

جامعة مبدأوشن

كلية الإدارة

قسم / تخصص إدارة المخاطر



عنوان البحث

Assess the risk factors contributing to increasing patient fall rate in the
Oncology patient unit at King Fahad Specialist Hospital Dammam (KFSHD)

إعداد الطالب/ نوره سعد البراهيم

إشراف/

د. الفيصّل عبد الحميد

د. فايز جرّاد

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مقدمة:

Falls in healthcare settings pose a significant threat to patient safety, leading to a range of negative outcomes, including severe injuries, extended hospitalization, and increased healthcare costs. These incidents not only affect the patients directly involved but can also create a ripple effect that impacts families, healthcare professionals, and the institution. Understanding the underlying risk factors contributing to such incidents is crucial for implementing effective prevention strategies.

This study focuses on King Fahd Specialist Hospital (KFSH) in Dammam, Saudi Arabia, where the risk of falls is particularly pronounced in high-stakes environments such as oncology inpatient settings. These areas are often characterized by critical patient care needs, high levels of medication administration, and frequent changes in patient conditions. By identifying and analysing the specific factors that contribute to patient falls in these settings, the study aims to enhance patient safety and improve the overall quality of care provided at KFSH.

Moreover, the repercussions of falls extend beyond immediate physical harm; they can lead to psychological distress for patients and families, increased workload for nursing staff, and higher operational costs for hospitals. Therefore, addressing this issue is not merely an individual concern but a systemic one that requires comprehensive analysis and intervention.

مشكلة الدراسة:

The founding problem addressed in this study is the high incidence of patient falls within various units of KFSHD. Despite existing protocols and guidelines aimed at fall prevention, incidents continue to occur at alarming rates. This indicates a substantial gap in understanding the multifaceted nature of this issue. The study seeks to explore how patient characteristics, such as age, mobility levels, and cognitive status, interact with environmental conditions and staffing practices to contribute to fall rates.

Additionally, it is essential to consider the dynamic nature of healthcare settings, where rapid changes in patient conditions and staffing levels can lead to increased risks. The study aims to identify actionable strategies for prevention that are not only grounded in empirical evidence but also tailored to the unique challenges faced by inpatient oncology unit at KFSHD.

أهمية الدراسة:

The importance of this study lies in its potential to significantly impact patient safety and care quality at KFSHD. The findings of this research can inform targeted interventions that not only reduce fall rates but also minimize the associated healthcare costs. By focusing on a prominent issue within a major healthcare institution, this study contributes valuable insights that can be applicable to similar settings across the region.

Furthermore, improving patient safety is integral to enhancing the reputation of the institution. Hospitals are increasingly held accountable for patient outcomes, and a track record of high fall rates can adversely affect public perception and trust. By fostering a culture of safety and continuous improvement, KFSHD can enhance its commitment to patient care and contribute to a broader movement towards higher standards in healthcare delivery.

In addition to institutional benefits, the study also aims to empower healthcare professionals by equipping them with knowledge and tools to better manage fall risks. This could lead to enhanced job satisfaction and morale among staff, as they feel more confident in their ability to protect patient safety.

أهداف الدراسة:

1. **Identify Risk Factors:** To systematically identify and categorize the specific risk factors contributing to patient falls in oncology settings at KFSH, using both quantitative and qualitative data
2. **Analyse Impact:** To analyse the impact of these risk factors on patient outcomes, including injury severity, length of stay, and readmission rates.
3. **Develop Strategies:** To propose evidence-based strategies for mitigating fall risks tailored to each unit's unique challenges, focusing on practical implementation within the hospital environment.
4. **Enhance Training:** To enhance staff training and awareness regarding fall prevention practices, ensuring that healthcare workers are equipped with the latest knowledge and skills to address this issue effectively.

تساؤلات الدراسة

- What are the primary patient-related risk factors contributing to falls in each hospital unit?
- How do environmental conditions, such as lighting, flooring, and layout, influence the likelihood of falls in oncology inpatient departments?
- What role does staff awareness and training play in fall prevention, and how can this be improved within the hospital?
- Which targeted interventions can be most effective in reducing fall rates in these settings, and how can their effectiveness be measured?

فروض الدراسة:

1. The presence of acute medical conditions and cognitive impairments significantly increases the risk of falls in oncology settings suggesting a need for tailored assessment protocols for these vulnerable populations
2. Poor environmental conditions, such as cluttered spaces and inadequate lighting, contribute to higher fall rates in medical wards and emergency rooms, indicating that environmental modifications may be a key component of fall prevention strategies.
3. Insufficient staffing and high patient-to-nurse ratios lead to increased fall risk, particularly in high-demand areas, highlighting the importance of appropriate staffing levels for patient safety.

الدراسات السابقة

Previous studies have highlighted the multifactorial nature of patient falls in healthcare settings. Research has identified key factors such as patient age, mobility issues, medication effects, and environmental hazards as significant contributors to fall incidents. For instance, studies have shown that elderly patients, particularly those with multiple comorbidities, are at a higher risk of falls. Additionally, research has suggested that certain medications, especially those affecting cognitive function or balance, can substantially increase fall risk.

Furthermore, environmental factors such as slippery floors, poor lighting, and obstructed pathways have been shown to correlate with higher fall rates. Effective training and awareness programs for healthcare staff can lead to a measurable reduction in fall rates, as demonstrated in various healthcare settings. This study will build on existing literature to provide a comprehensive analysis specific to KFSHD's unique environment, considering local factors that may not have been previously considered.

المنطلقات النظرية للدراسة:

This study will be grounded in theories related to patient safety and risk management, including the (Swiss Cheese Model) of error prevention. This model suggests that multiple layers of defence can help prevent accidents, emphasizing the importance of a holistic approach to safety that includes patient factors, environmental considerations, and staff training.

Additionally, the study will incorporate aspects of environmental health theory, which emphasizes the significance of a safe and navigable healthcare environment in reducing fall risks. By understanding how environmental design can either mitigate or exacerbate risks, the study aims to inform practical changes within KFSHD that enhance patient safety.

المنهجية وطرق البحث:

A mixed-methods approach will be employed for this study, combining quantitative and qualitative research methods. The quantitative component will involve the collection of data on fall rates across different hospital units, utilizing existing hospital records and standardized fall risk assessment tools. This data will be analysed statistically to identify trends and correlations between risk factors and fall incidents.

The qualitative aspect will involve interviews and focus groups with healthcare staff and patients to gather insights on perceptions of risk factors and effective strategies. This approach will allow for a deeper understanding of the contextual factors influencing falls and will provide rich, descriptive data that can complement the quantitative findings. Data will be analysed using statistical methods for quantitative data and thematic analysis for qualitative data, ensuring a comprehensive understanding of the problem

أدوات الدراسة:

- **Standardised Fall Risk Assessment Tools:** Utilized to assess patient risk levels upon admission and throughout their stay, providing a systematic way to identify high-risk patients.
- **Staff Training Programs:** Development of training modules focused on fall prevention strategies tailored to specific units, incorporating the latest research findings and best practices.
- **Environmental Safety Audits:** Regular assessments of physical environments to identify and mitigate hazards that could lead to falls, ensuring that the hospital maintains a safe atmosphere for patients.

حدود الدراسة:

The study will focus specifically on the patient populations within KFSHD oncology setting. While it will provide valuable insights, the findings may not be generalizable to other healthcare settings due to differences in patient demographics, institutional protocols, and environmental conditions.

Moreover, the reliance on self-reported data from staff and patients may introduce bias, as perceptions of risk may not always align with actual fall incidents. Future studies could expand on these findings by including a broader range of hospital units or different healthcare facilities, allowing for a more comprehensive understanding of fall risks across various contexts

1. Kakara, R., Bergen, G., & Burns, E. (2023). Understanding the association of older adult fall risk factors by age and sex through factor analysis. *Journal of Applied Gerontology*, 42(7), 1662–1671. <https://doi.org/10.1177/07334648231154881>
2. World Health Organization. Falls. Available online: http://www.who.int/violence_injury_prevention/other_injury/falls/en/ (accessed on 2 January 2021).
3. Strini, V., Schiavolin, R., & Prendin, A. (2021). Fall Risk Assessment Scales: A Systematic Literature Review. *Nursing Reports*, 11(2), 430–443. <https://doi.org/10.3390/nursrep11020041>
4. Montero-Odasso, M. M., Kamkar, N., Pieruccini-Faria, F., Osman, A., Sarquis-Adamson, Y., Close, J., Hogan, D. B., Hunter, S. W., Kenny, R. A., Lipsitz, L. A., Lord, S. R., Madden, K. M., Petrovic, M., Ryg, J., Speechley, M., Sultana, M., Tan, M. P., Van Der Velde, N., Verghese, J., . . . Kobusingye, O. (2021). Evaluation of clinical practice guidelines on fall prevention and management for older adults. *JAMA Network Open*, 4(12), e2138911. <https://doi.org/10.1001/jamanetworkopen.2021.38911>
5. LeLaurin, J. H., & Shorr, R. I. (2019). Preventing falls in hospitalized patients. *Clinics in Geriatric Medicine*, 35(2), 273–283. <https://doi.org/10.1016/j.cger.2019.01.007>
6. Ambrose A. F., Paul G., Hausdorff J. M. (2013). Risk factors for falls among older adults: A review of the literature. *Maturitas*, 75(1), 51–61. <https://doi.org/10.1016/j.maturitas.2013.02.009>