ASSESSMENT OF NURSES' KNOWLEDGE, ATTITUDES, AND PRACTICES TOWARD FALL PREVENTION IN KING FAISAL SPECIALIST HOSPITAL AND RESEARCH CENTRE–RIYADH, SAUDI ARABIA: A CROSS-SECTIONAL STUDY

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Abstract

Falls remain a leading cause of morbidity and mortality worldwide and are a critical indicator of patient safety in hospital environments. This study assessed nurses' knowledge, attitudes, and practices (KAP) toward fall prevention at King Faisal Specialist Hospital and Research Centre (KFSH&RC) in Riyadh, Saudi Arabia. A descriptive cross-sectional survey was conducted among 331 registered nurses directly involved in patient care. Data were collected using a validated KAP questionnaire distributed electronically via REDCap. Reliability testing confirmed strong internal consistency for knowledge ($\alpha = 0.832$) and attitudes ($\alpha = 0.866$), with moderate consistency for practices ($\alpha = 0.555$). Descriptive and inferential analyses, including Kruskal–Wallis and Spearman's correlation, were applied.

The findings revealed high levels of knowledge (mean score = 0.87) and positive attitudes (mean score = 0.87) toward fall prevention, with most participants consistently identifying risk factors and recognizing prevention as a professional responsibility. Practices were also reported at high levels, though challenges included patient resistance and workload pressures. Female nurses scored significantly higher in knowledge ($p = 0.028$) and practices ($p = 0.017$). Attitudes correlated strongly with practices ($\rho = 0.513$, $p < 0.001$), highlighting the motivational role of perceptions in driving preventive behaviors.

The study concludes that while knowledge and attitudes are strong, bridging the gap to consistent practice requires targeted training, simulation-based learning, digital tools, and leadership-driven safety culture. These findings provide evidence to strengthen institutional policies and align fall prevention strategies with Saudi Vision 2030 priorities for healthcare excellence.

Keywords

Fall prevention; nursing knowledge; attitudes and practices; patient safety; Saudi Vision 2030; King Faisal Specialist Hospital; cross-sectional study

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Introduction

Global Burden of Falls

Falls are recognized as one of the most pressing and persistent public health concerns worldwide, particularly within healthcare institutions. According to the World Health Organization, falls represent the second leading cause of unintentional injury-related mortality, accounting for more than 680,000 deaths annually and affecting millions of individuals with non-fatal injuries that result in long-term disability and reduced quality of life. Beyond their human toll, falls impose a profound economic burden on health systems. [1]The direct and indirect costs include extended hospitalizations, additional diagnostic and therapeutic procedures, rehabilitation requirements, and litigation expenses in cases of preventable harm. In many countries, fall-related injuries are among the primary contributors to loss of disability-adjusted life years (DALYs) among older adults, rivaling conditions such as stroke and ischemic heart disease.[2]

Hospital environments are particularly vulnerable to high fall rates due to the concentration of elderly patients, those with mobility limitations, and individuals receiving medications that increase dizziness or orthostatic hypotension. A single fall can extend hospital stay by 6–12 days and substantially elevate the risk of institutionalization post-discharge. Despite decades of research, underreporting of falls remains a challenge, particularly in Asia and the Middle East, where cultural perceptions and fear of professional blame may deter incident reporting. This concealment can distort hospital safety records and hinder the implementation of preventive measures. Ultimately, falls continue to serve as a sentinel indicator of quality of care, underscoring the urgent need for contextually tailored, evidence-based prevention strategies.[3]

Relevance to Patient Safety and Nursing Role

Fall prevention is universally acknowledged as a cornerstone of patient safety initiatives. Within hospitals, nurses occupy a uniquely strategic position in minimizing fall risk because of their continuous proximity to patients, their responsibility for risk assessment, and their central role in patient education and care planning. Nurses are often the first to detect early warning signs such as gait instability, cognitive decline, or adverse drug reactions. Consequently, their knowledge, attitudes, and practices (KAP) directly influence patient outcomes.[4]

International literature emphasizes that well-informed and motivated nursing staff can significantly reduce fall rates through proactive surveillance, individualized prevention plans, and reinforcement of safety culture. Conversely, deficits in nurse knowledge, negative perceptions of fall prevention protocols, or competing workload priorities can undermine adherence to best practices, even when institutional policies are in place. The consequences of these gaps extend beyond patient injury; they affect organizational reputation, accreditation status, and compliance with international quality benchmarks.[5]

Furthermore, nurses act as the primary educators of patients and families, helping them understand intrinsic risk factors such as aging, chronic illness, or previous falls, and extrinsic factors including environmental hazards and inappropriate footwear. Their ability to communicate preventive strategies in a culturally sensitive manner enhances patient engagement and adherence. Importantly, interdisciplinary collaboration—where nurses coordinate with physicians,

physiotherapists, and support staff—magnifies the effectiveness of fall prevention. Thus, strengthening nursing KAP represents not only an investment in patient safety but also a critical determinant of the overall resilience and reliability of hospital care systems[6]

National Context: Saudi Vision 2030 and Safety Reforms

In Saudi Arabia, patient safety has become a central priority under the framework of Saudi Vision 2030, which emphasizes healthcare transformation, quality improvement, and alignment with global safety standards. The Ministry of Health has launched multiple initiatives aimed at reducing preventable harm, with fall prevention positioned as a key quality indicator. These efforts are particularly vital given the demographic profile of the Kingdom: a rapidly aging population, increasing prevalence of chronic diseases, and high admission rates in tertiary hospitals. National reports estimate that falls among hospitalized patients contribute significantly to morbidity, extended hospital stays, and escalating healthcare costs.[7]

King Faisal Specialist Hospital and Research Centre (KFSH&RC), as one of the nation's flagship tertiary care institutions, plays a leading role in adopting and evaluating safety initiatives. Its position as a referral center for complex cases places its nursing workforce at the frontline of addressing fall risks in high-acuity environments. Despite the presence of institutional policies and protocols, gaps in practice remain, often driven by heavy workloads, patient resistance, and variable interdisciplinary collaboration. Addressing these gaps is consistent with Vision 2030's aim to build a world-class healthcare system characterized by transparency, accountability, and patient-centered outcomes.[8]

Problem Statement, Objective, and Rationale

Despite the recognition of falls as preventable adverse events and the existence of hospital-wide protocols, inconsistencies remain in how effectively nurses translate knowledge and attitudes into sustained preventive practices. This gap is particularly pronounced in high-acuity hospitals, where operational pressures and patient complexity challenge protocol adherence. While international studies have explored these dynamics extensively, there is limited empirical evidence from Saudi Arabia, and even less from high-reliability institutions such as KFSH&RC.

Objective: This study aims to assess nurses' knowledge, attitudes, and practices regarding fall prevention, identify demographic and institutional factors influencing these domains, and explore interrelationships among KAP components.

Rationale: By examining the perspectives and behaviors of nurses within a leading tertiary hospital, the study contributes to the evidence base required to strengthen fall prevention strategies in Saudi Arabia and beyond. The findings will inform targeted training, leadership engagement, and system-level interventions, ultimately supporting the Kingdom's national goals for quality care under Vision 2030 and advancing global patient safety agendas.

Methodology

Study Design

This study employed a **descriptive cross-sectional survey design**, chosen because it enables the systematic evaluation of nurses' knowledge, attitudes, and practices (KAP) toward fall prevention at a single point in time. Cross-sectional designs are particularly effective in establishing

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associations among cognitive, affective, and behavioral dimensions of clinical practice, while also capturing demographic variations across a large workforce. Although causal inference cannot be established with this design, it provides a robust and efficient approach for identifying patterns of strengths and gaps in nursing practices within complex hospital environments. The present design aligns with the study aim of assessing KAP interrelationships and identifying institutional and demographic predictors of fall prevention adherence.

Study Setting

The study was conducted at **King Faisal Specialist Hospital and Research Centre (KFSH&RC), Riyadh, Saudi Arabia**, one of the largest and most advanced tertiary healthcare institutions in the Middle East. KFSH&RC is a high-acuity hospital that manages a diverse patient population, including oncology, surgical, pediatric, and critical care cases. With approximately 2,930 registered nurses at the time of study initiation, the hospital provided a suitable environment for evaluating fall prevention practices in a high-reliability context. Importantly, the hospital has an established patient safety program and uses structured fall prevention protocols, which ensured the study was embedded within a context already committed to quality improvement.[9]

Participants

Inclusion Criteria

Participants were eligible if they met the following criteria:

1. Registered nurses currently employed at KFSH&RC.
2. Involved in direct patient care (medical, surgical, and critical care units).
3. At least six months of clinical experience within the institution.
4. Provided electronic informed consent.

Exclusion Criteria

Nurses in non-clinical or administrative roles, those with less than six months of hospital service, and those who submitted incomplete surveys were excluded.

Sampling and Sample Size

The sample size was calculated using **Slovin's formula**:

n=N1+Ne2n = \frac{N}{1+Ne^2}n=1+Ne2N

where N = 2,930 (total nursing staff) and e = 0.05 (margin of error). The calculated minimum sample size was 350. Following survey distribution, 350 nurses participated, but 19 incomplete responses were excluded. The **final sample comprised 331 participants**, yielding a response rate of **94.5%**, which exceeds the minimum required for statistical representativeness and ensures adequate power for inferential testing

Demographic Profile

Table 1 presents the demographic characteristics of participants. The majority were female (84.0%), with the largest age group being 26–35 years (39.1%), followed by 36–45 years (31.7%). A majority held a bachelor's degree (73.1%) and had more than eight years of nursing experience (66.8%). Nearly 38% had been employed at KFSH&RC for more than eight years, reflecting a relatively stable workforce.

Instrument

Questionnaire Structure

Data were collected using a **self-administered, structured questionnaire** developed by the research team after an extensive literature review (2020–2024). The tool comprised four sections:

1. **Demographics**: Age, sex, education, years of experience, tenure.
2. **Knowledge Domain (11 items)**: Awareness of fall risk factors, hospital guidelines, evidence-based strategies, and consequences of falls.
3. **Attitude Domain (10 items)**: Perceptions of fall prevention importance, leadership support, teamwork, and professional responsibility.
4. **Practice Domain (9 items)**: Frequency of conducting risk assessments, implementing individualized prevention plans, documentation, and interdisciplinary collaboration.

Responses were captured on **Likert-type scales** (ranging from "strongly disagree" to "strongly agree" or from "never" to "always"), supplemented by multiple-choice questions for key behavioral indicators.

Instrument Development and Validation

- **Content Validity**: Derived from existing tools and validated against the systematic review by Taherzadeh et al. (2025).
- **Face Validity**: Reviewed by three experts in nursing, patient safety, and biostatistics.
- **Reliability Testing**: Cronbach's alpha confirmed internal consistency:
    - Knowledge: 0.832 (strong).
    - Attitudes: 0.866 (excellent).
    - Practices: 0.555 (moderate).

These results confirm acceptable psychometric properties, with limitations acknowledged for the practice domain due to variability in clinical implementation.[10]

Data Collection

Data were collected between September and November 2024 using **Research Electronic Data Capture (REDCap)**, a secure, web-based survey tool. Distribution channels included institutional email lists and QR codes placed in nursing units. Participation was voluntary, anonymous, and confidential. Completion time averaged 15–20 minutes per participant. Built-in logic prevented missing data except for skipped items, reducing the risk of incomplete responses.

Variables

- **Independent Variables (Demographics):** age, sex, education level, years of nursing experience, tenure at hospital.
- **Dependent Variables (KAP):**
    - **Knowledge scores**: familiarity with risk factors, guidelines, training, and interventions.
    - **Attitude scores**: perception of importance, leadership support, teamwork, optimism.
    - **Practice scores**: frequency of fall assessments, prevention planning, documentation, monitoring, collaboration.

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Data Analysis

Statistical analysis was performed using **Stata version 17**.

1. **Descriptive Statistics**
    - Frequencies, percentages, means, and standard deviations for demographics.
    - Item-level response distributions for KAP domains.
2. **Reliability Analysis**
    - Cronbach's alpha coefficients for each domain to confirm internal consistency.
3. **Inferential Statistics**
    - **Kruskal–Wallis tests** and **independent t-tests** to examine group differences (age, sex, education, tenure).
    - **Spearman's correlation** to explore interrelationships among knowledge, attitudes, and practices.
4. **Thresholds for Significance**
    - A p-value of <0.05 was considered statistically significant.

This multi-layered analysis allowed the study to detect subgroup differences, evaluate psychometric robustness, and assess cognitive–affective–behavioral interdependencies within nursing practice.

Ethical Considerations

Ethical approval was granted by the **Research Ethics Committee of King Faisal Specialist Hospital and Research Centre (REC #2241281)** on **September 2, 2024**. The study adhered to the **Declaration of Helsinki** guidelines. Informed consent was obtained electronically before survey initiation, with participants assured of confidentiality, voluntary participation, and the right to withdraw at any stage without consequence. Data were stored on encrypted servers, accessible only to the principal investigators.

Results

Participant Demographics

A total of 331 nurses participated in the study, representing a diverse cross-section of staff at King Faisal Specialist Hospital and Research Centre. The majority of participants were female (84.0%), with most aged between 26–35 years (39.1%), followed by 36–45 years (31.7%). The majority held a bachelor's degree (73.1%) and had more than 8 years of nursing experience (66.8%). In terms of institutional tenure, 37.8% had been employed at the hospital for more than 8 years. These demographic characteristics are summarized in **Table 1**.[12]

Table 1. Demographics and characteristics of the sample (N = 331)

Characteristic	n (%)
Age	
22–25	19 (5.7)
26–35	129 (39.1)
36–45	105 (31.7)
46–55	62 (18.7)

≥56	16 (4.8)
Sex	
Female	278 (84.0)
Male	53 (16.0)
Years of nursing experience	
1–3	40 (12.1)
4–8	70 (21.1)
>8	221 (66.8)
Highest education level	
Diploma	56 (16.9)
Bachelor's degree	242 (73.1)
Master's degree	30 (9.1)
Doctoral degree	3 (0.9)
Years working at KFSH&RC	
6 months–3 years	106 (32.0)
4–8 years	100 (30.2)
>8 years	125 (37.8)

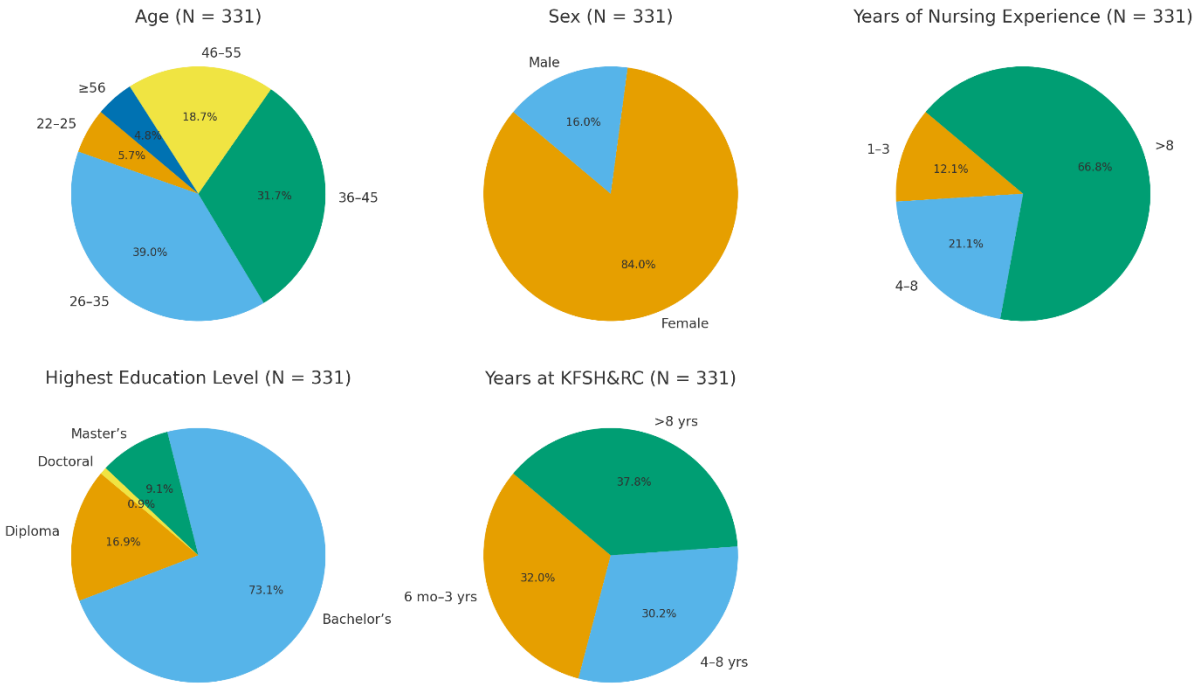

Figure : Demographics and characteristics of the sample

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The demographic profile reflects a highly experienced and predominantly bachelor-level educated nursing workforce, which is consistent with the hospital's emphasis on specialized tertiary care.

Nurses' Knowledge of Fall Prevention

Nurses demonstrated a high level of knowledge regarding fall prevention. Two-thirds (66.8%) strongly recognized common fall risk factors, while 72.2% strongly agreed on the importance of conducting risk assessments. A majority (61.4%) were strongly familiar with hospital protocols, and 93.4% could identify at least three commonly used interventions.

The overall mean knowledge score was **0.87 (SD = 0.13)**, with high reliability (Cronbach's α = 0.832). Female nurses reported significantly higher knowledge scores compared to male nurses (p = 0.028). No significant differences were observed across age, education level, or years of experience. These findings suggest a consistent and strong baseline knowledge across the nursing workforce, except for a gender-related difference.[13]

Table 2. Knowledge assessment on fall prevention among nurses

Item	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Familiarity with common fall risk factors	1.2%	–	1.8%	30.2%	66.8%
Knowledge of prevention strategies	0.9%	0.3%	1.8%	34.7%	62.3%
Importance of fall risk assessments	1.2%	–	2.1%	24.5%	72.2%
Awareness of hospital protocols	1.5%	0.3%	3.6%	33.2%	61.4%
Confidence in patient/family education	1.2%	0.6%	3.9%	36.3%	58.0%

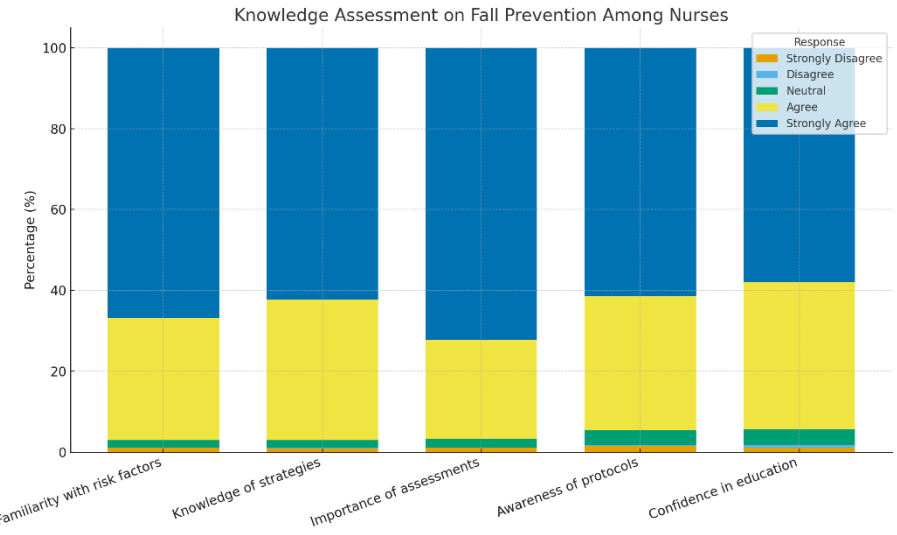

Figure : Knowledge assessment on fall prevention among nurses

Nurses' Attitudes toward Fall Prevention

Attitudes were overwhelmingly positive. More than 80% strongly agreed that fall prevention is a critical aspect of patient care, while 78.9% believed preventive measures directly enhance patient outcomes. Nurses also perceived strong leadership support, with 62.6% reporting full managerial backing.

The attitude scale showed high internal consistency (Cronbach's α = 0.866), with a mean attitude score of **0.87** across subgroups. Significant differences were found by education and tenure, with bachelor's degree holders and nurses with longer service reporting the most positive attitudes.

Table 3. Attitudes toward fall prevention among nurses

Item	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Fall prevention essential to care	0.6%	0.3%	1.5%	17.5%	80.1%
Fall prevention improves outcomes	0.3%	0.3%	1.2%	19.3%	78.9%
Fall prevention a daily priority	0.3%	–	1.5%	20.9%	77.3%
Supported by management	0.9%	1.2%	2.7%	32.6%	62.6%
Nurses as leaders in fall prevention	–	–	1.5%	26.6%	71.6%

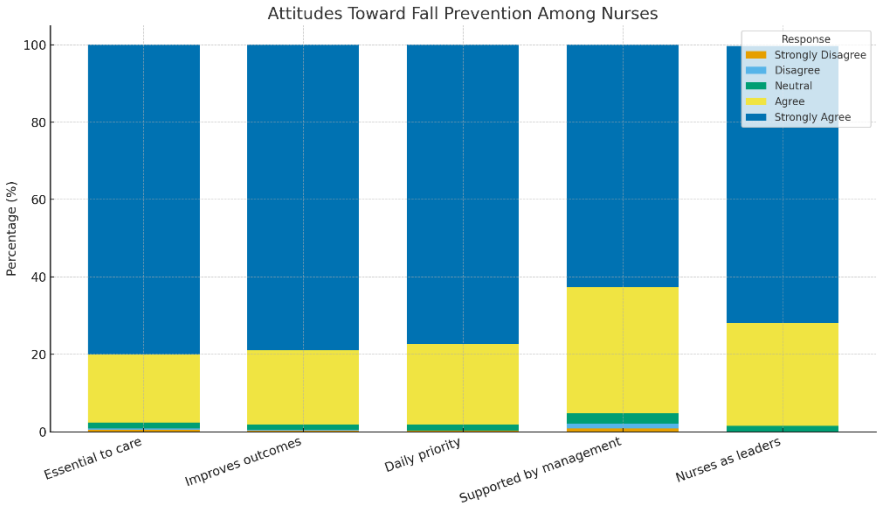

Figure : Attitudes toward fall prevention among nurses

Fall Prevention Practices

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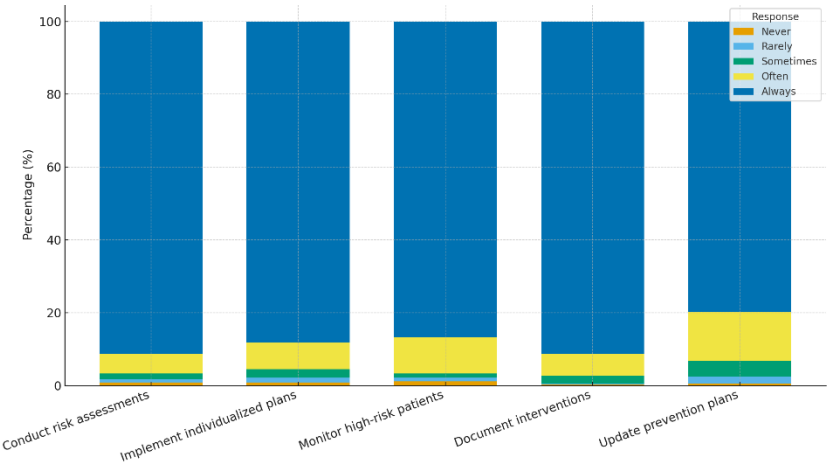
Reported practices indicated strong adherence to preventive protocols. A vast majority (91.3%) consistently performed risk assessments and documented interventions. Nearly 88.2% always developed individualized care plans, while 86.7% closely monitored at-risk patients.

Despite strong adherence, 85.5% of nurses acknowledged encountering challenges, including patient resistance (31.1%), workload, and interdisciplinary communication issues. Female nurses demonstrated significantly higher practice scores compared with males (p = 0.017).

Table 4. Practices regarding fall prevention among nurses



Item	Never	Rarely	Sometimes	Often	Always
Conduct fall risk assessments	0.9%	0.9%	1.5%	5.4%	91.3%
Implement individualized plans	0.9%	1.2%	2.4%	7.3%	88.2%
Monitor high-risk patients	1.2%	0.9%	1.2%	10.0%	86.7%
Document interventions	0.3%	0.3%	2.1%	6.0%	91.3%
Update prevention plans	0.6%	1.8%	4.5%	13.3%	79.8%

Figure : Practices regarding fall prevention among nurses

Inferential Statistics

- **Sex differences:** Female nurses scored higher in both knowledge (p = 0.028) and practices (p = 0.017).
- **Education level:** Nurses with bachelor's degrees demonstrated higher attitude scores compared to diploma or doctoral-level nurses.
- **Tenure:** Longer service (>4 years) was associated with more positive attitudes, but not significantly with knowledge or practice.

Correlations among KAP Domains

Spearman's correlation revealed significant positive associations among knowledge, attitudes, and practices. Knowledge correlated moderately with both attitudes ($\rho = 0.445$, $p < 0.001$) and practices ($\rho = 0.371$, $p < 0.001$). The strongest relationship was between attitudes and practices ($\rho = 0.513$, $p < 0.001$), underscoring the importance of positive mindsets in shaping bedside behaviors.

Table 5. Correlation among KAP domains

Domains	ρ	p-value
Knowledge–Attitude	0.445	<0.001
Knowledge–Practice	0.371	<0.001
Attitude–Practice	0.513	<0.001

Discussion

This study assessed the knowledge, attitudes, and practices (KAP) of nurses toward fall prevention in King Faisal Specialist Hospital and Research Centre, one of the largest tertiary institutions in Saudi Arabia. Overall, the findings demonstrated a highly knowledgeable and motivated nursing workforce, with strong awareness of risk factors, favorable perceptions of prevention, and consistent implementation of safety protocols. Yet, gaps were observed in the translation of knowledge and attitudes into consistent bedside practices, highlighting a persistent implementation challenge.[14]

From a global perspective, the results mirror WHO reports that falls are among the leading causes of unintentional injury-related deaths and a key measure of patient safety standards. Nurses at KFSH&RC showed comparable knowledge levels to those documented in international studies, where staff consistently identified intrinsic and extrinsic fall risk factors and recognized the role of prevention in improving outcomes (Hill et al., 2018; Han et al., 2020). However, despite this knowledge, practical barriers such as patient resistance, workload pressures, and gaps in interdisciplinary communication emerged as recurring challenges, a trend also noted in hospitals across Europe and Asia . [15]

Within the Saudi context, the findings align with national statistics highlighting the high prevalence of fall-related injuries among children and older adults (AlSowailmi et al., 2018; Razik et al., 2020). Nurses' strong positive attitudes toward prevention may reflect the growing emphasis on patient safety within Saudi Vision 2030, which prioritizes quality of care and the adoption of evidence-based safety protocols (Innab, 2022; Alrimali et al., 2023). Nevertheless, the persistence of implementation gaps suggests that systemic challenges—including staffing levels, clinical workload, and varying leadership engagement—remain unresolved despite national reforms. This indicates the need for continued leadership-driven interventions and tailored training to bridge the gap between awareness and action.[16]

Comparison with Prior Studies (Asia, Europe, Middle East)

The study's findings converge with results from Asian investigations, where nurses generally demonstrated strong knowledge and favorable attitudes but inconsistencies in practice. For

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instance, Cho and Jang (2020) reported that South Korean nurses recognized fall risk factors yet often failed to translate knowledge into preventive care, largely due to workload constraints. Similarly, Tang et al. (2023) in Vietnam and Han et al. (2020) in South Korea found that although knowledge positively influenced engagement, sustainable outcomes required organizational support. These parallels highlight the universal challenge of moving from theoretical knowledge to practical adherence.

In Europe, comparable trends have been documented. Arıca and Koç (2025) found that institutional culture and leadership strongly influenced nurses' adherence to fall prevention strategies. Likewise, studies in the UK and Switzerland revealed that staff attitudes were consistently positive, but practices were compromised by environmental factors and patient complexity (Morris et al., 2022; Weber et al., 2024). These European studies support our finding that attitudes, more than knowledge, are strongly correlated with consistent preventive behavior, as shown by the robust correlation between attitudes and practices in our data.

Within the Middle East, the current study adds important evidence from a high-acuity Saudi tertiary hospital. Previous work in the region has noted moderate knowledge levels and variable protocol adherence (Innab, 2022; Alrimali et al., 2023). Our findings of higher knowledge scores may reflect the stronger safety infrastructure of KFSH&RC compared to smaller facilities. However, barriers such as patient resistance and communication gaps remain consistent with those reported in other Saudi and Gulf studies (Alsaad et al., 2024). Albasha et al. (2023) further emphasized that research on fall prevention in high-acuity settings across the Middle East is scarce, underscoring the novelty and importance of the present findings.

Taken together, these comparisons suggest that the challenges identified at KFSH&RC are not unique but reflect global patterns. While knowledge and positive attitudes are widespread, achieving consistent, sustainable bedside practices requires organizational reforms, leadership support, and integration of technological solutions.

Practical Implications: Training, Simulation, Digital Tools, Leadership

The study underscores the need for multifaceted interventions to strengthen fall prevention at both individual and organizational levels. Training programs should shift from one-time workshops toward ongoing, competency-based education incorporating simulation-based learning. Simulation exercises allow nurses to practice risk assessment, patient communication, and response to falls in a safe environment, improving their ability to apply knowledge under real-world pressures.[17]

Digital tools offer additional opportunities. The integration of predictive analytics into electronic health records, combined with real-time electronic alerts and wearable monitoring devices, could enable nurses to identify at-risk patients proactively. Embedding such tools into nursing workflows not only enhances efficiency but also supports consistent practice adherence even during periods of high workload.[18]

Leadership engagement is another critical factor. Strong managerial support was reported by most nurses in this study, but gaps in interdisciplinary communication suggest that leadership must extend beyond policy to foster collaboration across departments. Evidence from both Saudi and

international contexts shows that leadership-driven safety culture is a decisive factor in sustaining preventive practices (Morris et al., 2022; Ojo et al., 2022). Institutions should thus prioritize leadership visibility, promote shared accountability across disciplines, and ensure adequate staffing ratios to reduce competing workload demands.[19]

Contribution to Nursing Practice and Hospital Safety Culture

This study contributes to nursing practice by demonstrating that knowledge and attitudes, while necessary, are insufficient alone to ensure consistent fall prevention practices. The findings highlight the central role of attitudes in driving preventive behaviors, indicating that motivational and cultural dimensions are as important as clinical training. For nursing practice, this underscores the value of combining technical training with strategies that enhance professional responsibility, teamwork, and patient engagement.[20]

For hospital safety culture, the study emphasizes the importance of leadership and organizational structures in sustaining fall prevention. By illustrating the interrelationship between knowledge, attitudes, and practices, it supports the argument that patient safety is a shared responsibility requiring interdisciplinary collaboration. The findings can inform institutional policies aimed at embedding fall prevention within the broader safety climate, aligning frontline practices with the strategic objectives of Saudi Vision 2030.[21]

Conclusion

This study assessed nurses' knowledge, attitudes, and practices toward fall prevention at King Faisal Specialist Hospital and Research Centre, revealing strong awareness and favorable perceptions but highlighting gaps in consistent bedside implementation. Female nurses scored higher in both knowledge and practices, while educational attainment and tenure influenced attitudes. Importantly, attitudes were found to be more strongly correlated with practices than knowledge, underscoring the motivational dimension of safety behaviors.

Despite the progress made under Saudi Vision 2030, persistent challenges—such as workload, patient resistance, and limited interdisciplinary communication—continue to hinder consistent practice adherence. Addressing these barriers requires behavior-centered training, simulation-based education, and the integration of digital tools into nursing workflows. Furthermore, leadership-driven strategies are essential to strengthen teamwork, accountability, and culture of safety.

The study's findings contribute to the limited body of evidence on fall prevention in high-acuity Middle Eastern hospitals and provide actionable insights for advancing patient safety policies. Future research should evaluate the effectiveness of targeted interventions, including simulation training and technology-based solutions, to sustain fall prevention practices and reduce adverse outcomes across healthcare institutions.

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