Developing a Structure Model Based on Patient Safety Competencies, Values, and Attitudes to Promote Patient Safety Culture and Quality of Nursing Care

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ABSTRACT:

Background: The quality of nursing care is evaluated in terms of patient safety as the main criterion. However, the global patient safety environment has become frightening in recent years with frequent adverse outcomes from medical errors. Patient safety (PS) is a worldwide issue in that healthcare personnel have a moral duty to maintain patient safety within the healthcare system and this is a substantial burden for healthcare institutions.

Aim: This study aims to establish a structural model by assessing the dimensions of patient safety value, safety attitude and safety competency and their linkages with patient safety culture and quality of care.

Method: A descriptive cross-sectional design was adopted, and 290 patients and 250 nurses were included from all inpatient departments in both Prince Mohammed Bin Abdulaziz Hospital and Imam Abdulrahman Alfaisal Hospital. Five instruments were included in this study: the Patient Safety Value Questionnaire, the Safety Attitudes Questionnaire, the Patient Safety Competency Self-Rating Scale, the Patient Safety Culture Scale, and the Quality Nursing Care Scale (QNC).

Results: In the present study, 50.8% of the nurses assessed had a significant level of total patient safety value and more than half (57.6%) had increased total safety attitudes. The majority of the nurses tested showed high levels of total patient safety competency, a strong patient safety culture and high quality of nursing care with percentages of 82.8%, 86.8% and 81.2%, respectively.

Conclusions: There is a statistically significant positive link between patient safety competencies, values and attitudes and the patient safety culture and its association with quality of nursing care among the examined nurses in the two hospitals. Recommendations: Continuous organisational support and

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leadership commitment to patient safety to maintain nurses' expertise in patient safety, core principles and attitudes.

Keywords: Patient Safety Attitudes, Patient Safety Competencies, Patient Safety Culture, Patient Safety Values, Quality of Nursing Care.

Introduction

Patient safety prevents errors and harm during health care. Patient safety is crucial to healthcare since it reduces hospitalisations, expenses, and deaths. Hospital patient safety procedures are poorly documented. Patient safety can improve from near misses. Patient safety is measured by adverse events and near-misses (Torkaman, Sabzi, & Farokhzadian, 2022).Nursing Patient Safety Competencies affect healthcare quality. To enhance nursing teamwork. Health personnel must promote patient safety, operate in teams, communicate properly, manage safety hazards, optimise human and environmental factors, and identify, respond to, and report adverse situations. To increase PS competency, nurses should comprehend PS concepts and risk management (Huang et al., 2020). Value ranks and analyses patient safety interventions. This library examines the business case for cost-effective, efficient, and effective medical error prevention. Safety is the easiest manufacturing ethics standard to measure. A suite of solutions containing a core security concept, strategy, mission, vision, objectives, and more for enterprises (Hung, Wang, Moriarty et al. 2023). Safety attitude is people's thoughts and actions that influence their decisions. Nursing safety attitudes included work environment, stress, and patient safety. Positive attitudes towards patient safety encourage safety activities. Nursing attitudes regarding patient safety include their views and practices on medical error avoidance. Safety mentality and culture remain contentious. Positive views towards patient safety encourage safety measures (Ünver & Yeniğün, 2020). Patient safety often depends on safety cultures. All hospitals have nurses who monitor and organise care to keep patients safe. Nurses typically notice safety hazards and improve care in their workplaces. Improved nurses' patient safety competencies and culture reduce adverse events and improve patient safety (Liu et al., 2022). Patient safety culture improves results. Safety culture and outcomes can be improved with numerous interventions. Kumbi, Hussen, Abate Lette & Morka (2020) noted that patient safety culture may be examined at multiple stages of the health care system by assessing health care workers' thoughts, actions, and work. PS nurses supervise. Thus, they will provide patient-centered care, engage in interdisciplinary teams, use evidence-based practice, improve safety and quality, and meet 21st-century patient needs. Nursing students and staff need PS skills. International and national norms emphasise this. PS is not prioritised in nursing education (Lee, Lee, Peters, & Gwon, 2020) and does not link theory and practice. Great care begins with community health and outcomes. Timely, egalitarian, integrated, efficient, effective, safe, people-centered health care is needed. Nurse engagement and service quality are key health care performance indicators. These linked factors affect culture, performance, and patient outcomes. According to Kılıç and Cevheroğlu (2023), the nursing profession has faced unprecedented issues that have impacted the quality of care delivered by nurses. Thus, this study hypothesised that intensive care nurses' safety value, attitudes, and patient safety competency are independent variables (figure 1). Performance and patient safety culture depend. The current study hypothesised that intensive care nurses' safety value, attitude, and competency affect patient safety culture and performance. We compare hospital safety management, clinical nurse safety practices, and performance. Figure shows this study's theoretical assumption model.

1.1 Significance of Study

Patient safety is a global health priority. Quality care is shown. Patient safety underpins healthcare delivery, including adverse medication events. Medical blunders kill third most Americans. On 2.9% to 16.6% of occasions, unfavourable outcomes occurred. 25%–50% of these incidents were avoidable and killed 5%–13% of individuals. Healthcare providers should uncover system faults to improve patient outcomes, according to the Institute of Medicine (Han, Kim, & Seo, 2020). Doing no harm and preventing patient harm require healthcare to prioritise quality and safety. Most nurses work at patients' bedsides and must identify safety issues. They provide safe, high-quality care throughout illness progression. Healthcare quality and safety issues exist. 1 in 10 patients experience safety-related adverse events. Healthcare mistakes are widespread (Slawomirski, & Klazinga, 2020). PSC is essential for all patient-care workers to avoid errors and complications. Health care organisations should promote safety to reduce unpleasant events and errors. Trust-based communication, effective information flow, a common concept of safety, organisational learning, management and leadership commitment, and nonpunitive event and error reporting can create a patient safety culture in health care (Han & Roh, 2020). In health care, nurses protect and aid patients. Frontline health care personnel see patients most. To improve nursing care and culture, this study created a structural model based on patient safety competences, values, and attitudes.

1.2 Aim of the present study

The present study aimed to develop a structure model based on determining the levels of patient safety value, safety attitude and safety competency and to explore the associations with patient safety culture and quality of care.

1.3. Research Hypotheses

Patient safety value correlates with patient safety culture, attitudes, competency and quality of care among nurses

2. Method

2.1 Design:

A descriptive cross-sectional design was used (Grove, & Gray,2019).

2.2 Setting:

This study was conducted in all inpatient units at both Prince Mohammed Bin Abdulaziz Hospital (PMAH) with bed capacity (500) beds and Imam Abdulrahman Alfaisal Hospital with bed capacity (200) beds

2.3 Participants:

A convenience sample was utilized for two groups namely; patients' group (n=290 patients) and nurses' group (n=250 nurses). All patients and nurses who were available at the time of data collection and willing to participate in the study

2.4 Tool of data collection

In the present study five tools were employed; Patient Safety Value Questionnaire, Safety Attitudes Questionnaire, Patient Safety Competency Self Rating Scale, Patient Safety Culture Scale and Quality Nursing Care Scale (QNC).

Tool I. Patient Safety Value Questionnaire :
It consisted of two parts as:

Part (1): It was utilised for determining the personal characteristics of the nurses such as age, sex, years of experience, educational qualification, marital status, work department and the

Part (2): Hu et al., (2021) created it to estimate nurses' safety value. It consists of 15 measures that were divided into two dimensions, espoused value (7 items) and practiced value (8 items). Respondents answered on a 6-point Likert type scale from 1 (strongly disagree) to 6 (strongly agree).

Scoring system:

Patient Safety Value Questionnaire was classified into three categories based on a predetermined cut-off point (50%), as follows:

- Low level (<50% of the total score)

- Moderate level (50%<70% of the total score)
- High level (≥70% of the total score)

Tool II. Safety Attitudes Questionnaire

Guo & Zhou (2010) designed the scale to measure the attitudes of healthcare sector nurses on the issue of workplace and patients' safety. It had 31 measures in 6 dimensions: teamwork climate (6 items), safety climate (7 items), job satisfaction (5 items), stress recognition (4 items), opinions of management (4 things) and working circumstances (5 items). Responses were made on a 5-point Likert-type scale from 1 (never) to 5 (always).

Scoring system:

Safety Attitudes Questionnaire was classified into three categories based on a predetermined cut-off point (50%) as follows:

- Low level (<50% of the total score)
- Moderate level (50%<70% of the total score)
- High (≥70% of the total score)

Tool III. Patient Safety Competency Self-Rating Scale

It was developed by Wang et al., (2020) and consisted of 35 items measuring six patients' safety competency dimensions: patient-centered care (4 items), clinical practice (10 items), continuous quality improvement (5 items), evidence-based nursing practice (4 items), patient safety culture (5 items) and safety risk management (7 items). Responses were scored on a 5-point Likert-type scale ranging from never (1) to always (5).

Scoring system: as follows:

- Low level (<50% of the total score)
- Moderate level (50%<70% of the total score)
- High level (≥70% of the total score)

Tool IV. Patient Safety Culture Scale

It was established by The Agency for Healthcare Research and Quality (AHRQ), (2019) to measure the culture of patient safety among nurses. It was composed of 30 items which were grouped in 9 domains as follows; teamwork (4 items), staffing and work pace (4 items), organisational learning (3 items), response to error (3 items), clinical managers support for patient safety (3 items), communication and feedback about error (3 items), communication openness (3 items), hospital management support for patient safety (3 items), and handoffs and information exchange (4 items). Respondents assessed the items on a 5-point scale ranging from (1) "strongly disagree" to (5) "strongly agree" for all things, except items of two domains (communication and feedback regarding error and communication openness) ranging from 1 for never to 5 for always.

Scoring system:

Patient Safety Culture Scale was classified into three categories based on a predetermined cut-off point (50%) as follows:

- Low level of patient safety competency (<50% of the total score)
- Moderate level of patient safety competency (50%<70% of the total score)
- High level of patient safety competency (≥70% of the total score)

Tool V. Quality Nursing Care Scale (QNC)

It included two parts:

Part (1): Used to assess the personal characteristics of the study patient such as age, gender, marital status, and level of educational qualification.

Part (2): Developed by Senarath & Gunawardena (2011) to measure the patient perception of the quality of nursing treatment. It consists of 36 items categorised into eight dimensions: interpersonal relationships between nurses and patients (12 items), efficiency in serving patients (7 items), comforts in ward (4 items), sanitations (3 items), personalised information (3 items), physical environment in the ward (3 items), giving general instructions by nurses (2 items), and competency of nurses caring for patients (2 items) . Respondents

(patients) were asked to rate the quality of nursing care and related hospital services on each item on a 5-point Likert scale from 1 (dissatisfied/disagreed) to 5 (completely satisfied/agreed).

Scoring system: as follows:

- Low level (<50% of the total score)
- Moderate level (50%<70% of the total score)
- High level (≥70% of the total score)

2.6 Validity and Reliability

Five women's health and midwifery nursing experts evaluated the instrument's validity. They said the changes were justified because some sentences were streamlined for women. The tool's reliability was assessed using Cronbach's α analysis in SPSS version 22, delivering an alpha value of 0.893, indicating high reliability.

2.7. Ethics

The Mansoura University Faculty of Nursing Research Ethical Committee approved (IRB=675). The two hospitals' administrators approved the trial. All nurses and patients were informed that their participation was voluntary and that they might leave the study at any moment. All participants were assured of data confidentiality and research sample anonymity throughout the experiment. Participants verbally agreed to the study after being informed of its purpose.

2.9 Pilot

A pilot study was conducted before data collection on 10% of the study sample (n=29 patients) and (n=25 nurses) randomly selected to test and ensure the clarity and applicability of the tools and calculate each participant's time to answer the tool's questions. Pilot participants were removed from the study.

2.10. Data Gathering

Data was collected for this investigation as follows:

From October 2024 to March 2025, data was collected for 6 months.

The study was approved by the Research Ethical Committee of Mansoura University Faculty of Nursing and authorised by the relevant administrator of both Saudi Arabian hospitals.

Permission was obtained from the director of both Saudi Arabian hospitals. The researcher explained the study's goals and how to complete questionnaires.

The questionnaire (I, II, III & IV) took nurses 30-45 minutes to complete. Patients took 20–30 minutes to complete the fifth quiz. The data were collected on Sunday, Wednesday, and Thursday after the morning and afternoon shifts.

- Nurses and patients were informed of their freedom to withdraw from the trial at any time.

2.11. Statistical Analysis

The acquired data were organised, tabulated and statistically analysed using SPSS software (Statistical Package for Social Sciences, version 25, SPSS Inc. Chicago, IL, USA).

3. Results

Table (1) Characteristics of the nurses studied in the two institutions. The mean score of one fifth of the nurses (44.8%) who were 40 years or older was 28.14±3.74. The nurses studied were predominantly women (74.4%) and married (69.6%). Most of them (90.4%) held bachelor's degrees, 48.4% had more than 10 years of experience and 44.8% worked in medical departments.

Figure (1) illustrates the value of total patient safety by nurses in both institutions. As shown in Figure 5, 50.8% of nurses in Dariya Hospital had high patient safety values and 20.8% had bad values.

The nurses' attitude towards safety at both institutions is seen in figure (2). The study indicated that 57.6% of nurses had a positive safety attitude.

Figure (3) shows the rating of patient safety abilities by nurses in the two hospitals. Most nurses (82.8%) in the two institutions had strong competences for patient safety. Nurses lacked patient safety skills 5.2%.

Figure (4) illustrates nurses' perception of the patient safety culture in both institutions. As can be shown, among the nurses assessed in both

institutions, 86.8% had a high patient safety culture and 1.6% had a low one.

Table (2) shows the association between patient safety value, attitude, and culture among nurses with total competency ratings. All pairwise relationships between patient safety culture, value, attitudes and self-evaluated safety competency were positive (p=0001).

Table (3) demonstrates personal qualities of residents in both facilities. Most of the patients between age 30-□□40 had mean score of 37.25 ±3.60 (81.4%) . The majority of patients (60.7%) were female. A third (29.7%) were read and write. 69.0% were married.

(5) Patient's perceptions of the quality of nursing care in both facilities. The majority of the patients studied (81.2%) reported good quality of nursing care in both facilities, while only 3.6% reported low quality.

Figure (6) shows the total variables for the two universities. High competency, value, attitudes, culture and quality of nursing care for patient safety were reported by nurses and patients at both institutions.

Table (1): Personal characteristics of the studied nurses at both hospitals (n=250)

Variables	No	%
Age (Years)		
▪ 20-25	43	17.2
▪ >25-30	47	18.8
▪ >30-40	48	19.2
▪ ≥40	112	**44.8**
Mean ±SD	*34.63±7.75*	
Sex		
▪ Male	64	25.6
▪ Female	186	**74.4**
Experience (Years)		
▪ 1-5	72	28.8
▪ >5-10	57	22.8
▪ >10	121	**48.4**
Mean ±SD	*9.88±5.45*	
Educational qualification		
▪ Diploma Degree	21	8.4
▪ Bachelor Degree	226	**90.4**
▪ Master Degree	3	1.2
Marital status		
▪ Single	44	17.6
▪ Married	174	**69.6**
▪ Widow	27	10.8
▪ Divorced	5	2.0
Work department		
▪ Medical	112	**44.8**
▪ Surgical	22	8.8
▪ Emergency	48	19.2
▪ ICU	20	8.0
▪ Outpatient	48	19.2

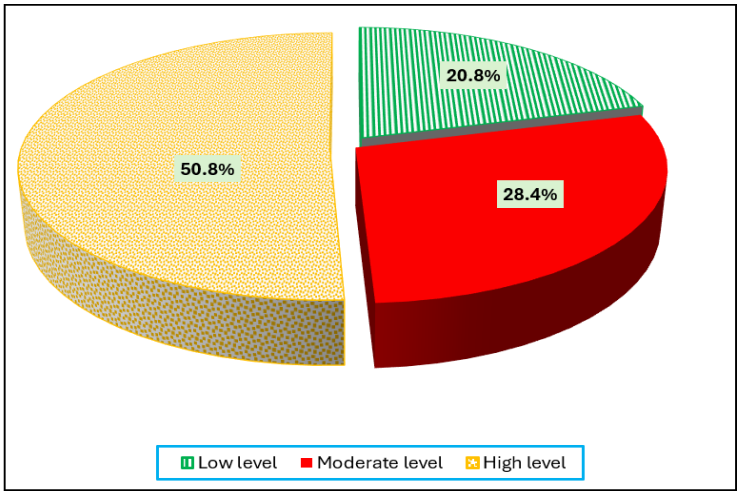

Figure (1): Levels of total patient safety value as perceived by the studied nurses at both hospitals (n=250)

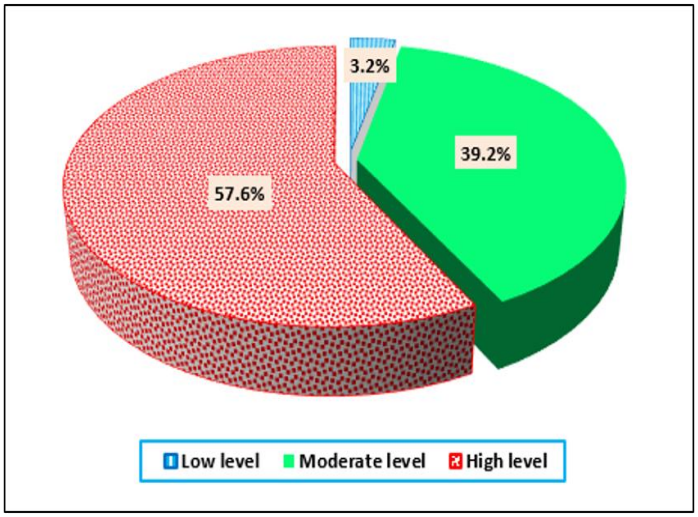

Figure (2): Level of total safety attitudes as perceived by the studied nurses at both hospitals (n=250)

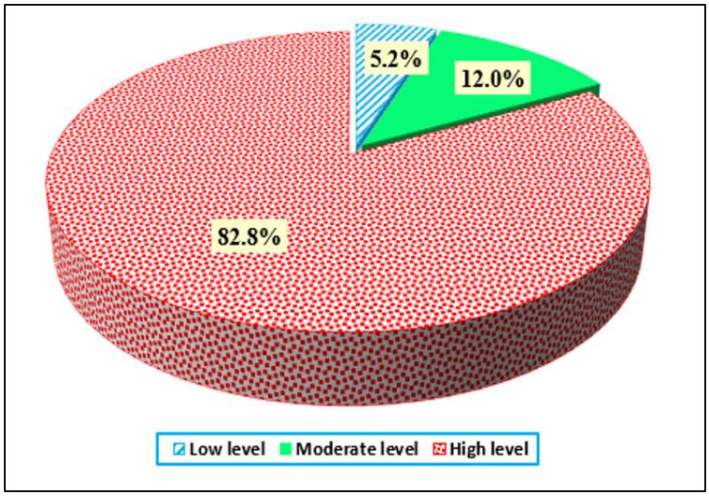

Figure (3): Level of total patient safety competency as perceived by the studied nurses at both hospitals (n=250)

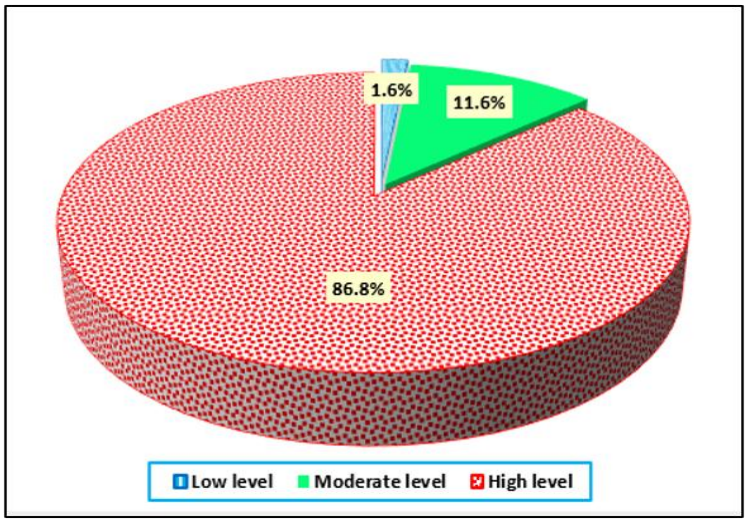

Figure (4): Level of total patient safety culture as perceived by the studied nurses at both hospitals (n=250)

Table (2): Correlation between total scores of patient safety culture and patient safety value, patient safety attitudes and patient safety competency among the studied nurses both hospitals (n=250).

Variables	Total scores among the studied nurses (n=250)					
	Patient Safety Value		Patient Safety Attitudes		Patient Safety Competency	
	r	p value	r	p value	r	p value
Total patient safety culture scores	**0.910**	**0.0001****	**0.942**	**0.0001****	**0.910**	**0.0001****
Total patient safety value scores	-	-	0.887	0.0001**	0.952	0.008*
Total safety attitudes scores	0.874	0.0001**	-	-	0.958	0.0001**
Total safety competency self-rating scores	0.881	0.0001**	0.839	0.0001**	-	-

****Statistically significant (p<0.01)** **r=Correlation Coefficient**

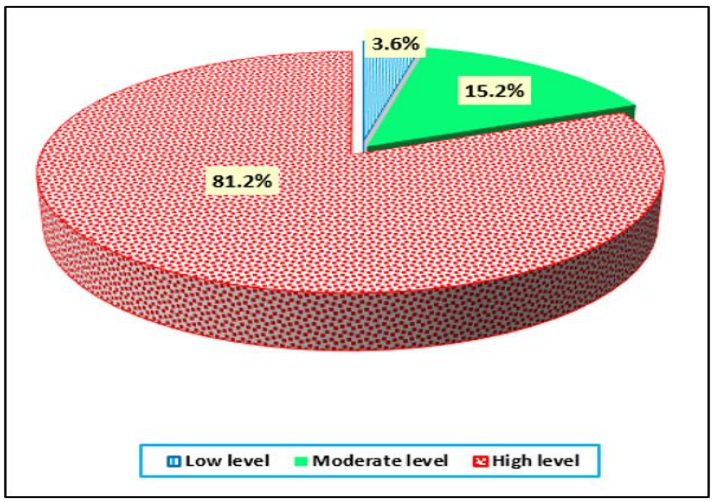

Figure (5): Level of total quality of nursing care as perceived by the studied patients at both hospital (n=290)

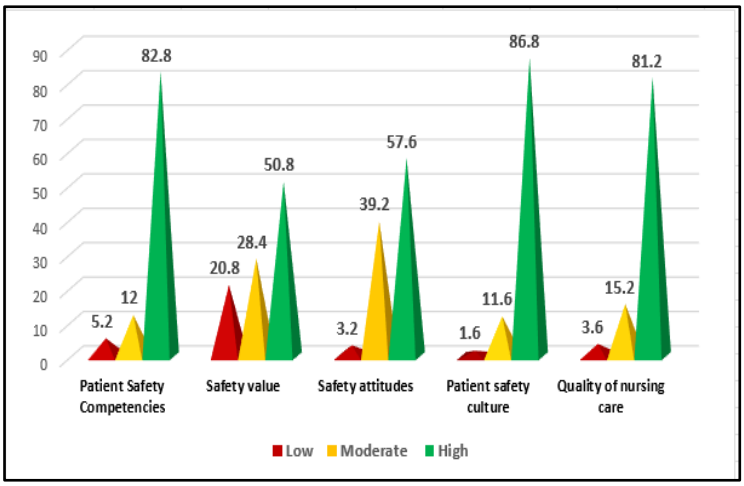

Figure (6): Levels of total the studied variables at both hospitals

4. Discussion

A competency-based patient safety paradigm encourages nurses to use knowledge, technical skills, communication, teamwork, and risk management. Skills alone are insufficient without professional values and safety-oriented attitudes. Accountability, ethical responsibility, transparency, and respect for patients motivate nurses to provide safe care, while vigilance, readiness to admit mistakes, and openness to learning from them promote proactive safety. A single model supports safe decision making and continuous quality improvement by linking competencies, values, and attitudes (Zaitoun, Said, & de Tantillo, 2023). Half of nurses at both institutions had good patient safety skills, the survey showed. Very few nurses indicated low patient safety competence, emphasising the need for ongoing education and assistance. Rabea, Ghanem, & Ibrahim (2025) found that most Alexandria Main University Hospital critical care nurses have moderate to high patient safety skills. They advised legislators and nursing leaders to fund patient safety competency training. A worldwide health system study indicated that nurses in all nations had moderate patient safety abilities, suggesting a pattern that could influence global interventions (Karanikas, Weber, Bruschi, and Brown, 2022). Nurses were average in patient safety and outperformed some groups, demonstrating the value of training and experience (Illig, 2022). This is congruent with Torkaman, Sabzi, & Farokhzadian (2022), who showed that structured patient safety teaching improved proficiency in most participants. This poll indicated that over half of nurses at both hospitals value patient safety. Because nurses' clinical function is action-oriented and based on experience, they may assure patient safety through everyday routines rather than formal statements. Nurses in both institutions prioritise following protocols, monitoring patients, and avoiding errors over discussing or documenting patient safety values. Dombrádi et al. (2021) confirmed this study's findings on value-based healthcare patient safety culture. The authors said values in clinical practice, not just formal announcements or organisational rhetoric, improve patient safety. Similar to their conclusion that enacted values—those that impact habitual behaviour and decision-making—shaped patient safety culture more than proclaimed or written principles. The study confirmed Brás, Ferreira, Figueiredo, & Duarte (2023) that nurses' daily clinical actions, safe procedure adherence, and bedside situational awareness reflected patient safety culture. Data suggest safety culture is more about actual application than abstract or declarative aspects. This supports recent findings that practiced value outweighs stated value. Over half of nurses surveyed were safety-conscious. This indicates good hospital safety and support. The positive hospital culture that prioritises patient safety through protocols, procedures, and safety

inspections may explain this. Strong leadership commitment and competent managerial assistance likely enhanced nurses' faith in organisational safety activities, and non-punitive error reporting promoted safety. Continuing education and training may have improved nurses' patient safety skills. As expected, Al-Mugheed & Bayraktar (2020) found that most north Cyprus critical care nurses had a positive patient safety attitude and organisational culture. More than half of the nurses studied had strong safety attitudes, consistent with their reports of positive nurse attitudes and supportive institutions. Salih, Reshia, Bashir, Omar, & Elwasefy (2021) found that many nurses at Mansoura University Hospital had positive safety attitudes, especially organisational commitment to safety and safety behaviour adherence. Results support prior findings and university hospital nurses' safety culture view. This poll indicated most nurses in both institutions respected patient safety. Organisational standards and leadership may stress error reporting and managerial aid as patient safety measures, making them more visible and structured for staff. Workload, personnel levels, and unit dynamics might impair staff interpersonal coordination, communication, and collaboration, which may explain why teamwork is less established.

Alsaleh et al. (2025) found that most nurses have a positive patient safety culture and five composite strengths: teamwork within units, organisational learning continuous improvement, and management support for patient safety.

Fekadu et al. (2025) observed that most Eastern Ethiopian public hospital nurses value patient safety. They found that Ethiopian public hospitals, especially the ICU, must strengthen patient safety culture to reduce healthcare risks and increase patient safety. Good leadership, patient safety training, and enough resources are needed to fix these difficulties.

Ndlela et al. (2025) investigated five Eswatini public government hospitals' patient safety culture. The survey showed participants accepted the average positive patient safety culture (PSC) score. Staffing, safety culture, leadership support, and organised error reporting are needed to improve patient safety culture at Eswatini's public hospitals.

This study found that most patients in both hospitals had excellent nursing care. Professional nurses, evidence-based methods, and organisational support may provide high-quality care. Clinically experienced nurses with ongoing professional development are more likely to assess, intervene, and offer patient-centered care.

In their concept analysis of quality nursing care, Juanamasta, Aungsuroch, & Gunawan (2021) stressed that patient-centered concepts help nurses perform professional nursing and demonstrate high-quality caring behaviours. When organisational and personal conditions are correct, nurses display compassion, respect, and competence, according to study. The recent survey found that roughly three-quarters of staff nurses provided good treatment.

According to a Saudi Arabian study by Khademi, Abdi, Saeidi, Piri, & Mohammadian (2021) on emotional intelligence, nursing care quality, and professional development, nurses consistently provided high-quality care related to professional values and patient satisfaction.

This study demonstrated a substantial correlation between nurses' patient safety values and culture. Nurses may build and strengthen safety ideals through patient safety culture. Safe workplace norms, priorities, and expectations promote patient well-being and harm prevention, shaping nurses' personal and professional values. Mistri, Badge & Shahu (2023) suggest encouraging hospital patient safety in an environment supported by leadership, cooperation, and protocols. Nurses are more likely to internalise these ideas and adopt the company's safety culture. They believed the nursing team's safety values were essential to patient and procedural safety. Congruence supports the study's finding that nurses' safety values complement healthcare organisations' safety culture.

Culture significantly correlated with patient safety attitudes. Nurses' patient safety views are heavily influenced by organisational culture. Shared principles, clear expectations, and consistent safety norms help nurses prevent errors, report them, and practice safely in a good patient safety culture.

Dental nurses' knowledge, attitude, and behaviour towards patient safety targets were evaluated by Wijaya, Rohendi, & Widjaja (2024), corroborating the current findings. The study found that nurses' safety attitudes greatly influenced safety procedure implementation, which is vital to patient safety culture. This aligns with previous findings by indicating that safety attitudes and culture are closely related. This study found statistical significance for patient safety competency and culture. Nurses need a patient safety culture to develop and use their safety skills. A strong patient safety culture promotes education, evidence-based practice, teamwork, and open communication, which helps nurses develop patient safety knowledge, skills, and clinical judgement. This study confirmed McGaffigan (2024)'s leadership-driven safety culture shift in healthcare firms. This conceptual and practice-oriented study demonstrated that physician competence increases when a mature patient safety culture incorporates safety concepts into daily practice, decision-making, and accountability systems. The study indicated safety culture drives patient safety competency. A rigors integrative evaluation by Glarcher & Vaismoradi (2025) explored how specialist nurses improve patient safety. A healthy safety culture affects advanced safety competences like risk foresight, error avoidance, and clinical judgement. It supports their model's safety competency-safety culture link. Competent nurses apply safety concepts to routine practice, establish a safe atmosphere, and reduce errors and increase care quality (Zaitoun, Said, & de Tantillo, 2023). Good safety cultures promote non-punitive error reporting, learning, and communication to reduce adverse events and improve health care (Alanazi, Sim, & Lapkin, 2022).

Zaitoun, Said, & de Tantillo (2023) concluded that patient safety competency, positive attitudes, and a strong safety culture improved care and outcomes. Patient safety culture improves treatment quality, according to Janghorban et al. (2025). Bartoníčková et al. (2025) discovered high correlations between nursing care quality and safety culture traits. Nurses who prioritised safety reduced falls, medication errors, and pressure ulcers and increased patient satisfaction (Alanazi, Sim, & Lapkin, 2022).

Final thoughts and suggestions

This study found that most nurses had outstanding patient safety competence and more than half had strong patient safety values, with practiced values higher than stated values. Over half of nurses had positive safety attitudes, especially on working conditions and management. In response to error, organisational learning, and communication, most nurses rated patient safety culture high. Most patients also praised the nurses' expertise, interpersonal skills, and efficiency. Nurses at Prince Mohammed Bin Abdulaziz Hospital and Imam Abdulrahman Alfaisal Hospital found a statistically significant positive correlation between patient safety competences, values, attitudes, culture, and nursing care quality.

Recommendations

The study suggested the following:

Director of Nursing

- Organisational support and leadership commitment to nurses' patient safety knowledge, values, and attitudes
- Make error and near-miss reporting polite and non-punitive.

For Charge Nurses

- Encourage nurses to participate in patient safety and regulation communication.
- Setting measurable patient safety standards. Using and supporting a safety culture assessment for all nurses achieves this.

Staff nurse

• Attending patient safety and quality improvement courses.

• Follow patient safety, organisational, and evidence-based nursing practices.

• Report errors and near misses to improve organisational learning and prevent errors.

Level of education:

• Nursing schools should teach patient safety values, skills, and culture.

Better clinical practice requires professional nursing education, including evidence-based patient safety and quality outcomes.

For more research

• Coordinating with other health care settings, larger samples, and interdisciplinary teams to confirm and generalise findings.

• Investigated causal links between patient safety skills, values, attitudes, culture, and nursing care quality using longitudinal study designs.

• Conduct interviews or focus groups to examine nurses' opinions on patient safety skills, values, and culture.

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