JOURNAL OF INTERNATIONAL CRISIS AND RISK COMMUNICATION RESEARCH
ISSN: 2576-0017
2024, VOL 7, NO S8

Awareness and Knowledge of Patient Safety Among Healthcare physician in Prince Abdulaziz bin Musaed Hospital, Arar, Saudi Arabia: A Cross-Sectional Study

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Abstract: This study explores the awareness and knowledge of patient safety among physicians at Prince Abdulaziz bin Musaed Hospital in Arar, Saudi Arabia, focusing on identifying strengths and gaps in the hospital's safety culture. Patient safety is a critical component in healthcare, and understanding physicians' perspectives on safety protocols is essential for improving care quality and reducing adverse events. Using a cross-sectional survey methodology, data were gathered from 92 physicians across various specialties within the hospital. The survey included questions on teamwork, staffing, error reporting, and communication during patient transitions. The results indicate a generally supportive safety culture, with strong teamwork and leadership commitment to patient safety perceived by the majority of respondents. However, significant challenges were noted, particularly related to staffing adequacy, inconsistent error reporting, and communication during patient handovers. Over two-thirds of participants reported that staffing shortages impacted their ability to deliver safe care, while underreporting of near-miss events indicated a need for a non-punitive error-reporting culture. Communication issues during patient transitions were also highlighted, suggesting a need for standardized handover protocols. The study concludes that while a solid foundation for patient safety exists, addressing staffing issues, promoting consistent error reporting, and standardizing communication can strengthen the hospital's safety culture. These findings have implications for healthcare facilities in similar settings, emphasizing the importance of a proactive approach to patient safety that includes sufficient staffing, supportive leadership, and a culture that encourages learning from errors to enhance patient care quality and safety outcomes.
Keywords: Patient safety, healthcare quality, error reporting, staffing adequacy, teamwork, safety culture, communication protocols, non-punitive culture

1. Introduction

Healthcare systems worldwide prioritize patient safety to prevent harm. Effective safety standards and a culture of safety at healthcare institutions can prevent adverse occurrences like healthcare-associated infections, prescription errors, and surgical complications, according to the WHO (Vinay, 2016). Patient safety has been a priority of healthcare reform in Saudi Arabia and other countries as medical errors become a public health issue (Vilstrup et al., 2014; Tegagn et al., 2017; Suyagh et al., 2015). Prince Abdulaziz bin Musaed Hospital in Arar, Saudi Arabia, is a major healthcare institution for varied patients. The hospital, like many others, struggles to assure patient safety due to modern healthcare's complexity, resource limits, and staff's lack of patient safety awareness (Stampoltzi et al., 2020; Sathiananthan et al., 2021; Santos et al., 2014). To ensure patient well-being and deliver high-quality care, clinicians must be knowledgeable about patient safety stand- ards.

International studies have evaluated healthcare workers' patient safety awareness and understanding, but few have examined Saudi physicians, especially in rural areas like Arar (Rejeb, 2017). Patient care and clinical

decision-making depends on doctors. Promote hospital safety by understanding patient safety principles including medical error avoidance and safety incident reporting (Reang et al., 2015). This study identifies knowledge and awareness gaps to illuminate hospital patient safety culture. It suggests actions and educational initiatives to increase patient safety knowledge and behavior, improving treatment.

Patient safety has become a global issue, especially in healthcare, where medical blunders can kill. Saudi Arabia's healthcare services are improving patient outcomes and quality (Nisa et al., 2018). Over the past two decades, patient safety research has focused on safety standards and clinical error avoidance. Preventing patient damage in healthcare is patient safety (Mrayyan, 2022). Leading physicians must safeguard patient safety. Their knowledge of patient safety protocols and risks affects care quality (MM, 2019).

Several studies suggest that practitioners, especially in developing nations, lack patient safety knowledge. Poor training, no uniform patient safety curriculum in medical education, and no patient safety-focused ongoing professional development programs contribute to this gap (Lim, 2019). Healthcare workers may make medical mistakes due to workloads and time pressures, endangering patients (Lawati et al., 2019). Physician-patient safety awareness is also affected by healthcare organization safety culture. In Saudi Arabia and other hospitals, hierarchical healthcare systems prevent open discussion about errors and near misses (Lawati et al., 2017). Physicians may underreport errors to avoid blame and miss learning opportunities (Lavin et al., 2015). Studies show that physicians and other healthcare personnel are more likely to adopt proactive safety when errors are perceived as learning opportunities rather than punishment. Patient safety and error talks can raise healthcare providers' knowledge and understanding (Kopciuch et al., 2019).

Prince Abdulaziz bin Musaed Hospital and other Saudi institutions prioritize patient safety. Effective safety protocols are hard to apply (Kishimoto, 2019). One factor is the lack of a medical error tracking and safety compliance system. Some hospitals in the region have patient safety protocols, but they are not consistently applied, and physicians' awareness varies (Kim & Choi, 2024). Research shows that many healthcare providers comprehend patient safety but not adverse event prevention techniques (Kamran et al., 2018). Busy, high-pressure hospitals can potentially threaten patient safety. Emergency room and intensive care unit doctors sometimes work under tight deadlines, which can lead to errors (Jacob et al., 2022). Burnout, fatigue, and excessive patient-to-staff ratios can cause safety problems (Inácio et al., 2016). This highlights the need for better organizational assistance, including standardized safety procedures and a safer workplace to reduce errors (Hallit et al., 2018).

Physicians need ongoing training to increase patient safety. Training on patient safety and error-prevention technologies minimizes adverse occurrences, (Gupta et al., 2015; Gampetro et al., 2019). Simulation-based training improves doctors' safety risk management. Patient safety training is beneficial, but many Saudi hospitals, especially those in smaller cities like Arar, have not fully integrated it into physician professional development programs. To improve patient safety, doctors must stay updated on guidelines and best practices (Fouzan, 2022). Patient safety can be improved by hospital technology. Doctors can reduce errors with real-time patient data, safety alarms, and decision support tools from Electronic Health Records (EHRs) and other Health Information Technologies (HITs) (Esmaeilzadeh & Sambasivan, 2012). These technologies work best when practitioners are well-taught. Physicians at Prince Abdulaziz bin Musaed Hospital must get significant EHR and patient safety technology training (Elvretta et al., 2021).

Patient safety committees evaluate hospital safety procedures and advise professionals. These committees review occurrences, identify errors, and advise hospital changes in Saudi Arabia. These committees may lack the power or resources to implement safety programs (Elmorsy et al., 2024). By strengthening patient safety committees and following their suggestions, physicians can increase their safety knowledge and accountability (Elmorsy et al., 2022). Continuous education, a strong safety culture, technological investment, and patient

safety committee empowerment must solve these issues (Ballangrud et al., 2012). Prioritizing these areas helps hospitals guarantee physicians have the knowledge and abilities to ensure patient safety and high-quality care (B et al., 2023).

In recent decades, policymakers, healthcare practitioners, and researchers have prioritized patient safety worldwide. As healthcare becomes increasingly complex, medical errors can cause discomfort, incapacity, or death (Asem et al., 2019). WHO and other international bodies advise healthcare systems to prioritize patient safety for safe and effective delivery (Appelbaum et al., 2016). Patient safety is a significant priority since medical errors, preventable adverse events, and safety accidents plague healthcare systems worldwide. Physicians must be involved and informed to build a patient safety culture (Ammar et al., 2022). Abdulaziz bin Musaed Hospital in Arar, Saudi Arabia, is a Northern Borders hospital hub. Saudi Arabia created this hospital to meet population demands, demonstrating its dedication to healthcare and quality of life (Alwabel et al., 2015). The hospital is part of Saudi Arabia's national healthcare agenda. This program tackles urban-rural healthcare access gaps. King Abdulaziz bin Musaed Hospital has modern equipment and trained staff (Alsulami et al., 2019). The hospital has extended and upgraded to keep up with medical knowledge and technology since its foundation. Today, it provides healthcare to Arar residents and adjacent residents (Alslubi & El-Dahiyat, 2019).

Multi-specialty Abdulaziz bin Musaed Hospital offers many services. The hospital has modern emergency, surgery, internal medicine, pediatrics, OB/GYN, orthopedics, and cardiology departments. Emergency departments address urgent illnesses 24/7 (AlShammari & Almoslem, 2018). MRI, CT, and ultrasound are available at the hospital's advanced imaging center. Accurate diagnosis and treatment planning improve patient outcomes in these settings. To safely and rapidly perform complicated procedures, the hospital has renovated operating theaters with the latest surgical gear (Alshammari et al., 2015). The Abdulaziz bin Musaed Hospital prioritizes prevention and health education. Immunization, health education, and community engagement foster a healthy community (Alshammari et al., 2019).

Staff dedication makes Abdulaziz bin Musaed Hospital successful. Top medical schools train many of the hospital's doctors, nurses, and allied health professionals (Alshammari et al., 2021). Combining local and foreign knowledge improves patient care. The hospital prioritizes staff workshops on innovative medical methods and technologies. Healthcare providers are prepared for evolving patient needs by this education (Alshammari et al., 2021). The community relies on Abdulaziz bin Musaed Hospital's teaching, research, and healthcare. The hospital promotes public health and healthcare with local health organizations and governments (Abdel-Latif & Abdel-Wahab, 2015). Abdulaziz bin Musaed Hospital will grow to meet population healthcare demands. Specializations, telemedicine, and patient care technologies are planned. These programs help the hospital lead Northern Borders healthcare (Abdussalam Alshehri et al., 2018). Saudi Arabia's Abdulaziz bin Musaed Hospital in Arar is vital and demonstrates its commitment to quality care. The hospital's comprehensive services, skilled staff, and community-focused programs improve patient health (Al abbas, 2021).

Hospitals are high-risk due to medical intricacy, technological technology, and precise human decision-making. Healthcare errors can occur during diagnosis, treatment, and hospital procedures (Al Hamid et al., 2019). Hospitals must create comprehensive safety protocols to protect patients (Al Malki et al., 2017). A good patient safety culture requires healthcare providers to know safety regulations and disclose safety issues without fear of consequences. A "just culture" promotes learning from mistakes, not blaming (Al-Khaldi, 2013). Feedback, learning, and teamwork assist healthcare workers enhance patient safety (AL-Mugheed et al., 2022).

To close the knowledge gap, this study examines physicians' patient safety awareness and knowledge at Prince Abdulaziz bin Musaed Hospital in Arar, Saudi Arabia. This inquiry will identify the hospital's patient safety

culture and suggest improvements (Almandil, 2016). Learning how physicians see patient safety and their awareness of safety regulations can help hospital administration and policymakers plan targeted actions like training and education to improve physician safety (AlOlayan et al., 2020). Hospitals can improve patient care, and reduce medical errors, and health outcomes by improving safety. This project aims to improve patient safety in healthcare systems worldwide, particularly in places with safety issues with the objectives to identify gaps and misconceptions, evaluate the influence of demographic factors, and provide recommendations for targeted educational interventions to foster a culture of safety within the hospital.

2. Materials and Methods

This cross-sectional study investigates physician-patient safety awareness and knowledge at Prince Abdulaziz bin Musaed Hospital in Arar, Saudi Arabia. Stratified random sampling chooses 92 doctors from various specializations. Physicians with over a year of experience are included; those with less are excluded. The main data source is the Agency for Healthcare Research and Quality's Hospital Survey on Patient Safety Culture (HSOPS) (Alshammari et al., 2021). Email surveys are sent from June to July 2024. All participants consent willingly and remain anonymous. Data is examined using IBM SPSS Statistics 23.0. Survey and demographic data are represented by means, percentages, and standard deviations. Statistical techniques including t-tests, chi-square tests, and ANOVA determine demographic-patient safety awareness connections. Statistical significance is set at $p < 0.05$, and normality checks ensure proper use of parametric or non-parametric tests (Asem et al., 2019).

2.1. Research Design

Physicians at Prince Abdulaziz bin Musaed Hospital in Arar, Saudi Arabia, are assessed for patient safety awareness and knowledge in this cross-sectional study Cross-sectional designs gather data from participants at once to assess patient safety knowledge. This method is ideal for the study since it collects quantifiable data that can be analyzed for trends, patterns, and links. This design incorporates physician demographic variety in knowledge and awareness, including specializations, experience, and department roles (Vinay, 2016). This study uses an HSOPS-based structured questionnaire from the Agency for Healthcare Research and Quality (Suyagh et al., 2015). Validated instrument examines patient safety awareness in teamwork, communication, and incident reporting. Cross-sectional design and standardized survey ensure complete and comparable data, showing hospital physicians' patient safety knowledge. This approach will shape hospital safety and culture (Stampoltzi et al., 2020).

2.2. Participants/Sample/Study Sample

At Prince Abdulaziz bin Musaed Hospital in Arar, Saudi Arabia, doctors are tested on patient safety. This study includes all hospital-employed physicians, regardless of function, experience, or department. This broad inclusion ensures the study can obtain hospital patient safety perspectives. The target market is hospital-employed physicians with at least one year of experience from various departments and specialties. This guarantees that participating physicians have enough hospital knowledge to handle patient safety protocol and practice queries. Physicians under one year of experience may not know the hospital's systems, safety culture, and protocols, so they are excluded.

Representative samples use stratified random sampling. This strategy ensures the study includes clinical and non-clinical physicians equally. Stratified random sample enables the research team divide the population by department, expertise, or employment (Papagiannis et al., 2020). This ensures the sample comprises surgeons, internal medicine, emergency physicians, pediatrics, and other relevant physicians. Frontline clinical, non-clinical, and administrative physicians are included. Hospital data indicate 120 physicians qualified for the trial. Calculate sample size with Cochran's formula. Social science researchers utilize Cochran's approach to calculate statistical power's minimum sample size. Calculations take into account planned margin of error,

confidence level, and population percentage. The study team assigns a 5% margin of error to guarantee results are within 5% of population values. The anticipated proportion is 0.5 (50%), a typical assumption for unknown population proportions, and the confidence level is 95%. Cochran's algorithm suggests 92 research participants based on these factors (Muftawu & Aldogan, 2020).

Stratified random sampling improves sample robustness: First, qualified doctors are categorized by department or specialty. Each stratum of physicians is randomly selected for the study. Each stratum has a proportional number of physicians, thus larger departments with more physicians are represented and smaller departments contribute accordingly. By offering every physician in each department an equal chance, stratified random sampling lowers selection bias. By using this method and Cochran's formula to generate a sample size, the study's results will be statistically significant and representative of Prince Abdulaziz bin Musaed Hospital's physicians (Mathew et al., 2021). The sampling process balances comprehensiveness and efficiency to produce a representative and statistically valid sample of hospital physicians' patient safety knowledge and awareness (Lim, 2019).

2.2.1. Inclusion Criteria

- Physicians with more than one year of work experience at Prince Abdulaziz bin Musaed Hospital.
- Physicians from different specialties, ensuring a wide range of perspectives related to patient safety.

2.2.2. Exclusion Criteria

- Physicians with less than one year of experience at the hospital.
- Physicians who have previously participated in similar studies related to patient safety.

2.2.3. Ethical Considerations

To protect participants' rights, well-being, and safety, this study follows the Helsinki Declaration. The Northern Border Health Cluster IRB authorizes data collecting before it begins. This ethical approval ensures the project follows human participant research principles and ethical methods (Lawati et al., 2019). The investigation ethics need informed consent. The study's goals, protocols, and physician rights are stated (Lavin et al., 2015). They know the study's goal, are voluntarily involved, and can resign at any time without punishment. Recruitment uses voluntary involvement without rewards or coercion (Lawati et al., 2017). No personally identifiable information is collected for the study to preserve participant privacy. Anonymous responses are recorded without personal information. Data is securely stored and only the study staff can access it, ensuring participant privacy. The study's voluntary participation, participant anonymity, and ethical approval from the proper authorities meet international and institutional human subject research norms.

2.3. Measures Included in the Research

This study uses the Agency for Healthcare Research and Quality's Hospital Survey on Patient Safety Culture. Healthcare workers' views on patient safety are reliably and comprehensively assessed using the HSOPS, which has been widely deployed and validated (Kim & Choi, 2024). Each of the six questionnaire sections evaluates patient safety culture. The first component, Unit/Work Area, concerns physician unit or department teamwork, staffing, and safety. Staff collaboration and resources, such as staff, to ensure patient safety are assessed in this section (Kamran et al., 2018).

For study aims, the questionnaire was adapted from the validated AHRQ Hospital Survey on Patient Safety Culture (Version 2.0). This version is ideal for hospital patient safety culture assessments because it has been widely tested internationally for reliability and validity (Gampetro et al., 2019). The questionnaire employs a Likert scale to rate "Strongly Disagree" to "Strongly Agree" or "Never" to "Always." Quantitative physician perceptions are easy to gather with this technique (Fouzan, 2022). The original HSOPS is valid and reliable

in healthcare settings worldwide, supporting its use in this study. The questionnaire's validity examines cooperation, communication, and patient safety culture. Reliability is the questionnaire's long-term consistency (Elmorsy et al., 2022).

2.4 Data Collection

The trial begins with cautious informed consent from all providers. This stage assures participants understand the study's objectives, methods, and rights. Each doctor knows the study's purpose is to assess hospital patient safety awareness and knowledge. The study's goals, questions, and questionnaire length are disclosed to participants. Note that volunteers can exit the study at any time without penalty. To avoid compulsion or influence on physicians, this is emphasized. Prior to survey distribution, consent is requested to guarantee participant willingness and knowledge of the research. It takes two months to collect data from June to July 2024. Healthcare is demanding; thus, flexibility is needed to boost involvement. A 2 months for data collection allows clinicians to complete the questionnaire at their leisure, reducing incomplete or rushed responses. On average, surveys take 10-15 minutes (Alwabel et al., 2015).

Data is collected digitally to maximize participation and convenience. Email is the major way doctors receive survey links. Flexible and accessible, this strategy is ideal for busy clinicians. Digital data management is more efficient because responses are automatically gathered and stored in a secure database for analysis after collection (Alshammari et al., 2015). During data collection, unfinished surveys are reminded by email. These reminders are spaced out to avoid overwhelming participants and gently promote questionnaire completion. Participants can rapidly resolve survey issues by asking the research team. Clear informed consent, a well-planned data collection schedule, and a flexible, multi-modal distribution strategy provide ethical and efficient data collection. By simplifying participation, the project hopes to boost response rates and obtain high-quality data on Prince Abdulaziz bin Musaed Hospital physicians' patient safety knowledge.

2.5. Data Analysis

After data collecting, responses are sifted. This first stage cleans the dataset for analysis. Incomplete or inconsistent responses are eliminated from analysis. Participants' data is discarded if they left a large amount of the survey unanswered or if their responses exhibit evident patterns of inconsistency, such as contradicting answers. This step is necessary to maintain data integrity and ensure that analysis results are correct and representative of the study population (AlOlayan et al., 2020). Clean data is coded and ready for statistical analysis. To aid quantitative analysis, Likert scale responses are given numbers (Almandil, 2016). IBM SPSS Statistics (Version 23.0), a strong and widely used quantitative data management and analysis software, analyzes the cleaned and coded data. SPSS's descriptive and inferential statistics techniques are ideal for this study's survey data. SPSS helps the research team efficiently manage data and analyze it accurately and thoroughly (Ali, Moinuddin, et al., 2018).

Analysis begins with descriptive statistics. These statistics summarize participants' essential traits and responses. Means, standard deviations, frequencies, and percentages are used to define participants' demographic data, such as experience, specialty, and hospital role. Descriptive statistics summarize questionnaire responses to show how physicians regard patient safety at work. These summary metrics assist discover data trends and patterns, revealing physicians' patient safety awareness and knowledge (Ali, Hassan, et al., 2018; Alquwez et al., 2018). These rigorous statistical processes ensure that the study's results are valid and reliable, providing important insights into Prince Abdulaziz bin Musaed Hospital physicians' patient safety culture.

3. Results

3.1. Background Questions

Table 1: How long have you worked in this hospital?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 to 5 years	56	60.9	60.9	60.9
	11 or more years	20	21.7	21.7	82.6
	6 to 10 years	9	9.8	9.8	92.4
	Less than 1 year	7	7.6	7.6	100.0
	Total	92	100.0	100.0	

Table 1 shows attendees by length of service at Prince Abdulaziz bin Musaed Hospital. Most responders (60.9%) have worked at the hospital for 1 to 5 years, showing a large share of the staff has modest experience. Physicians with over 11 years of experience make up 21.7% of the sample, indicating a large number of long-term staff who may grasp the hospital's safety culture and policies. 9.8% of respondents had 6–10 years of experience, while 7.6% have been with the institution less than a year. Having a balanced mix of new, mid-level, and more experienced physicians provides distinct patient safety awareness viewpoints.

Table 2: In this hospital, how long have you worked in your current unit/work area?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 to 5 years	58	63.0	63.0	63.0
	11 or more years	17	18.5	18.5	81.5
	6 to 10 years	9	9.8	9.8	91.3
	Less than 1 year	8	8.7	8.7	100.0
	Total	92	100.0	100.0	

Table 2 shows the distribution of participants by hospital unit or work area tenure. The majority (63.0%) have worked in their present unit for 1 to 5 years, demonstrating they are familiar with its operations and patient safety standards. Only 18.5% have been in their unit for 11 or more years, which may contribute to safety culture consistency and institutional expertise. 9.8% of the sample had 6 to 10 years of experience in their current unit, whereas 8.7% have less than one year, representing newcomers who may be learning to unit protocols. This balance of experienced and new staff provides insights into the hospital's patient safety dynamics.

Table 3: Typically, how many hours per week do you work in this hospital?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	30 to 40 hours per week	23	25.0	25.0	25.0
	More than 40 hours per week	69	75.0	75.0	100.0
	Total	92	100.0	100.0	

Table 3 shows the distribution of participants by average weekly work hours at Prince Abdulaziz bin Musaed Hospital. Most respondents (75.0%) work more than 40 hours per week, indicating a heavy burden for hospital physicians. Only 25.0% work 30 to 40 hours each week, a smaller proportion with a more typical schedule. This research shows that hospital healthcare responsibilities are demanding, which may affect stress, burnout,

and patient safety. These findings stress the importance of workload in patient safety awareness and behavior assessment and improvement.

Table 4: In your staff position, do you typically have direct interaction or contact with patients?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	NO, I typically do NOT have direct interaction or contact with patients	2	2.2	2.2	2.2
	YES, I typically have direct interaction or contact with patients	90	97.8	97.8	100.0
	Total	92	100.0	100.0	

Table 4 shows the percentage of workers who work directly with patients. Most responders (97.8%) reported direct patient contact, indicating that they are actively involved in patient care and likely familiar with safety protocols. Only 2.2% do not interface with patients, indicating a low representation of non-clinical roles. This shows that the study is relevant to understanding patient safety awareness among physicians who directly give treatment and whose actions and knowledge greatly impact patient outcomes.

3.2. Staff Position

Table 5: Staff Position

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Resident, Intern	44	47.8	47.8	47.8
	Specialist, Consultant	48	52.2	52.2	100.0
	Total	92	100.0	100.0	

Table 5 shows Prince Abdulaziz bin Musaed Hospital personnel participation. It's roughly split between residents or interns (47.8%) and specialists or consultants (52.2%). This balance provides a variety of perspectives, from early-career physicians who are still learning patient safety protocols to senior professionals who shape and implement safety practices. A comprehensive assessment of patient safety awareness across hospital personnel levels of expertise and responsibility is provided by this blend.

3.3. Unit/ Work Area

Table 6: Primary Unit or Work area in the Hospital

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Administration, Management	1	1.1	1.1	1.1
	Cardiology	3	3.3	3.3	4.3
	Combined Medical/Surgical Unit	4	4.3	4.3	8.7
	Emergency Department, Observation, Short Stay	17	18.5	18.5	27.2
	ICU (all adult types)	22	23.9	23.9	51.1
	Many different hospital units, No specific unit	8	8.7	8.7	59.8

	Medical Unit (Non-Surgical)	16	17.4	17.4	77.2
	Oncology, Hematology	3	3.3	3.3	80.4
	Others	6	6.5	6.5	87.0
	Pulmonology	3	3.3	3.3	90.2
	Radiology, Imaging	2	2.2	2.2	92.4
	Surgical Unit	7	7.6	7.6	100.0
	Total	92	100.0	100.0	

Table 6 shows hospital participation by principal unit or occupational area. The largest group of respondents (23.9%) works in the ICU, where patient safety protocols are crucial. The second-largest group (18.5%) is the Emergency Department, Observation, and Short Stay facilities, highlighting the involvement of high-pressure, time-sensitive staff. In addition, the Medical Unit (Non-Surgical) at 17.4% and the Combined Medical/Surgical Unit at 4.3% reflect a balance of medical specializations. Oncology and Hematology (3.3%), Radiology and Imaging (2.2%), and Administration and Management (1.1%) have smaller representations, whereas 8.7% work throughout multiple hospital areas without a categorization. This ensures a thorough grasp of patient safety practices throughout hospital departments, especially those with high patient acuity and complexity.

Table 7: In this unit, we work together as an effective team

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1	1.1	1.1	1.1
	Agree	36	39.1	39.1	40.2
	Disagree	3	3.3	3.3	43.5
	Does Not Apply or Don’t Know	2	2.2	2.2	45.7
	Neither Agree nor Disagree	7	7.6	7.6	53.3
	Strongly Agree	40	43.5	43.5	96.7
	Strongly Disagree	3	3.3	3.3	100.0
	Total	92	100.0	100.0	

Hospital unit teamwork effectiveness is assessed in Table 7. 43.5% strongly agree and 39.1% agree that their unit works well as a team, demonstrating a strong culture of collaboration in most departments. Some 7.6% were neutral, 3.3% disagreed, and 3.3% strongly disagreed, indicating opportunities for collaborative improvement. Only 2.2% chose "Does Not Apply or Don't Know," indicating little participant doubt. These findings highlight the hospital's overall teamwork performance while revealing a limited sample of units where changes may improve team relationships and patient safety.

Table 8: In this unit, we have enough staff to handle the workload

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		2	2.2	2.2	2.2
	Agree	22	23.9	23.9	26.1
	Disagree	31	33.7	33.7	59.8
	Neither Agree nor Disagree	3	3.3	3.3	63.0
	Strongly Agree	4	4.3	4.3	67.4
	Strongly Disagree	30	32.6	32.6	100.0

	Total	92	100.0	100.0	

Table 8 shows hospital staffing perceptions. The findings are concerning, as 33.7% and 32.6% strongly disagreed that their unit has adequate people to handle the task. With 66.3% of participants responding, a personnel shortfall could affect patient safety and care quality. However, 4.3% strongly agreed and 23.9% agreed, indicating that just a minority of units feel appropriately staffed. Only 3.3% were neutral, and 2.2% indicated "Does Not Apply." These findings emphasize the importance of staffing and the necessity for hospital management to address workload distribution and resource allocation to improve patient safety and prevent healthcare worker burnout.

Table 9: Staff in this unit work longer hours than is best for patient care

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1	1.1	1.1	1.1
	Agree	34	37.0	37.0	38.0
	Disagree	19	20.7	20.7	58.7
	Neither Agree nor Disagree	11	12.0	12.0	70.7
	Strongly Agree	21	22.8	22.8	93.5
	Strongly Disagree	6	6.5	6.5	100.0
	Total	92	100.0	100.0	

Table 9 examines if hospital staff work too many hours for patient care. 59.8% of respondents (37.0% agree and 22.8% strongly agree) think long hours are a problem. This implies that excessive hours may lower care quality and increase errors. 20.7% disagreed and 6.5% strongly disagreed, indicating that some employees find their hours manageable. Only 12.0% were neutral, and 1.1% indicated "Does Not Apply." These findings suggest that sustainable staff working hours that prioritize staff well-being and patient safety are needed.

Table 10: This unit regularly reviews work processes to determine if changes are needed to improve patient safety

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		2	2.2	2.2	2.2
	Agree	38	41.3	41.3	43.5
	Disagree	4	4.3	4.3	47.8
	Neither Agree nor Disagree	10	10.9	10.9	58.7
	Strongly Agree	28	30.4	30.4	89.1
	Strongly Disagree	10	10.9	10.9	100.0
	Total	92	100.0	100.0	

Table 10 shows whether units regularly assess work processes for patient safety improvements. With 41.3% agreeing and 30.4% strongly agreeing, over 70% of respondents feel their units do regular process evaluations. However, 10.9% strongly disagreed and 4.3% disagreed, demonstrating that some facilities may not actively evaluate and improve patient safety protocols. Another 10.9% were neutral, and 2.2% "Does Not Apply." These findings demonstrate the dedication to patient safety in many units and the necessity for consistent and widespread process assessments across all departments to promote a culture of safety.

Table 11: This unit relies too much on temporary, float, or PRN staff

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	26	28.3	28.3	28.3
	Disagree	18	19.6	19.6	47.8
	Does Not Apply or Don’t Know	14	15.2	15.2	63.0
	Neither Agree nor Disagree	10	10.9	10.9	73.9
	Strongly Agree	5	5.4	5.4	79.3
	Strongly Disagree	19	20.7	20.7	100.0
	Total	92	100.0	100.0	

Table 11 assesses if units overuse temporary, float, or PRN staff. One-third of respondents (28.3% agree and 5.4% strongly agree) think temporary personnel is overused, which could affect patient care. 19.6% disagreed and 20.7% strongly disagreed, indicating that many staff members do not think this is a big deal in their departments. 15.2% said "Does Not Apply or Don't Know," and 10.9% were neutral, indicating staffing practice ignorance. Some units may depend on temporary staff, but the perception differs across the hospital, underscoring the necessity for balanced staffing methods to ensure patient safety continuity and quality.

Table 12: In this unit, staff feel like their mistakes are held against them

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1	1.1	1.1	1.1
	Agree	26	28.3	28.3	29.3
	Disagree	21	22.8	22.8	52.2
	Does Not Apply or Don’t Know	3	3.3	3.3	55.4
	Neither Agree nor Disagree	22	23.9	23.9	79.3
	Strongly Agree	4	4.3	4.3	83.7
	Strongly Disagree	15	16.3	16.3	100.0
	Total	92	100.0	100.0	

Table 12 shows staff opinions on whether their unit penalizes mistakes. The fact that 28.3% and 4.3% strongly believe that mistakes are penalized may hinder a just culture of learning and progress. However, 22.8% disagreed and 16.3% strongly disagreed, demonstrating that many employees believe their workplace is more tolerant and supportive of constructive error correction. 23.9% were neutral, and 3.3% chose "Does Not Apply or Don't Know," indicating uncertainty or mixed experiences. These findings emphasize the need to promote open discussions about mistakes and a non-punitive approach to errors to improve patient safety across all departments.

Table 13: When an event is reported in this unit, it feels like the person is being written up, not the problem

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	24	26.1	26.1	26.1
	Disagree	27	29.3	29.3	55.4

	Does Not Apply or Don’t Know	7	7.6	7.6	63.0
	Neither Agree nor Disagree	16	17.4	17.4	80.4
	Strongly Agree	5	5.4	5.4	85.9
	Strongly Disagree	13	14.1	14.1	100.0
	Total	92	100.0	100.0	

Table 13 shows staff perceptions of whether reporting an event feels like criticizing the individual rather than addressing the problem. Event reporting may discourage personnel from reporting problems since 26.1% agree and 5.4% strongly agree that it assigns responsibility to people. However, 29.3% disagreed and 14.1% strongly disagreed, demonstrating that many staff members view reporting as a positive way to resolve difficulties. 17.4% were neutral, and 7.6% chose "Does Not Apply or Don't Know," showing staff ambiguity. These findings emphasise the need to establish a culture where event reporting is used for system improvement rather than personal blame, promoting openness and collaboration in patient safety.

Table 14: During busy times, staff in this unit help each other

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	38	41.3	41.3	41.3
	Disagree	1	1.1	1.1	42.4
	Neither Agree nor Disagree	8	8.7	8.7	51.1
	Strongly Agree	45	48.9	48.9	100.0
	Total	92	100.0	100.0	

Table 14 assesses staff views of mutual support at unit peak times. With 48.9% strongly agreeing and 41.3% agreeing, most respondents thought staff helped each other during peak workloads. This suggests that most units value teamwork and collaboration, which is essential for patient safety under duress. Only 8.7% were neutral and 1.1% disagreed, indicating low unhappiness with high-stress teamwork. These findings emphasize the need of collaborative methods for safe and effective patient care during busy times.

Table 15: There is a problem with disrespectful behavior by those working in this unit

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1	1.1	1.1	1.1
	Agree	23	25.0	25.0	26.1
	Disagree	31	33.7	33.7	59.8
	Does Not Apply or Don’t Know	3	3.3	3.3	63.0
	Neither Agree nor Disagree	7	7.6	7.6	70.7
	Strongly Agree	6	6.5	6.5	77.2
	Strongly Disagree	21	22.8	22.8	100.0
	Total	92	100.0	100.0	

Table 15 shows unit staff views on disrespectful behavior. While 25.0% agreed and 6.5% strongly agreed that disrespectful behavior is a problem, 33.7% or 22.8% disagreed, indicating that most respondents do not see this as a major issue. Only 7.6% were impartial, and 3.3% chose "Does Not Apply or Don't Know," indicating

uncertainty or mixed experiences. These findings show that disrespectful behavior is not a general problem for the majority of staff, but it is for a minority, emphasizing the necessity to maintain a courteous and professional work atmosphere to enhance teamwork and patient safety.

Table 16: When staff make errors, this unit focuses on learning rather than blaming individuals

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	31	33.7	33.7	33.7
	Disagree	9	9.8	9.8	43.5
	Neither Agree nor Disagree	10	10.9	10.9	54.3
	Strongly Agree	34	37.0	37.0	91.3
	Strongly Disagree	8	8.7	8.7	100.0
	Total	92	100.0	100.0	

Table 16 examines whether units learn from mistakes or blame people. Positive experiences were reported by 37.0% strongly agreeing and 33.7% agreeing, indicating that many units prioritize constructive error correction. However, 9.8% disagreed and 8.7% strongly disagreed, demonstrating that some personnel see a blaming culture in some areas. Only 10.9% were neutral, showing mixed or ambiguous experiences. These findings show that most units have conducive learning environments, but they also underline the need to develop a hospital-wide culture of learning and improvement.

Table 17: In this unit, changes to improve patient safety are evaluated to see how well they worked

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	58	63.0	63.0	63.0
	Disagree	3	3.3	3.3	66.3
	Neither Agree nor Disagree	6	6.5	6.5	72.8
	Strongly Agree	20	21.7	21.7	94.6
	Strongly Disagree	5	5.4	5.4	100.0
	Total	92	100.0	100.0	

Table 17 evaluates hospital unit patient safety changes for efficacy. 63.0% and 21.7% strongly agreed that such reviews occur routinely, demonstrating a proactive approach to continuous improvement in most units. Dissatisfaction was 3.3% and 5.4% strongly disagree, while 6.5% were neutral, indicating uncertainty or mixed experiences. These findings show that most units are committed to analyzing safety improvements, but consistency and encouragement of evaluation techniques across departments are needed.

Table 18: In this unit, there is a lack of support for staff involved in patient safety errors

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	23	25.0	25.0	25.0
	Disagree	21	22.8	22.8	47.8
	Neither Agree nor Disagree	26	28.3	28.3	76.1
	Strongly Agree	5	5.4	5.4	81.5
	Strongly Disagree	17	18.5	18.5	100.0

	Total	92	100.0	100.0	

Whether unit workers implicated in patient safety errors lack proper support is examined in Table 18. 25.0% agreed and 5.4% strongly agreed that help is insufficient, whereas 22.8% disagreed and 18.5% strongly disagreed, demonstrating that many personnel feel supported. Notably, 28.3% were undecided, indicating uncertainty or mixed experiences. These data indicate that support mechanisms vary between units, emphasizing the necessity for uniform and structured support systems to help staff resolve patient safety issues.

Table 19: This unit lets the same patient safety problems keep happening

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1	1.1	1.1	1.1
	Agree	12	13.0	13.0	14.1
	Disagree	45	48.9	48.9	63.0
	Neither Agree nor Disagree	12	13.0	13.0	76.1
	Strongly Agree	4	4.3	4.3	80.4
	Strongly Disagree	18	19.6	19.6	100.0
	Total	92	100.0	100.0	

Table 19 shows if units repeat patient safety issues. 48.9% disagreed, and 19.6% strongly disagreed, showing that most staff believe their units adequately manage safety problems to prevent recurrence. However, 13.0% and 4.3% strongly agreed, showing that some units may have persistent safety risks. 13.0% were neutral, indicating uncertainty or diversity in experiences. These findings emphasize the need for ongoing problem-solving and follow-up evaluations to permanently resolve patient safety issues across all units.

4.4. Supervisor, Manager, or Clinical Leader

Table 20: My supervisor, manager, or clinical leader seriously considers staff suggestions for improving patient safety

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1	1.1	1.1	1.1
	Agree	41	44.6	44.6	45.7
	Disagree	5	5.4	5.4	51.1
	Neither Agree nor Disagree	3	3.3	3.3	54.3
	Strongly Agree	42	45.7	45.7	100.0
	Total	92	100.0	100.0	

Table 20 assesses whether supervisors, managers, and clinical leaders seriously consider staff patient safety proposals. 45.7% strongly agreed and 44.6% agreed, demonstrating that most unit leaders are open to staff patient safety feedback. Only 5.4% disagreed, and 3.3% were neutral, indicating little discontent. 1.1% said "Does Not Apply." These findings show that leadership collaboration and response are essential for continuous improvement and patient safety.

Table 21: My supervisor, manager, or clinical leader wants us to work faster during busy times, even if it means taking shortcuts

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Agree	29	31.5	31.5	31.5
	Disagree	33	35.9	35.9	67.4
	Neither Agree nor Disagree	5	5.4	5.4	72.8
	Strongly Agree	10	10.9	10.9	83.7
	Strongly Disagree	15	16.3	16.3	100.0
	Total	92	100.0	100.0	

Table 21 explores whether supervisors, managers, or clinical leaders encourage personnel to work quicker during busy times, even by cutting corners. 31.5% agreed and 10.9% strongly agreed, demonstrating that many personnel feel forced to put speed over safety. However, 35.9% and 16.3% strongly disagreed, indicating that many personnel do not feel such pressure. Five percent (5.4%) were undecided, showing experience variability. Even amid peak workloads, leaders must prioritize patient safety over speed, according to these findings.

Table 22: My supervisor, manager, or clinical leader takes action to address patient safety concerns that are brought to their attention

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	51	55.4	55.4	55.4
	Does Not Apply or Don’t Know	1	1.1	1.1	56.5
	Neither Agree nor Disagree	15	16.3	16.3	72.8
	Strongly Agree	25	27.2	27.2	100.0
	Total	92	100.0	100.0	

Table 22 assesses whether supervisors, managers, or clinical leaders address patient safety issues. 55.4% agree and 27.2% strongly agree that leadership aggressively addresses such problems, demonstrating a proactive commitment to patient safety. Although 16.3% were ambivalent, indicating uncertainty or mixed experiences, only 1.1% chose "Does Not Apply or Don't Know," showing that most respondents had relevant experiences to offer. These findings stress the importance of leadership responsiveness in promoting safety and motivating personnel to speak up.

4.5. Communication

Table 23: We are informed about errors that happen in this unit

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1	1.1	1.1	1.1
	Always	22	23.9	23.9	25.0
	Most of the time	23	25.0	25.0	50.0
	Rarely	17	18.5	18.5	68.5
	Sometimes	29	31.5	31.5	100.0
	Total	92	100.0	100.0	

Table 23 evaluates whether unit staff are informed of errors. After 23.9% said they are "always" informed, 25.0% said they are "most of the time," 31.5% said "sometimes," and 18.5% said "rarely." These data indicate that error communication strategies vary among units, with many personnel sharing contradictory information. Promoting a learning culture and enhancing hospital patient safety requires regular and honest error communication.

Table 24: When errors happen in this unit, we discuss ways to prevent them from happening again					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Always	42	45.7	45.7	45.7
	Most of the time	22	23.9	23.9	69.6
	Never	4	4.3	4.3	73.9
	Rarely	7	7.6	7.6	81.5
	Some times	17	18.5	18.5	100.0
	Total	92	100.0	100.0	

Table 24 measures how often personnel address unit error prevention. Many units take a proactive approach to error prevention, as 45.7% "always" and 23.9% "most of the time" reported regular conversations. 18.5% said these conversations happen "sometimes," 7.6% said "rarely," and 4.3% answered "never," showing some units may not have consistent error-resolution methods. These findings emphasize the need to promote a culture of mistake prevention to improve patient safety across all departments.

Table 25: In this unit, we are informed about changes that are made based on event reports					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Always	33	35.9	35.9	35.9
	Most of the time	23	25.0	25.0	60.9
	Never	5	5.4	5.4	66.3
	Rarely	8	8.7	8.7	75.0
	Sometimes	23	25.0	25.0	100.0
	Total	92	100.0	100.0	

Table 25 evaluates whether unit staff are informed of event-based changes. Many units communicate well, as 35.9% "always" and 25.0% "most of the time" reported being advised on such changes. However, 25.0% were notified just "sometimes," while smaller groups indicated "rarely" (8.7%) or "never" (5.4%), demonstrating variation in event-driven change communication. These findings emphasize the necessity for consistent and transparent communication to inform staff of patient safety improvements and promote accountability and continual learning.

Table 26: In this unit, staff speak up if they see something that may negatively affect patient care					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Always	27	29.3	29.3	29.3
	Most of the time	30	32.6	32.6	62.0
	Never	2	2.2	2.2	64.1
	Rarely	12	13.0	13.0	77.2
	Sometimes	21	22.8	22.8	100.0
	Total	92	100.0	100.0	

Table 26 examines whether personnel report patient care issues. 29.3% "always" and 32.6% "most of the time" said they feel empowered to raise problems, showing an open atmosphere in many units. However, 22.8% stated they speak out "sometimes," and 13.0% said "rarely," showing some personnel may be reluctant to

voice difficulties. 2.2% said they "never" speak up, suggesting communication issues in some divisions. To maintain high levels of patient care, a safe and supportive workplace where all personnel feel confident in expressing problems is crucial.

Table 27: When staff in this unit see someone with more authority doing something unsafe for patients, they speak up

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1	1.1	1.1	1.1
	Always	22	23.9	23.9	25.0
	Most of the time	32	34.8	34.8	59.8
	Never	2	2.2	2.2	62.0
	Rarely	1	1.1	1.1	63.0
	Some times	34	37.0	37.0	100.0
	Total	92	100.0	100.0	

Table 27 shows whether personnel report dangerous patient procedures by superiors. 23.9% "always" and 34.8% "most of the time" of respondents said they would address such problems, demonstrating accountability in many units. However, 37.0% said they speak up "sometimes," and 1.1% and 2.2% said "rarely" or "never," reflecting hesitation or perceived impediments to criticizing authority. These findings emphasize the need to foster a culture of safety and openness where all staff feel empowered to report harmful activities, regardless of rank.

Table 28: When staff in this unit speak up, those with more authority are open to their patient safety concerns

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Always	36	39.1	39.1	39.1
	Does Not Apply or Don’t Know	2	2.2	2.2	41.3
	Most of the time	21	22.8	22.8	64.1
	Rarely	8	8.7	8.7	72.8
	Sometimes	25	27.2	27.2	100.0
	Total	92	100.0	100.0	

Table 28 assesses whether staff think leaders listen to patient safety issues. Many leaders are open to safety feedback, as 39.1% "always" and 22.8% "most of the time" had positive encounters. However, 27.2% said this openness happens "sometimes," 8.7% said "rarely," and 2.2% said "Does Not Apply or Don’t Know," suggesting leadership response varies. These findings show that authority people must be transparent to encourage personnel to communicate concerns confidently, improving patient safety.

Table 29: In this unit, staff are afraid to ask questions when something does not seem right

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1	1.1	1.1	1.1
	Always	4	4.3	4.3	5.4
	Most of the time	13	14.1	14.1	19.6

	Never	33	35.9	35.9	55.4
	Rarely	26	28.3	28.3	83.7
	Sometimes	15	16.3	16.3	100.0
	Total	92	100.0	100.0	

If something seems incorrect in their unit, personnel may be scared to ask questions (Table 29). 35.9% said "never" and 28.3% said "rarely," indicating that most personnel feel comfortable reporting problems. 16.3% stated they were afraid "sometimes," 14.1% "most of the time," and 4.3% "always." These results indicate that while many units have an open and supportive culture, some still fear questioning authority, underlining the need to create a more inclusive and non-intimidating atmosphere to improve patient safety.

4.6. Reporting Patient Safety Events

Table 30: When a mistake is caught and corrected before reaching the patient, how often is this reported?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1	1.1	1.1	1.1
	Always	25	27.2	27.2	28.3
	Does Not Apply or Don’t Know	8	8.7	8.7	37.0
	Most of the time	20	21.7	21.7	58.7
	Never	6	6.5	6.5	65.2
	Rarely	2	2.2	2.2	67.4
	Sometimes	30	32.6	32.6	100.0
	Total	92	100.0	100.0	

Table 30 shows how often errors are identified and rectified before reaching patients. Positive reporting procedures were reported by 27.2% of respondents "always" and 21.7% "most of the time." 32.6% said "sometimes," suggesting consistency needs improving. 8.7% chose "Does Not Apply or Don't Know." 2.2% and 6.5% reported these faults "rarely" or "never." These findings show that improved reporting methods and a culture of learning from near-misses are needed to improve patient safety.

Table 31: When a mistake reaches the patient and could have harmed the patient, but did not, how often is this reported?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Always	22	23.9	23.9	23.9
	Does Not Apply or Don’t Know	9	9.8	9.8	33.7
	Most of the time	21	22.8	22.8	56.5
	Never	11	12.0	12.0	68.5
	Rarely	7	7.6	7.6	76.1
	Sometimes	22	23.9	23.9	100.0
	Total	92	100.0	100.0	

Table 31 shows how often mistakes reached patients without harming them. The reporting culture is mixed, with 23.9% saying such events are "always" reported and 22.8% saying "most of the time." Only 23.9% reported these blunders "sometimes," whereas 7.6% and 12.0% said "rarely" or "never." Additionally, 9.8% chose "Does Not Apply or Don't Know." These data reveal inconsistency in reporting near-miss events that reach patients, emphasizing the need for consistent reporting to learn from such accidents and improve patient safety.

Table 32: In the past 12 months, how many patient safety events have you reported?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 to 2	29	31.5	31.5	31.5
	11 or more	2	2.2	2.2	33.7
	3 to 5	19	20.7	20.7	54.3
	6 to 10	8	8.7	8.7	63.0
	None	34	37.0	37.0	100.0
	Total	92	100.0	100.0	

Table 32 shows staff-reported patient safety occurrences during the past year. The data shows that 37.0% of respondents reported no patient safety events, suggesting underreporting or obstacles. Some reporting was done: 31.5% reported 1 to 2 occurrences, and 20.7% reported 3 to 5. A smaller group reported 6–10 (8.7%) or 11+ (2.2%) incidents. These data indicate diversity in reporting behaviors and advocate encouraging consistent reporting procedures to document all incidents, regardless of frequency, for organizational learning and patient safety improvement.

4.6. Patient Safety Rating

Table 33: How would you rate your unit/work area on patient safety?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Excellent	24	26.1	26.1	26.1
	Fair	11	12.0	12.0	38.0
	Good	31	33.7	33.7	71.7
	Poor	4	4.3	4.3	76.1
	Very good	22	23.9	23.9	100.0
	Total	92	100.0	100.0	

Table 33 measures staff opinions of patient safety in their unit. A large portion rated their unit positively, with 26.1% selecting "excellent," 23.9% "very good," and 33.7% "good." However, 12.0% rated their unit "fair," and 4.3% "poor," showing room for improvement. These findings imply that while many staff members are confident in their unit's patient safety measures, efforts should focus on addressing those who are less confident.

4.8. Hospital

Table 34: The actions of hospital management show that patient safety is a top priority

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	28	30.4	30.4	30.4
	Does Not Apply or Don’t Know	4	4.3	4.3	34.8

	Neither Agree nor Disagree	10	10.9	10.9	45.7
	Strongly Agree	45	48.9	48.9	94.6
	Strongly Disagree	5	5.4	5.4	100.0
	Total	92	100.0	100.0	

Table 34 asks personnel if hospital management's actions show patient safety is essential. Most personnel, 48.9% "strongly agreeing" and 30.4% "agreeing," believe management is devoted to patient safety. However, 10.9% were neutral and 5.4% "strongly disagreed," indicating perception variation. Only 4.3% chose "Does Not Apply or Don't Know." These findings indicate that management's commitment to patient safety is generally favorable, but they imply that actions and communication might be better aligned across all units.

Table 35: Hospital management provides adequate resources to improve patient safety

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	32	34.8	34.8	34.8
	Disagree	8	8.7	8.7	43.5
	Neither Agree nor Disagree	9	9.8	9.8	53.3
	Strongly Agree	37	40.2	40.2	93.5
	Strongly Disagree	6	6.5	6.5	100.0
	Total	92	100.0	100.0	

Table 35 assesses hospital management's patient safety resources. There were 40.2% "strongly agreeing" and 34.8% "agreeing" that safety improvements receive enough funding. However, 9.8% were neutral, 8.7% "disagreed," and 6.5% "strongly disagreed," indicating that some personnel felt resource distribution is inadequate. These data imply that while most staff consider resource support as sufficient, addressing gaps can improve patient safety.

Table 36: Hospital management seems interested in patient safety only after an adverse event happens

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	15	16.3	16.3	16.3
	Disagree	35	38.0	38.0	54.3
	Neither Agree nor Disagree	13	14.1	14.1	68.5
	Strongly Agree	14	15.2	15.2	83.7
	Strongly Disagree	15	16.3	16.3	100.0
	Total	92	100.0	100.0	

Table 36 evaluates whether hospital management only cares about patient safety after an unfavorable event. There are 38.0% "disagreeing" and 16.3% "strongly disagreeing," showing that many personnel do not see this as an issue. Although 16.3% "agreed" and 15.2% "strongly agreed," some staff believe management's safety focus is reactive rather than proactive. Neutral 14.1% had mixed or unsure opinions. These data show that hospital administration should prioritize patient safety over adverse event responses.

Table 37: When transferring patients from one unit to another, important information is often left out

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	21	22.8	22.8	22.8
	Disagree	19	20.7	20.7	43.5
	Does Not Apply or Don’t Know	2	2.2	2.2	45.7
	Neither Agree nor Disagree	16	17.4	17.4	63.0
	Strongly Agree	15	16.3	16.3	79.3
	Strongly Disagree	19	20.7	20.7	100.0
	Total	92	100.0	100.0	

Table 37 evaluates if crucial patient transfer information is typically left out. 22.8% "agreed" and 16.3% "strongly agreed" that this issue happens, whereas 20.7% "disagreed" and 20.7% "strongly disagreed," indicating that many personnel do not regard this as a frequent concern. 17.4% were neutral, while 2.2% chose "Does Not Apply or Don't Know," indicating confusion. These data reveal that while many personnel believe patient information is adequately passed, a significant portion perceives communication gaps, emphasizing the necessity for standardized handover processes to maintain continuity of care and patient safety.

Table 38: During shift changes, important patient care information is often left out

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	18	19.6	19.6	19.6
	Disagree	20	21.7	21.7	41.3
	Does Not Apply or Don’t Know	2	2.2	2.2	43.5
	Neither Agree nor Disagree	18	19.6	19.6	63.0
	Strongly Agree	15	16.3	16.3	79.3
	Strongly Disagree	19	20.7	20.7	100.0
	Total	92	100.0	100.0	

Table 38 examines whether shift changes leave out vital patient care information. 19.6% "agreed" and 16.3% "strongly agreed" that information is occasionally omitted, whereas 21.7% "disagreed" and 20.7% "strongly disagreed," demonstrating that many personnel do not see this as a frequent issue. 19.6% were neutral, and 2.2% chose "Does Not Apply or Don't Know," indicating confusion. These findings emphasise the significance of good shift handover communication to avoid information gaps and promote continuity of care.

Table 39: During shift changes, there is adequate time to exchange all key patient care information

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	40	43.5	43.5	43.5
	Disagree	2	2.2	2.2	45.7
	Does Not Apply or Don’t Know	2	2.2	2.2	47.8

	Neither Agree nor Disagree	15	16.3	16.3	64.1
	Strongly Agree	32	34.8	34.8	98.9
	Strongly Disagree	1	1.1	1.1	100.0
	Total	92	100.0	100.0	

Table 39 evaluates whether there is adequate time to exchange all key patient care information during shift changes. The majority of respondents expressed positive views, with 43.5% "agreeing" and 34.8% "strongly agreeing," indicating that most staff feel sufficient time is allocated for handovers. A smaller proportion were neutral (16.3%), while only 2.2% "disagreed" and 1.1% "strongly disagreed," suggesting minimal dissatisfaction. Additionally, 2.2% selected "Does Not Apply or Don't Know." These findings suggest that most staff perceive shift changes as adequately structured to facilitate effective communication, though ongoing efforts can ensure consistent practices across all units.

4. Discussion

This study found strengths and flaws in Prince Abdulaziz bin Musaed Hospital's patient safety culture. In spite of better teamwork and leadership support, workload, staff, reporting systems, and communication continue to jeopardize safety culture and patient outcomes . Comparing these data to other research can improve hospital patient safety recommendations awareness (Stampoltzi et al., 2020; Sathiananthan et al., 2021; Santos et al., 2014). Most participants reported successful unit collaboration in this study. Healthcare teams must communicate well to avoid issues. Emergency and intensive care units benefit from strong cooperation for complex patient demands and care coordination (Gupta et al., 2015; Gampetro et al., 2019). This hospital has multiple high-risk departments; thus patient risk management requires collaboration. The cooperation results were good, although a small minority of respondents expressed worries about collaboration, suggesting opportunities for developing a friendly and collaborative atmosphere across all departments.

Over two-thirds of hospital personnel stated staffing shortages hurt them. Medical staff are overworked and burned out in understaffed clinics globally, especially in the Middle East. Because fatigue reduces judgment and response time, overworked personnel make mistakes (Ammar et al., 2022; Alsulami et al., 2019). Proper staffing promotes healthcare practitioners' well-being and prevents exhaustion and stress-related errors. Research suggests that resource allocation to staffing ratio modifications boost work satisfaction and patient outcomes, which may promote patient safety (AlShammari & Almoslem, 2018). Most respondents thought their supervisors were open to safety suggestions, showing patient safety leadership. Proactive leadership motivates people to practice safety, thus perceived leadership support is crucial. Staff can report faults and make adjustments without punishments under supportive leadership (Alshammari et al., 2021; Abdel-Latif & Abdel-Wahab, 2015). During peak times, numerous respondents felt pressured to emphasize speed over safety, forcing leaders to balance time efficiency and thorough, safe care. Safety must be prioritized under pressure to maintain good care standards (AL-Mugheed et al., 2022; Al Malki et al., 2017).

The study also showed inconsistent error reporting, especially for near-miss or pre-patient errors. Around half of respondents underreported such incidents, a common practice in healthcare owing to fear of blame, lack of time, or doubt that reporting improves results (AlOlayan et al., 2020; Almandil, 2016). Seeing mistakes as learning opportunities rather than blame could improve communication and system performance. Restoration of reporting trust could increase reporting rates, enabling the hospital identify safety risk patterns and resolve recurring issues (AL-Mugheed et al., 2022; Al Malki et al., 2017). Communication during patient transitions was another difficulty. Nearly half indicated vital patient handover information was sometimes missing. Miscommunications about a patient's illness, treatment plan, or other important details may increase handover risks. Standardized handover practices can reduce communication errors by consistently communicating vital

information (Al Hamid et al., 2019; Al Abbas, 2021). Standardizing department handover processes at Prince Abdulaziz bin Musaed Hospital may improve communication, continuity, and patient safety (Abdel-Latif & Abdel-Wahab, 2015).

Safety culture varied per unit, with most respondents viewing mistakes as learning opportunities and others as drawbacks. Some places have a blaming culture. Just societies encourage learning from mistakes without assigning blame, unlike blame cultures (Alshammari et al., 2015). In a non-punitive workplace, employees can feel safe raising issues, fostering innovation. Positive error responses promote transparency and continuous improvement, improving patient safety across departments (AlShammari & Almoslem, 2018). The hospital's temporary or float workers may not know unit-specific protocols, which alarmed respondents. Overusing temporary workers may strain unit cohesion and communication since they may not know protocols and patient needs. Prince Abdulaziz bin Musaed Hospital could benefit from thorough temporary worker orientation for unit work. These strategies would boost teamwork and reduce unfamiliarity-related safety issues (Alslubi & El-Dahiyat, 2019; Alsulami et al., 2019).

Most respondents thought hospital management supported patient safety, although some concerned that safety increased after unpleasant incidents. Frequent, this reactionary strategy may undermine a proactive safety culture. Prevention and continuity are better than event-driven safety improvements (Ballangrud et al., 2012; Elmorsy et al., 2022). Safety audits, staff involvement in safety planning, and incremental safety improvements are proactive safety culture approaches. A preventative safety approach that stresses safety over poor outcomes benefits healthcare organizations, according to research. Being proactive could enhance patient outcomes and safety culture at Prince Abdulaziz bin Musaed Hospital. The Prince Abdulaziz bin Musaed Hospital patient safety study offers several improvements. Staff and workload issues must be addressed first to avoid errors and burnout. Increased staffing ratios balance workloads, improve worker happiness, and reduce fatigue-related errors (Elvretta et al., 2021). Second, standardized communication and reporting could improve patient transfers and ensure errors and near-misses are reported and investigated. Communication standardization reduces error reporting and handover variability (Fouzan, 2022).

Hospital safety may increase if staff learn from mistakes rather than assign blame. Continuous improvement at Prince Abdulaziz bin Musaed Hospital can be achieved by discussing mistakes and using them to improve processes. Learning-centered approaches encourage workers to address mistakes, enhancing system-level patient safety (Gupta et al., 2015; Gampetro et al., 2019). Hospital administration can also emphasize safety through clear policies, direct staff participation, and safety improvement recognition. Staff participation in safety planning and audits could increase management's safety commitment and staff buy-in, fostering a safety culture (Jacob et al., 2022; Inácio et al., 2016). This study demonstrates that Prince Abdulaziz bin Musaed Hospital has good teamwork and leadership but poor staffing, communication, and error reporting. Organizing communication, addressing staffing issues, and encouraging non-punitive error handling can improve patient safety at the hospital. Research encourages proactive and collaborative safety. This study shows that this hospital and Saudi Arabian hospitals must address these issues. These ideas could improve regional healthcare due to rural hospitals' particular limits and resources (Kamran et al., 2018; Kim & Choi, 2024).

5. Conclusions

This study investigated Prince Abdulaziz bin Musaed Hospital's patient safety culture, showing strengths and problems. Research shows that strong teamwork, leadership commitment, and a supportive hospital culture promote patient safety. For effective patient care, especially in high-stakes units like the emergency department and intensive care units, many hospital providers understand patient safety concepts and collaborate. These positive indicators demonstrate a culture that prioritizes patient welfare and prevents negative consequences through collaboration and communication. The study also highlights key challenges to improving the

hospital's patient safety culture. Adequate staffing is a problem. Many respondents indicated understaffing creates exhaustion, errors, and overwork. Healthcare personnel who work over 40 hours a week may grow weary, compromising patient care. Thus, staffing shortages must be addressed to reduce fatigue-related errors and support healthcare personnel. Healthcare providers are happier and less stressed and burned out with higher staffing ratios, making patients safer. Error reporting at the hospital also improved. The investigation found conflicting reporting of near-misses and interceptions before reaching the patient. Underreporting incidences prevents the hospital from discovering trends that could reduce future risks. Healthcare providers should report errors without fear of repercussions. Establishing a culture of learning rather than blame helps the hospital use error data to improve patient safety and prevent future incidents.

Standardizing patient transition communication was advised. Handovers must be effective to maintain care continuity and reduce confusion. Structured department handovers can improve information accuracy and ensure critical patient data is transmitted. This prevents overlooking crucial details in high-pressure circumstances needing quick decisions. Numerous initiatives can help the institution expand on its strengths. These include managing staff shortages, standardizing communication and reporting, fostering learning-based error reporting, and including management in safety programs. Leadership's dedication to proactive safety measures can shape a hospital-wide patient safety culture. This study stresses proactive and comprehensive patient safety. Prince Abdulaziz bin Musaed Hospital is committed to safety but fixing the issues can improve its culture. Prioritizing resource allocation, communication, and non-punitive reporting can make the hospital safer and more useful for patients and staff. These findings can help hospitals and other healthcare institutions enhance patient safety culture, especially in regions with limited resources and specific challenges in providing consistent, high-quality treatment.

References

Abdel-Latif, M. M. M., & Abdel-Wahab, B. A. (2015). Knowledge and awareness of adverse drug reactions and pharmacovigilance practices among healthcare professionals in Al-Madinah Al-Munawwarah, Kingdom of Saudi Arabia. Saudi Pharmaceutical Journal, 23(2), 154–161. https://doi.org/10.1016/j.jsps.2014.07.005

Abdussalam Alshehri, Alkhowailed, M. S., Fahad Mohammed Alnuaymah, Alharbi, A., AlRomaihi, M. M., Ruba Saleh Alghofaili, Wala'a Saleh Al-Maddallah, Alqattan, S., & Maytha Abdullah Alyahya. (2018). Knowledge, attitude, and practice toward evidence-based medicine among hospital physicians in Qassim Region, Saudi Arabia. International Journal of Health Sciences, 12(2), 9–15.

Al abbas, A. M. (2021). Factors Influencing Patient Safety Culture in Saudi Arabia: A Systematic Review. Evidence-Based Nursing Research, 3(1), 15. https://doi.org/10.47104/ebnrojs3.v3i1.180

Al Hamid, A., Malik, A., & Alyatama, S. (2019). An exploration of patient safety culture in Kuwait hospitals: a qualitative study of healthcare professionals' perspectives. International Journal of Pharmacy Practice, 1(1). https://doi.org/10.1111/ijpp.12574

Al Malki, A., Endacott, R., & Innes, K. (2017). Health professional perspectives of patient safety issues in intensive care units in Saudi Arabia. Journal of Nursing Management, 26(2), 209–218. https://doi.org/10.1111/jonm.12536

Al-Khaldi, Y. (2013). Attitude of primary care physicians toward patient safety in Aseer region, Saudi Arabia. Journal of Family and Community Medicine, 20(3), 153. https://doi.org/10.4103/2230-8229.121976

AL-Mugheed, K., Bayraktar, N., Al-Bsheish, M., AlSyouf, A., Jarrar, M., AlBaker, W., & Aldhmadi, B. K. (2022). Patient Safety Attitudes among Doctors and Nurses: Associations with Workload, Adverse Events, Experience. Healthcare, 10(4), 631. https://doi.org/10.3390/healthcare10040631

AL-Mutairi, A., AlFayyad, I., Altannir, Y., & Al-Tannir, M. (2021). Medication safety knowledge, attitude, and practice among hospital pharmacists in tertiary care hospitals in Saudi Arabia: a multi-center study. Archives of Public Health, 79(1). https://doi.org/10.1186/s13690-021-00616-1

Albalawi, A., Kidd, L., & Cowey, E. (2020). Factors contributing to the patient safety culture in Saudi Arabia: a systematic review. BMJ Open, 10(10), e037875. https://doi.org/10.1136/bmjopen-2020-037875

Albishi, K. A., Albaik, M. Z., & Kofi, M. (2024). Attitude of Physicians Toward Patient Experience in Primary Health Care Settings, Riyadh, Saudi Arabia. European Journal of Medical and Health Research, 2(3), 104–120. https://doi.org/10.59324/ejmhr.2024.2(3).14

Algahtani, H., Shirah, B., Bukhari, H., Alkhamisi, H., Ibrahim, B., Subahi, A., & Aldarmahi, A. (2020). Perceptions and attitudes of different healthcare professionals and students toward interprofessional education in Saudi Arabia: a cross-sectional survey. Journal of Interprofessional Care, 1(2), 1–6. https://doi.org/10.1080/13561820.2020.1758642

Alharbi, W., Cleland, J., & Morrison, Z. (2018). Assessment of Patient Safety Culture in an Adult Oncology Department in Saudi Arabia. Oman Medical Journal, 33(3), 200–208. https://doi.org/10.5001/omj.2018.38

Alharbi, W., Cleland, J., & Morrison, Z. (2019). Exploring healthcare professionals' perceptions of medication errors in an adult oncology department in Saudi Arabia: A qualitative study. Saudi Pharmaceutical Journal, 27(2), 176–181. https://doi.org/10.1016/j.jsps.2018.10.001

Ali, H., Ibrahem, S. Z., Al Mudaf, B., Al Fadalah, T., Jamal, D., & El-Jardali, F. (2018). Baseline assessment of patient safety culture in public hospitals in Kuwait. BMC Health Services Research, 18(1). https://doi.org/10.1186/s12913-018-2960-x

Ali, M. D., Hassan, Y. A., Ahmad, A., Alaqel, O., Al-Harbi, H., & Al-Suhaimi, N. M. (2018). Knowledge, Practice and Attitudes Toward Pharmacovigilance and Adverse Drug Reactions Reporting Process Among Health Care Providers in Dammam, Saudi Arabia. Current Drug Safety, 13(1), 21–25. https://doi.org/10.2174/1574886313666171218123802

Ali, S., Moinuddin, K., Al-Aqqad, A., Salem, S., Al-Dossari, M., Ananzeh, A., & Baqar, J. (2018). Knowledge and attitude of health-care professionals toward adverse drug reactions reporting at King Saud Medical City. Journal of Pharmacy and Bioallied Sciences, 10(1), 29. https://doi.org/10.4103/jpbs.jpbs_234_17

AlMaani, M. M., & Salama, K. F. (2021). Assessment of Attitude of Primary Care Medical Staff Toward Patient Safety Culture in Primary Health-care Centers——Al-Ahsa, Saudi Arabia. Journal of Multidisciplinary Healthcare, Volume 14(1), 2731–2740. https://doi.org/10.2147/jmdh.s323832

Almandil, N. (2016). Healthcare professionals' awareness and knowledge of adverse drug reactions and pharmacovigilance. Saudi Medical Journal, 37(12), 1359–1364. https://doi.org/10.15537/smj.2016.12.17059

AlOlayan, R., Alahmad, A., Buali, D., Alonaizan, F., Alhareky, M., Alhumaid, J., & Nazir, M. A. (2020). Patient safety culture amongst dental students and interns in Dammam, Saudi Arabia. European Journal of Dental Education, 25(1), 175–182. https://doi.org/10.1111/eje.12588

Alquwez, N., Cruz, J. P., Almoghairi, A. M., Al-otaibi, R. S., Almutairi, K. O., Alicante, J. G., & Colet, P. C. (2018). Nurses' Perceptions of Patient Safety Culture in Three Hospitals in Saudi Arabia. Journal of Nursing Scholarship, 50(4), 422–431. https://doi.org/10.1111/jnu.12394

Alsafi, E., Baharoon, S., Ahmed, A., Al-Jahdali, H. H., Al Zahrani, S., & Al Sayyari, A. (2015). Physicians' knowledge and practice towards medical error reporting: a cross-sectional hospital-based study in Saudi Arabia. Eastern Mediterranean Health Journal, 21(9), 655–664. https://doi.org/10.26719/2015.21.9.655

Alsaif, M. (2018). Knowledge, attitude and practice on medication error reporting among health practitioners in a tertiary care setting in Saudi Arabia: A cross-sectional study. General Medicine: Open Access, 06(1). https://doi.org/10.4172/2327-5146-c1-003

Alshammari, F. M., Alanazi, E. J., Alanazi, A. M., Alturifi, A. K., & Alshammari, T. M. (2021). Medication Error Concept and Reporting Practices in Saudi Arabia: A Multiregional Study Among Healthcare Professionals. Risk Management and Healthcare Policy, Volume 14(1), 2395–2406. https://doi.org/10.2147/rmhp.s281154

Alshammari, F., Pasay-an, E., Alboliteeh, M., Alshammari, M. H., Susanto, T., Villareal, S., Indonto, M. C. L., & Gonzales, F. (2019). A survey of hospital healthcare professionals' perceptions toward patient safety culture in Saudi Arabia. International Journal of Africa Nursing Sciences, 11(1), 100149. https://doi.org/10.1016/j.ijans.2019.100149

Alshammari, T. M., Alamri, K. K., Ghawa, Y. A., Alohali, N. F., Abualkol, S. A., & Aljadhey, H. S. (2015). Knowledge and attitude of health-care professionals in hospitals towards pharmacovigilance in Saudi

Arabia. International Journal of Clinical Pharmacy, 37(6), 1104–1110. https://doi.org/10.1007/s11096-015-0165-5

AlShammari, T. M., & Almoslem, M. J. (2018). Knowledge, attitudes & practices of healthcare professionals in hospitals towards the reporting of adverse drug reactions in Saudi Arabia: A multi-centre cross sectional study. Saudi Pharmaceutical Journal, 26(7), 925–931. https://doi.org/10.1016/j.jsps.2018.04.012

Alslubi, H., & El-Dahiyat, F. (2019). Patient safety practices among community pharmacists in Abu Dhabi, United Arab Emirates. Journal of Pharmaceutical Health Services Research, 10(2), 203–210. https://doi.org/10.1111/jphs.12300

Alsulami, S. L., Sardidi, H. O., Almuzaini, R. S., Alsaif, M. A., Almuzaini, H. S., Moukaddem, A. K., & Kharal, M. S. (2019). Knowledge, attitude and practice on medication error reporting among health practitioners in a tertiary care setting in Saudi Arabia. Saudi Medical Journal, 40(3), 246–251. https://doi.org/10.15537/smj.2019.3.23960

Alwabel, A. M., Bawazir, A. A., & Al-Surimi, K. (2015). Assessment of patient safety culture among pharmacists in Riyadh hospitals, Saudi Arabia. Journal of Infection and Public Health, 8(4), 402. https://doi.org/10.1016/j.jiph.2015.04.016

Ammar, ShimaaM. A., Shaheen, H. E. M., Salama, A., & Mohasseb, M. (2022). Predictors of poor knowledge, attitude, and practice among primary care physicians toward end-of-life care. Menoufia Medical Journal, 35(2), 516. https://doi.org/10.4103/mmj.mmj_101_21

Appelbaum, N. P., Dow, A., Mazmanian, P. E., Jundt, D. K., & Appelbaum, E. N. (2016). The effects of power, leadership and psychological safety on resident event reporting. Medical Education, 50(3), 343–350. https://doi.org/10.1111/medu.12947

Asem, N., Sabry, H. A., & Elfar, E. (2019). Patient safety: knowledge, influence and attitude among physicians: an exploratory study. Journal of the Egyptian Public Health Association, 94(1). https://doi.org/10.1186/s42506-019-0022-9

B, T., S, A., Jebarathna .J, J., G, B., S, K., Biju, K., E 7, Pavalakodi., K, Pooja., & Ahamed .S .M., Y. (2023). Knowledge and Attitude on Patient Safety among ICU Nurses in Selected Hospital at Chennai. International Journal of Science and Research (IJSR), 12(10), 1075–1077. https://doi.org/10.21275/sr231011095523

Ballangrud, R., Hedelin, B., & Hall-Lord, M. L. (2012). Nurses' perceptions of patient safety climate in intensive care units: A cross-sectional study. Intensive and Critical Care Nursing, 28(6), 344–354. https://doi.org/10.1016/j.iccn.2012.01.001

Dimairo, M., Boote, J., Julious, S. A., Nicholl, J. P., & Todd, S. (2015). Missing steps in a staircase: a qualitative study of the perspectives of key stakeholders on the use of adaptive designs in confirmatory trials. Trials, 16(1). https://doi.org/10.1186/s13063-015-0958-9

Elmorsy, E., Alshammari, D. M., Alanazi, M. A., Alshammari, K. H. S., Alanazi, R. S., Alanazi, R. M. Z., Alruwaili, S. M., & Alanazi, G. khalid H. (2024). Awareness and Attitude About Ototoxic Drugs Among Medical Doctors in Arar City, Saudi Arabia. Cureus, 1(2). https://doi.org/10.7759/cureus.60429

Elmorsy, E., Saleh Alriwely, N., Saud, A., Alruwaili, M., Shayish, T., Alanazi, N., Nashi, M., & Alshemmari, O. (2022). Knowledge and Attitude towards Therapeutic Drug Monitoring Practices among physicians in Arar, Saudi Arabia. https://pjmhsonline.com/2020/july-sep/1026.pdf

Elvretta, J. J., Lase, J. A., Sakerebau, Y., Juniarta, J., & Ompusunggu, F. (2021). GAMBARAN SIKAP PERAWAT DALAM MELAPORKAN INSIDEN MEDICATION ERROR [DESCRIPTION OF NURSES' ATTITUDE IN REPORTING INCIDENTS OF MEDICATION ERROR]. Nursing Current Jurnal Keperawatan, 8(2), 127. https://doi.org/10.19166/nc.v8i2.3097

Esmaeilzadeh, P., & Sambasivan, M. (2012). Healthcare Professionals' Adoption of Clinical IT in Hospital: A View of Relationship between Healthcare Professionals and Hospital. Management, 2(5), 161–170. https://doi.org/10.5923/j.mm.20120205.04

Fouzan, A. (2022, November 11). Needle Stick and Sharp Object Injuries (NSSIs) and Reporting Rates among Health Care Workers in the Hospitals of Northern Border Region (Saudi Arabia): A Cross Sectional Study - ProQuest. Www.proquest.com. https://search.proquest.com/openview/32fe11d314c5355a526db4fa9b4e3a2e/1?pq-origsite=gscholar&cbl=2026366&diss=y

Gampetro, P. J., Segvich, J. P., Jordan, N., Velsor-Friedrich, B., & Burkhart, L. (2019). Perceptions of Pediatric Hospital Safety Culture in the United States. Journal of Patient Safety, 1(1), 1. https://doi.org/10.1097/pts.0000000000000602

Gupta, S., Nayak, R., Shivaranjani, R., & Vidyarthi, S. (2015). A questionnaire study on the knowledge, attitude, and the practice of pharmacovigilance among the healthcare professionals in a teaching hospital in South India. Perspectives in Clinical Research, 6(1), 45. https://doi.org/10.4103/2229-3485.148816

Hallit, S., Hajj, A., Shuhaiber, P., Iskandar, K., Ramia, E., Sacre, H., & Salameh, P. (2018). Medication safety knowledge, attitude, and practice among hospital pharmacists in Lebanon. Journal of Evaluation in Clinical Practice, 25(2), 323–339. https://doi.org/10.1111/jep.13082

Inácio, P., Cavaco, A., & Airaksinen, M. (2016). The value of patient reporting to the pharmacovigilance system: a systematic review. British Journal of Clinical Pharmacology, 83(2), 227–246. https://doi.org/10.1111/bcp.13098

Jacob, E. A., E. O, O., Kolawole, F., & Titilayo E, O. (2022). Attitudes and Behaviors of Healthcare Professionals toward HIV Positive Patients in a Tertiary Hospital. Biomedical Research and Clinical Reviews, 6(3), 01–07. https://doi.org/10.31579/2692-9406/094

Kamran, R., Bari, A., Khan, R. A., & Al-Eraky, M. (2018). Patient Safety Awareness Among Undergraduate Medical Students in Pakistani Medical School. Pakistan Journal of Medical Sciences, 34(2). https://doi.org/10.12669/pjms.342.14563

Kim, S., & Choi, S. (2024). Influences of Teamwork and Patient Safety Culture Awareness on Patient Safety Management Activities among Operating Room Nurses in General Hospitals. Journal of Business Convergence, 9(2), 161–166. https://doi.org/10.31152/jb.2024.04.9.2.161

Kishimoto, M. (2019). Survey evaluation of in-hospital diabetes seminars provided by medical professionals, for medical professionals. Journal of Multidisciplinary Healthcare, Volume 12(1), 445–452. https://doi.org/10.2147/jmdh.s209576

Kopciuch, D., Zaprutko, T., Paczkowska, A., Ratajczak, P., Zielińska-Tomczak, Ł., Kus, K., & Nowakowska, E. (2019). Safety of medicines—Pharmacists' knowledge, practice, and attitudes toward pharmacovigilance and adverse drug reactions reporting process. Pharmacoepidemiology and Drug Safety, 1(2). https://doi.org/10.1002/pds.4792

Lavin, M., Harper, E., & Barr, N. (2015). Health Information Technology, Patient Safety, and Professional Nursing Care Documentation in Acute Care Settings. The Online Journal of Issues in Nursing, 20(2). https://doi.org/10.3912/ojin.vol20no02ppt04

Lawati, M. A., Dennis, S., Short, S. D., Noor Abdulhadi, N., & Panchatcharam, S. M. (2017). Assessment of Patient Safety Culture in Primary Health Care in Muscat, Oman. Primary Health Care Open Access, 07(04). https://doi.org/10.4172/2167-1079.1000285

Lawati, M. H. AL., Dennis, S., Short, S. D., & Abdulhadi, N. N. (2019). Patient safety and safety culture in primary health care: A systematic review. BMC Family Practice, 19(1), 1–12. https://doi.org/10.1186/s12875-018-0793-7

Lim, L. (2019). Perceptions of Appropriateness of Psychiatric Referrals by Healthcare Professionals in a General Hospital. American Journal of Psychiatry and Neuroscience, 7(1), 19. https://doi.org/10.11648/j.ajpn.20190701.14

Mathew, B., Thomas, A., & Hiremath, D. (2021). Assessment of Knowledge Attitude and Practice on Medication Error Reporting among Clinical Pharmacists. Asian Journal of Pharmaceutical and Health Sciences, 11(2), 2462–2467. https://doi.org/10.5530/ajphs.2021.11.8

MM, A. (2019). Perception and Level of Awareness among Healthcare Professionals in Saudi Arabia about Pharmacoeconomics. Journal of Quality in Health Care & Economics, 2(3). https://doi.org/10.23880/jqhe-16000122

Mrayyan, M. T. (2022). Predictors and outcomes of patient safety culture: a cross-sectional comparative study. BMJ Open Quality, 11(3), e001889. https://doi.org/10.1136/bmjoq-2022-001889

Muftawu, M., & Aldogan, E. U. (2020). Measuring patient safety culture: A study at a teaching hospital in Ghana. Journal of Patient Safety and Risk Management, 1(2), 251604352093853. https://doi.org/10.1177/2516043520938534

Naser Ashraf Tadvi, Ali Ahmed Alromaih, Ahmed Abdulrahman Aldahash, Ali Abdulkarim Almuhesseny, Salman Hathal Alotaibi, Ibrahim Saad Alduhayshi, Ahmed Sayyaf Alrukimi, & Sami, W. (2018). Knowledge, Attitude and Practice of Pharmacovigilance in Healthcare Professionals and Medical Students in Majmaah, Saudi Arabia Care Centre. International Journal of Medical Research & Health Sciences, 7(4), 101–107.

Nisa, Z. U., Zafar, A., & Sher, F. (2018). Assessment of knowledge, attitude and practice of adverse drug reaction reporting among healthcare professionals in secondary and tertiary hospitals in the capital of Pakistan. Saudi Pharmaceutical Journal, 26(4), 453–461. https://doi.org/10.1016/j.jsps.2018.02.014

Osama Alsaied, Abdulbari Bener, Yousuf Al-Mosalamani, & Bakr Nour. (2012). Knowledge and attitudes of health care professionals toward organ donation and transplantation. Saudi Journal of Kidney Diseases and Transplantation, 23(6), 1304. https://doi.org/10.4103/1319-2442.103585

Papagiannis, D., Malli, F., Raptis, D. G., Papathanasiou, I. V., Fradelos, E. C., Daniil, Z., Rachiotis, G., & Gourgoulianis, K. I. (2020). Assessment of Knowledge, Attitudes, and Practices towards New Coronavirus (SARS-CoV-2) of Health Care Professionals in Greece before the Outbreak Period. International Journal of Environmental Research and Public Health, 17(4925), 4925. https://doi.org/10.3390/ijerph17144925

Reang, T., Chakraborty, T., Sarker, M., & Tripura, A. (2015). A study of knowledge and practice regarding Hepatitis B among nursing students attending tertiary care hospitals in Agartala city. International Journal of Research in Medical Sciences, 1(2), 1641–1649. https://doi.org/10.18203/2320-6012.ijrms20150244

Rejeb, M. (2017). Patient Safety Culture in a Tunisian Teaching Tertiary Care Hospital. Archives of Nursing Practice and Care, 1(2), 077–083. https://doi.org/10.17352/2581-4265.000030

Santos, J. C., Simões, R. M. P., Erse, M. P. Q. de A., Façanha, J. D. N., & Marques, L. A. F. A. (2014). Impact of "+Contigo" training on the knowledge and attitudes of health care professionals about suicide. Revista Latino-Americana de Enfermagem, 22(4), 679–684. https://doi.org/10.1590/0104-1169.3503.2467

Sathiananthan, M. K., Crawford, G. B., & Eliott, J. (2021). Healthcare professionals' perspectives of patient and family preferences of patient place of death: a qualitative study. BMC Palliative Care, 20(1). https://doi.org/10.1186/s12904-021-00842-y

Stampoltzi, A., Stylianaki, E., & Stavrinou, E. (2020). Parents' perceptions and views regarding vaccination: A pilot survey of parents-healthcare professionals and parents non-healthcare professionals. Hellenic Journal of Nursing Science, 13(4), 60–71. https://doi.org/10.24283/hjns.202046

Suyagh, M., Farah, D., & Abu Farha, R. (2015). Pharmacist's knowledge, practice and attitudes toward pharmacovigilance and adverse drug reactions reporting process. Saudi Pharmaceutical Journal, 23(2), 147–153. https://doi.org/10.1016/j.jsps.2014.07.001

Tegagn, G. T., Yadesa, T. M., & Ahmed, Y. (2017). Knowledge, Attitudes and Practices of Healthcare Professionals towards Antimicrobial Stewardship and Their Predictors in Fitche Hospital. Journal of Bioanalysis & Biomedicine, 09(02). https://doi.org/10.4172/1948-593x.1000159

Vilstrup, H., Amodio, P., Bajaj, J., Cordoba, J., Ferenci, P., Mullen, K. D., Weissenborn, K., & Wong, P. (2014). Hepatic encephalopathy in chronic liver disease: 2014 Practice Guideline by the American Association for the Study Of Liver Diseases and the European Association for the Study of the Liver. Hepatology, 60(2), 715–735. https://doi.org/10.1002/hep.27210

Vinay. (2016). Knowledge and Attitude about Rabies and its prevention among Practicing Physicians in urban Bengaluru. RGUHS National Journal of Public Health, 1(3). https://doi.org/10.26463/rnjph.1_3_4