4%) had the third rank. The first 3 frequent accident sites were lying in bed (27.2%), in the bathroom (26.8%), and walking (16.5%). Regarding the status of the bed guard in most of the patients, the bed had no bed guard, or the bed guard was broken, or not on the bed (55.9%). The bed guard position was open (down) in numerous cases, i.e., a significant point in this study. Such an issue necessitates prevention by fully-trained nurses and paramedics, as well as the patient's companions. Next, we should consider that the patient is alone in the bathroom. The companion does not accompany the patient; as a result, the odds of a fall accident increase. Most of the examined patients had a companion at the time of fall: 144(55.2%), 34% had no companion, and in 7.3% of the cases, the companion was not with the patient at the time of the accident. A task that the companion must be trained or aware of is to prevent falls. The most injured organ in the studied patients was the head and neck (43.7%), followed by the limbs (16.9%). Regarding patients' consciousness state, 82% of the examined patients were alert at the time of fall, 14.2% were confused, and 0.8% were unconscious. The mean±SD ratio of the frequency of nurses to the number of beds in the study was 10.6±4.5. For example, if this ratio equals 10%, each nurse is responsible for managing 10 beds. In this study, 124(47.5%) patients complained after the fall.

5. Conclusion

According to the obtained results, most of the falls were related to patients with internal diseases, hospitalized in the internal wards. Furthermore, the frequency of complaints about the fall was not negligible; about half of the examined patients have complained about the fall accident. Moreover, old age, male gender, and the early hours of the morning were among the issues, i.e., mostly involved in the fall incidents. Protecting the patient

while lying in bed, as well as protecting the patient when going to the bathroom, can be effective in reducing the number of falls.

Ethical Considerations

Compliance with ethical guidelines

This study followed the protocol of ethical regulations; the information collected from the study samples remained confidential. Researchers adhered to the declaration of Helsinki and the Ethics Committee of Iran University of Medical Sciences at all stages. Moreover, the present study was approved by the Ethics Committee of Iran University of Medical Sciences (Code: IR.IUMS.REC.1399.264).

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Author's contributions

All authors equally contributed to preparing this article.

Conflict of interest

The authors declared no conflicts of interest.

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