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Assessment the Safety and Security Among Health Care Professionals on At Saudi Arabia

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Introduction:

An establishment must provide a safe and secure environment for the best possible service delivery. To ensure the safety and security of all workers in all businesses Patient security and safety are important aspects of high-quality healthcare. Safety is a cornerstone of patient care and a crucial component of quality management [1]. Similarly, it includes a wide range of activities related to improving performance, risk management and environmental safety, infection prevention, appropriate drug use, instrument security, safe clinical practices, and creating a safe environment for care.

Aim and setting: To assess the perceptions of health care professionals (HCPs) on safety and security at King Abduallah Hospitals Hospital. Methodology: A systematic sampling technique was used to select 362 HCPs from each category out of a total of 800 HCPs. A self-administered survey was used to gather data. Data analysis was done using SPSS® statistical software, version 28. A threshold of less than 0.05 was established for statistical significance. Methodology: A systematic sampling technique was used to select 362 HCPs from each category out of a total of 800 HCPs. A self-administered survey was used to gather data. Data analysis was done using SPSS, statistical software, version 22. A threshold of less than 0.05 was established for statistical significance.

Results : There were more female responses (272; 75.10%) than male respondents. Ages 30 to 47 made up the majority (114; 57.46%). There was a significant confirmation of perceptions regarding security personnel, their effectiveness, and the security system ($p = 0.0001$). People thought the hospital's surroundings, emergency plan, and infrastructure were safe ($p < 0.0001$). People thought the hospital's lighting system was insufficient ($p = 0.0041$). Just 73 HCPs (20.2%) thought hospital officials cared about workers' safety ($p < 0.0001$). **Conclusion**: The hospital's security system was seen favorably by HCPs. HCPs had favorable opinions of the hospital working environment, with the exception of the lighting system's observed shortcomings and the administration's apparent disregard for employee safety. The hospital administration must determine the cause of unfavorable opinions and implement corrective actions to address them.

Introduction:

Health care institutions are meant to provide a safe and secure environment for all users of the facilities.1 However, risks to patient and hospital staff safety and security still have an impact on doctors' oath to "do no harm,"2 in that patient care may be jeopardized when medical professionals (HCPs) are reluctant to provide assistance out of concern for their own safety. Up until 2003, injuries and lost time in British Columbia (BC) were more common in the health care sector than in any other. However, since 1998, the injury rate in the BC healthcare industry has drastically

decreased, according to the Workers Compensation Board (WCB) of BC.3 The WCB looked at how this was done and connected it to how safety procedures were implemented to introduce occupational health and safety measures for patient safety.4 Kjellén defined "safety" as protection against hazards, while security is protection against threats.5

The following are some ways that safety and security are defined in the New Oxford Dictionary of English6: "Safety" is the state of being shielded from danger or harm, and also refers to an object made to stop harm or damage, such safety barriers. "Security" refers to a condition of not being threatened or in danger, such as when protocols are followed or precautions are done to guarantee that state of stability and lack of fear or anxiety.7. It is evident from the previous story that there is not a very obvious distinction between security and safety. One is risk-free and well-protected in both situations. But if security refers to being free from risk, safety refers to being protected.7

The pleasure and general well-being of those seeking medical attention are greatly impacted by the healthcare system's heavy reliance on patient rights and safety [1]. Both elements are essential for maintaining ethical standards throughout the healthcare system, promoting the delivery of great care, and building trust and confidence between patients and healthcare professionals [1]. Upholding patient rights and ensuring patient safety are core principles that serve as the cornerstone for providing high-quality, moral, and patient-centered healthcare. Prioritizing these traits improves the overall efficacy and legitimacy of the healthcare system in addition to benefiting individual patients [1,2].

Therefore, based on the aforementioned justifications, it can be claimed that "security" refers to the systems, people, and procedures used to give an establishment the impression of "being secure," while "safety" primarily refers to the physical infrastructure, surroundings, installations, plans, and procedures put in place to remove threats or dangers, such as "being put in a place of safety." However, it is equally important to remember that security is necessary for safety, and vice versa.

Healthcare organizations recognize that patient safety is an essential part of their corporate culture and that it is a basic responsibility of all healthcare professionals. A major concern for all healthcare providers, ensuring patient safety is an essential component of the organizational culture within healthcare facilities. However, healthcare is complex and results are influenced by a number of factors [2].

The Institute of Medicine states that "the prevention of harm to patients" [3] is the definition of patient safety. The main focus is on the care delivery system, which is distinguished by the prevention of errors, the learning from mistakes that do occur, and the development of a safety-oriented culture that involves patients, healthcare providers, and institutions [3]. Medical errors affect one in five people, and this percentage could be as much as 35–42% in the neighborhood [4]. Consequently, preventable mistakes could result in the deaths or injury of thousands of people. More patient safety research is needed in light of the consequences of medical errors [4].

There is little access to detailed information about the scope and nature of hospital error rates linked to adverse patient events in Saudi Arabia. Nonetheless, it is asserted that over 3000 cases of medical malpractice are reported to medicolegal committees each year, and that over 40,000 medical error complaints are submitted in Saudi Arabia [5]. Out of 642 adverse occurrences, a prior study conducted in Saudi Arabia found that 20% of errors were related to operating rooms

and 18% were related to emergency departments [6]. There is evidence that pharmaceutical errors are common in Saudi hospitals as well, with 13 to 56 occurring for every 100 medicine orders [7]. Furthermore, a drug safety officer was present in just 9% of Saudi hospitals, whereas a mere 30% had a medication safety unit.

Significant of the study:

Assessing the whole working environment and the potential impact it may have on employees' interpersonal and personal behavior was one of the goals in the healthcare industry. It was discovered that there was a high rate of workplace violence; two-thirds of the employees agreed that there was not enough security staff, and 76% thought that the security guards lacked the necessary tools to perform their duties. Overall, 57% of respondents thought that visitor screening was inadequate and that there was a significant lack of trust in security personnel's ability to maintain a secure workplace.9.

However, little is known about the opinions of HCPs who are regularly the targets of violence that jeopardizes their safety and security at work. Information from the literature about HCPs' opinions of safety and security in Saudi Arabia and international healthcare facilities is scarce. Research has been done overseas on a few safety and security-related topics.3, 10, 11, 12, and 13. Interestingly, the majority of these studies evaluated security and safety in healthcare facilities in an indirect manner, such as by evaluating workplace violence against medical staff.14, 15, 16, and 17 The purpose of this study is to obtain a thorough understanding of how HCPs in a typical Saudi Arabia hospitals perceive their safety and security.

Aim and setting: To assess the perceptions of health care professionals (HCPs) on safety and security at King Abdullah Medical City Hospital (KAMC), Mecca, Saudi Arabia

Methodology :

Methods :

A cross- sectional descriptive study was carried out among 362 HCPs at King Abdullah Medical City Hospital (KAMC), Mecca, Saudi Arabia. From March 2024 to April 2024. Hospital. **Sampling** : A systematic sampling technique was used to select 362 HCPs from each category out of a total of 800 HCPs. They include; 46 full-time and 18 part-time doctors, 14 family medicine registrars, 532 nurses, 24 pharmacists, 24 radiographers, 5 physiotherapists, 2 social workers,6 clinical associates, 5 dieticians, 2 speech therapist, 2 occupational therapist and 10 clinical psychologists.

The sample size was determined to be 362 at a 95% confidence level, 5% confidence interval, and 341 target population. A pro rata number for each category of HCPs was chosen in order to get a representative sample from each group. Consequently, 362/800 (0.45) was utilized to systematically choose the individual responders for each category group. Nonetheless, if a single person represented a category, that person was included in the sample.

To reach this goal, seven requirements must be met, including: • Security systems to protect the building, patients, guests, and employees; The design and security measures to safeguard patients who are at risk; Adequate illumination both inside and outside is necessary to safeguard personnel, patients, and guests; Every security issue must be reported and handled appropriately; Staff members should be made more aware of safety and security concerns; The health facility should

have a current, documented certification from the local fire authority attesting to its compliance with applicable fire safety laws; A strategy for emergencies that guarantees the protection of patients' health at all times must be made available.

Study tools

tools: two tools were utilized to conduct this research;

Tool1: Perception of Security Questionnaire

it was developed by the researcher and grouped into two dimension ; namely. presence of security personnel, and security personnel efficiency, the security system (including incident reporting and processing of reported incidents).

Tool1: Perception of Security Questionnaire

It was developed by the researcher and grouped into seven dimension ; namely. : hospital infrastructure and surroundings , safety from fire the hospital lighting system ; the emergency evacuation plan (and staff confidence to follow it) ; safety from possible harm from patients and their visitors the protocol on violence prevention in the hospital , the hospital authorities' concern for employees' safety.

Pilot study:

Fifteen health care professionals filled out a questionnaire for a pilot study This was done in order to polish the survey and get rid of any potential ambiguity. With the help of a statistician, the research team developed the self-administered questionnaire from scratch. Every completed survey was gathered for examination. Randomization in each category was accomplished by systematic sampling, in which respondents were chosen from a sample of numbers assigned to each HCP in that group, as explained in the sampling technique above. This was done since the number of respondents in each category was defined by the pro rata proportion.

A self-administered survey was used to gather data. Data analysis was done using SPSS® statistical software, version 22. A threshold of less than 0.05 was established for statistical significance. Methodology: A systematic sampling technique was used to select 362 HCPs from each category out of a total of 800 HCPs. A self-administered survey was used to gather data. Data analysis was done using SPSS® statistical software, version 22. A threshold of less than 0.05 was established for statistical significance.

Data Analysis:

Frequencies, tables, and bar graphs, when appropriate, were used to display descriptive data. Version 28 of the SPSS® statistical program was used for the analysis. Bivariate statistical studies of dependent and independent variables for relationships using the chi-square test, when appropriate, and univariate analyses of the baseline characteristics were conducted. A significance criterion of less than 0.05 was established.

Results:

The baseline characteristics of the individuals are displayed in Table 1. There were more women (272; 75.1%) than men (90; 24.9%) among the 362 participants. The majority of participants (63%) were in the 30–50 age range. About 3% of them were older than 58. Most were unmarried (92; 51.90%). The professional categories of HCPs are listed in Table 2. Nurses made up the majority (282; 77.9%), followed by physicians (42; 11.6%).

Table 1: General Characteristics of Healthcare Providers:

Items	Frequency	Percentage
Gender		
Female	272	75.1
Male	90	24.9
Ages		
18–27	64	17.68
28–37	144	39.78
38–47	84	23.20
48–57	60	16.57
58–67	10	2.76
Marital status		
Single	192	51.93
Married	152	41.99
Widow	8	2.21
Widower	6	1.66
Divorcee	8	2.21
Total	**362**	**100**

Table 2: Distribution of healthcare providers according to their categories:

Health care professional	Sample frequency	Percentage
Doctors:	20	5.50
10	5	2.80
Sessions doctors	8	2.20
Family medicine registrars Community service doctors	4	1.10
Total	**42**	**11.60**
Nurses:		
Professional nurses	150	41.40
Enrolled nurses	64	17.70
Nursing assistants	68	18.90
Total	**282**	**77.90**
Radiography	24	3.31
Pharmacist	24	3.31
Dietician	4	0.55
Social worker	4	0.55
Physiotherapist	2	0.55
Clinical associate	1	0.55
Psychologist	1	0.55
Speech therapist	1	0.55
Occupational therapist	1	0.55
Total	**181**	**100.00**

Table 3 demonstrates that opinions regarding the security provided by the presence of security officers, the effectiveness of those personnel, and the effectiveness of the security system were all

substantially confirmed (p = 0.0001). According to Table 3, there was a statistically significant difference between those who agreed and those who disagreed with all HCPs' assessments of hospital security staff's effectiveness (p < 0.0001). Nevertheless, there was no discernible difference between the groups who agreed and those that disagreed when the views of the two primary HCP types (nurse and doctor) regarding the effectiveness of hospital security guards were compared (p > 0.05). However, a higher percentage of physicians (6; 28.6%) than nurses (14; 10.1%) said they were unaware of the hospital security system's effectiveness (p = 0.0174). When HCPs' opinions about the effectiveness of hospital security staff were compared by gender, there was no statistically significant difference (p > 0.1000) . Regarding how effectively reported security events were handled, doctors' and nurses' opinions did not differ significantly (p > 0.05; Box 1). Male and female HCPs' opinions of the effectiveness of the incident reporting system to the appropriate authorities did not differ significantly either, but a significantly higher percentage of female HCPs reported being unaware of this effectiveness (p = 0.0231; .

Table 3: perception of HCPs of security in the studied hospitals :

Perception	Agree *n* (%)	Disagree *n* (%)	Do not know *n* (%)	Agree versus disagree *P*-value
Security conferred by the presence of security personnel (*n* = 181)	202 (55.8)	120 (32.6)	42 (11.6)	*p* < 0.0001
Security personnel efficiency (*n* = 179)	197 (54.2)	118 (32.4)	48 (13.4)	*p* < 0.0001
Efficiency of the security system in protecting patients and staff (*n* = 181)	190 (52.5)	66 (36.5)	20 (11.0)	*p* = 0.0013
Incident reporting system to the relevant authority (*n* = 181)	134 (37.0)	114 (31.5)	114 (31.5)	*p* = 0.2086
Efficiency of hospital authorities in dealing with reported security incidents (*n* = 180)	86 (23.9)	100(28.3)	172 (47.8)	*p* = 0.2740

Table 4: Significant difference of security according to HCPs categories:

The hospital security system is efficient, (%)			
	Physicians	Nurses	*P*
Agree	(52.4)	(56.5)	0.7252
Disagree	(19.0)	(33.3)	0.1898
Do not know	(28.6)	(10.1)	0.0174
	Male	**Female**	*P*
Agree	21 (46.7)	76 (56.7)	0.2454
Disagree	15 (33.3)	43 (32.1)	0.8820
Do not know	9 (20.0)	15 (11.2)	0.1350
Reported security incidents are dealt with efficiently, *n* (%)			
	Doctor	Nurse	*P*
Agree	(14.3)	(28.1)	0.1819
Disagree	(42.9)	(23.7)	0.0631
Do not know	(42.9)	(48.2)	0.6513
The incident reporting system to the relevant authorities is efficient, *n* (%)			

	Male	Female	*P*
Agree	(46)	(33.8)	0.1425
Disagree	(35.6)	(30.1)	0.4922
Do not know	(17.8)	(36)	0.0231

According to Table 4, people felt that the hospital's surroundings, emergency evacuation plan, safety from fire hazards, and confidence in following it were all safe ($p < 0.0001$). People thought the hospital's lighting system was insufficient ($p = 0.0041$). Regarding their protection from potential danger from patients (81; 45.5% vs. 89; 50.0%; $p = 0.4614$) and their visitors (78; 43.8% vs. 85; 47.8%; $p = 0.4708$), about equal percentages of HCPs had both positive and negative opinions. Notably, 59.0% of healthcare professionals were unaware of the hospital's violence prevention strategy, and among those who were, there was a significant difference between those who had a favorable impression (22; 12.7%) and those who had a negative perception (49; 28.3%), $p = 0.0008$. Just 20.2% HCPs believed that hospital officials were concerned about their safety, which was a significant difference from those who believed otherwise ($p < 0.0001$).

Similar to the analysis done on security issues, additional research was done on safety issues to look into potential variations in the primary HCP groups (nurses and doctors) as well as gender variances. The percentages of male and female HCPs who disagreed that they were safe from patients and their visitors differed statistically significantly, with a correspondingly higher number of males disagreeing in each instance. Doctors were substantially more likely than nurses to be unaware of the emergency evacuation plan in terms of their opinion of the protocols to be followed in an emergency ($p = 0.0034$

TABLE 4: Perceptions of health care professionals on safety. **Perception**

	Agree *n* (%)	**Disagree *n* (%)**	**Do not know *n* (%)**	**Agree versus disagree**	***P*-value**
Hospital infrastructure and surroundings are safe (	(63.0)	(25.8)	(11.2)	< 0.0001	
The hospital environment is safe from fire	(55.4)	(20.3)	(24.3)	< 0.000	
The hospital lighting is adequate to ensure safety	(37.8)	(51.7)	(10.6)	0.0041	
The emergency evacuation plan is clear	(57.0)	(18.4)	(25.0)	< 0.0001	
Confidence to follow the emergency evacuation plan in emergencies	(55.9)	(24.0)	(20.1)	< 0.0001	
Safety from possible harm from patients in the hospital	(45.5)	(50.0)	(04.5)	0.4614	
Safety from possible harm from patients' visitors	(43.8)	(47.8)	(08.4)	0.4708	
The protocol on violence prevention in the hospital	(12.7)	(28.3)	(59.0)	0.0008	
The hospital authorities' concern for employees' safety	(20.2)	(51.1)	(28.7)	< 0.0001	

Discussion:

With an emphasis on security staff and their effectiveness, this study outlines how HCPs see security at the district hospital. Additionally, it evaluated how safe the HCPs felt in relation to the hospital's surroundings and infrastructure, including emergency protocols, and how concerned the hospital administration was about the general safety of the hospital staff. The majority of responders (71.9%) were nurses, which is in line with the majority of publications about how HCPs and HCWs are seen.3, 12, 18, This is because nurses make up the majority of the workforce in healthcare facilities worldwide.19.

Similar to a study conducted by Shaw at Cincinnati Children's Hospital Medical Centre in the United States, where more than half (101, 55.5%) of the respondents stated that they felt more secure when there were more hospital security personnel on duty, this study found that more than half of the respondents (101, 58%) affirmed that they felt secure when security personnel were present.17 The effectiveness of the hospital's security staff was seen favorably by slightly more than half of the respondents (54.2%). They said they felt safe because of the security guards' effectiveness.17

Their response can result in the HCPs providing effective services in a setting where they feel safe.20 Since they appear to create the required sense of security among the HCPs, hospital management should continue to have security officers on site and to carry out their duties. The opinions of nurses (56.5%) and doctors (52.4%) regarding the effectiveness of the security system did not differ significantly. Regarding the percentage of nurses, our results were comparable to those of Rodriguez et al.12, who found that, in a Level III hospital in Bogota, Colombia, roughly 54% of the nurses trusted the security systems' effectiveness as compared to other professions.

The respondents' assessments of the security personnel's effectiveness were unaffected by their sex, as both males (46.7%) and females (56.7%) confirmed this effectiveness. Due to the dearth of study on this subject, their findings could not be compared with those of other studies. This indicates that opinions on the effectiveness of the security staff were similar among nurses and physicians of both sexes. Nearly one-third (31.5%) of the participants said they were unaware of the hospital's security reporting system. Safety reporting was seen as the most crucial component of workers' occupational health safety practices, per the study by Abdullah et al. 10. Gillespie et al.,21 have emphasized the significance of a universal violence incident reporting system in a particular institution in the fight against workplace violence. Thus, this can be a sign that hospital administration has neglected to inform staff members about the reporting system for hospital safety and security.

The fact that nearly one in two (47.8%) HCPs said they were unsure if hospital security incidents were handled effectively and that only roughly one quarter (23.9%) believed that reported incidents were handled effectively—that is, logically—raises concerns for hospital administration. According to published research, employees are reluctant to even start the incident reporting procedure when they have a negative impression of how reported unsafety situations are handled.14 In order to guarantee that the HCPs receive appropriate input, the hospital authorities must enhance this area by incorporating the leaders of the HCPs.

the majority of respondents (63.0%) agreed with the assertion that the hospital's surroundings and infrastructure were safe for employees to work in, and that there was no risk of fire (55.4%). Due to the paucity of study in this area, none of these items could be compared with other studies.

Only 2.71% and 2.77% of the nursing and administrative staff, respectively, trusted the safety of the hospital environment, according to one study by Rodriguez et al.12. A slightly higher percentage of respondents (51.4%) said that the hospital's lighting system was insufficient to guarantee patient safety. According to a survey by Steinman, more than half of respondents agreed that providing adequate lighting in an establishment increases safety.

The hospital has a written workplace violence prevention protocol, although more than half of the HCPs (59.0%) were unaware of it. This could suggest that the HPCs need to be made more aware of the hospital's documented workplace violence prevention protocol. With a safety committee,

education programs, protocols, training, immunization, and the prevention of health-related dangers, the Centers for Disease Control and Prevention (CDC) promoted administrative responsibility for occupational safety in institutions.22 Nearly the same proportion of respondents (57.0%) confirmed the existence of the emergency evacuation plan, and the majority of respondents (55.9%) said they were aware of the protocol to be followed in the event of a hospital emergency evacuation. Gillespie and associates 21

According to Gillespie et al.21, preventing and reducing workplace violence in the healthcare industry requires individual awareness and proficiency in universal safeguards.

The fact that a substantially higher percentage of nurses than doctors had a poor opinion of the hospital's emergency evacuation strategy should be noted and investigated by the hospital administration.

Over half of the healthcare professionals (51.1%) believed that the hospital administration did not care about their physical or mental health. According to Erikson, occupational health and safety performance suffers when management places the blame for accidents and injuries on the worker.23 Therefore, the degree to which employers and employees advocate for the adoption of the best practices in health and safety depends heavily on the organizational culture surrounding safety and security. Of the HCPs, one in two (51.1%) believed that the hospital administration was concerned about their safety.

This could be an indictment that the hospital management needs to correct because it has been demonstrated that employees in establishments with a strong safety climate experience fewer accidents. This is due to both the implementation of safety programs and the fact that the very existence of these programs shows employees that the authorities are committed to their safety.24, 25 Changes to procedures, policies, and the environment are all part of the effort to reduce workplace violence, and these should be regularly shared with employees in order to keep them informed and give them a sense of the employer's appreciation.17

According to this study, HCPs' opinions on security were substantially supported by the presence of security personnel, their effectiveness, and the effectiveness of the security system. Regarding security staff, security infrastructure, patient safety, reporting systems, emergency and evacuation preparations, and other matters, HCPs' opinions were generally favorable but varied. The necessity for measures to address unfavorable attitudes about hospital illumination and management's disregard for the safety of healthcare professionals is highlighted by these perceptions.

The current study has limitations even if it makes important contributions. In order to understand the results in a nuanced way, it is imperative to acknowledge any biases and limitations. It is necessary to conduct additional research to look into many aspects of the views that medical professionals hold. This could entail a careful analysis of how personal experiences and institutional culture impact these perceptions. This is the first study of its kind to look at how healthcare professionals in the Najran area view patients' rights and safety. However, this research has many shortcomings as well. Since this study was cross-sectional and only looked at the Najran area, it is impossible to prove causation, and the findings might not apply to Saudi Arabians in general.

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