Research Article

Healthcare Managers' Perception on Patient Safety Culture

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ABSTRACT

Introduction: This paper takes a detailed look at safety culture, different roles, and powers shared by managers, lessons from which can be applied in any form of management. It also focuses on the job of managers in enhancing safety standards in a health institution. The objective of this paper was to examine the managers' perception of patient safety culture. Methods: This study followed a quantitative cross-sectional design. The research procedure involved all middle-level managers in Aseer Central Hospital in Abha, Saudi Arabia (N = 52). To assess the status of patient safety culture and the role of healthcare managers in the field study, the researchers constructed a study questionnaire; it included questions adapted and modified from the Safety Attitudes Questionnaire, the Hospital Survey on Patient Safety Culture questionnaire, the 10 Mintzberg managerial roles and the six types of power for healthcare managers. **Results:** Most participants were Saudi nationals (73.1%) aged 31 to 40 years (44.2%). The managerial role practiced frequently was leadership (85%), but the least managerial role was the figurehead (23%). Mangers held positive attitudes toward patient safety culture with 100% positive replies. No significant association was found between sex, nationality, years of experience, and professions concerning patient safety. Additionally, the results indicated that most managers were willing to uphold a safe environment for their patients and ready to involve employees in decision-making strategies to motivate them. **Conclusion:** The managerial choices in Aseer Central Hospital are based on the culture and tradition of the community, which might negatively undermine the capability of other individuals handling the same office based on their educational backgrounds and competency. Such situations also may demoralize the employees, leading to poor employee performance Suboptimal achievement was exhibited primarily by middle-level healthcare managers of all six power types: resource allocator, negotiator, liaison, spokesperson, figurehead, and entrepreneur. Therefore, there is a pressing need to improve managers' attitudes toward patient safety and activate managerial roles to ensure patients' safety is practiced unequivocally.

Keywords: patient safety, healthcare managers, safety attitudes questionnaire, hospital survey on patient safety culture questionnaire, Mintzberg managerial roles, power for healthcare managers

INTRODUCTION

There is no doubt that healthcare managers can directly affect the quality of healthcare services and patients' safety. Managers in healthcare are both morally and legally responsible to provide high-quality care and ensure patients' safety.^[1,2] As leaders, their responsibilities are to create new policies, update old ones, and make important decisions on a daily basis. Part of management's task is to create a supportive work environment that enables subordinates to give patients the best care possible.^[3]

The idea of patient safety goes back to ancient Greece when Hippocrates laid down the rule, "Above all, do no harm."^[4] An increase in legal proceedings against both doctors and hospitals ensures that management can scrutinize and deal with any report of medical error, negligence, or defect in procedures that may cause harm to patients. Research shows that most adverse hospital incidents are preventable, and some are due to management-related factors. There is a definite link between patient safety and management quality.^[5,6] Management is one of the most important reasons for an organization's progress or retrogress.^[7] Patient safety can be affected by several factors, including misdiagnosis, errors in prescription or administration of medications, adverse side effects of medications, and others. One of the major contributors to unsafe patient care is the shortfall of healthcare workers. It was estimated that there was a shortage of approximately 2.4 million healthcare providers worldwide, resulting in a disproportionate patient–caregiver ratio.^[8]

Work overload is associated with stress, burnout, and chances of errors in patient care, which can otherwise be prevented. Furthermore, lack of communication within and between departments in healthcare organizations has been identified as the single largest contributor to unsafe care in developed countries, such as the United States. In addition, several studies focused on Saudi Arabian healthcare have also identified lapses in communication within the assessed organizations indicating this issue is not limited to developed nations.^[9–11] All the abovementioned factors can adversely influence patients' safety, yet managers and leaders endure huge obstacles in overcoming these issues.

Interest in patient safety culture in Saudi Arabia and other Arab countries began in 2007 with the encouragement of the WHO (World Health Organization) and the World Alliance for Patient Safety. An initial assessment by the WHO that assessed one randomly selected hospital from each of seven Arabian countries found all hospitals severely lacking in good leadership and management, which are key areas that influence patient safety culture.^[12] Since then, there has been a joint effort from the healthcare industry to evaluate and examine existing safety standards and generate strategies to improve the quality of care and patient safety.

Studies have shown that the perceptions of healthcare professionals in Saudi Arabia regarding patient safety have not changed significantly over the last two decades. The consistently low scores for the "nonpunitive response to error" theme of the Hospital Survey on Patient Safety Culture (HSOPSC) suggest that blame culture is quite prominent among healthcare facilities. While medical errors continue to occur, healthcare employees are hesitant to report them because they fear blame or retribution. In addition, while teamwork appears to be perceived as important for patient safety, there is still a need for improvement in communication between departments. Open communication and effective teamwork between departments are required for smooth operations in the healthcare facility and to enable the best possible care for the patient. Furthermore, from an organizational standpoint, providing an effective support system for healthcare providers (especially recognizing stress and burnout) could further improve patient safety.^[3,10,13–16]

The Saudi Patient Safety Center (SPSC) was established in 2017 to improve patient safety standards in hospitals and other healthcare facilities in Saudi Arabia. The SPSC aims to improve patient safety by preventing medical errors and increasing efficiency and patient satisfaction. The SPSC also serves as a hub for theoretical and practical research studies about patient safety, which shall be published in periodicals and scientific journals.^[17]

The SPSC's purpose is to increase public awareness regarding safety and the preventability of medical errors and to create a national registry to document medical errors, as and when they happen, both in private and governmental healthcare organizations.^[18] In addition, the SPSC is committed to participating in national and international forums to exchange information regarding the causes of medical errors and strategies for improving patient safety. The center coordinates with the Saudi Central Board for Accreditation of Healthcare Institutions and the Saudi Commission for Health Specialties; this coordination enables establishing standardized healthcare practices throughout the country that also meet current safety requirements by these agencies.^[17]

The Saudi Arabia: A 2030 Vision Initiative was also established in 2017; it had similar patient safety goals but explicitly addressed pharmaceuticals and pharmacovigilance. The initiative was a step toward clarity in the procurement and prescription of pharmaceuticals among patients in the country. It also increased awareness among the healthcare sector and the public regarding the dangerous consequences of wrong medications and prescription errors. Continued efforts in these directions would go a long way in ensuring the best quality of care for patients in Saudi Arabia.^[19]

In this study, a structural analysis was conducted to broaden our understanding of the patient safety culture shared by directors and managers in Aseer Central Hospital (ACH). Research outcomes in this area can be used to influence policies and procedures in medicine and patient safety. Ultimately, all these efforts can lead to developing best practice strategies in healthcare facilities focusing on patient safety. Therefore, this study seeks to answer several questions that can help hospital managers more effectively improve patient safety and quality care provided in the hospital. This study also aimed to identify factors considered by managers that pertain to a patient safety culture that may help improve patient safety practices specifically at the ACH.

METHODS

Study Design

A cross-sectional design used to survey healthcare managers working at the ACH in Abha, located in the southwest of the Kingdom of Saudi Arabia. The ACH is a central hospital with a bed capacity of 450 beds and is a referral hospital for almost all peripheral hospitals and primary healthcare centers in the southern region of Saudi Arabia. A paper-based questionnaire was distributed to all middle-level healthcare managers (N = 52) in the ACH in various departments at the ACH. The response rate was 100%.All questionnaires were obtained and analyzed in 2019.

Ethical approval for this study was obtained from the King Khalid University Research Ethics Committee (approval No. REC 2017-05-14), and written informed consent was obtained from all participants before study participation.

Measurement Tools

The required information was searched using scientific libraries and databases regarding patient safety culture. To assess the current status of patient safety culture and the role of healthcare managers in the field study, the researchers constructed a study questionnaire, which included questions adapted and modified from the Safety Attitudes Questionnaire (SAQ)^[20] and the HSOPSC questionnaire^[21] in addition to the 10 Mintzberg managerial roles^[22] and the six types of power for healthcare managers.^[23] The SAQ identifies areas with poor patient care and can motivate healthcare managers to implement quality improvement strategies, whereby the risk of adverse events may be reduced.^[20]

The HSOPSC was developed by the United States Agency for Healthcare Research and Quality (AHRQ) to assess patient safety culture in the hospitals with a great focus on the management role. The tool focuses solely on patient safety and the procedures followed by managers. The HSOPSC was applied to assess the healthcare workers' perceptions regarding the reporting of events (such as adverse events, errors), event reporting responsibility and frequency, reasons for not reporting events, communication, and nonpunitive responses to errors. It also assessed patient safety, including supervisor expectations, actions promoting patient safety, organizational learning, compliance with rules, teamwork, communication, overall perceptions of patient safety, and interpersonal relationships among healthcare personnel.^[21]

The 10 Mintzberg managerial roles include the following three basic dimensions: the key part of the organization, the prime coordinating mechanism, and the type of decentralization used. Using these three basic dimensions, Mintzberg suggested that the strategy an organization adopts and the extent to which it practices that strategy results in the following five structural configurations: simple structure, machine bureaucracy, professional bureaucracy, divisionalized form, and adhocracy.^[22] For assessing participants' managerial roles, we assumed a cutoff of 50%, above which participants would be optimally fulfilled their managerial roles.

Our study questionnaire also included the six types of power for healthcare managers. The strategies are essential for comprehending the management influence on the employees and organization in general. Such bases of power should play an influential role in maintaining patient safety in a health institution.^[23]

The study questionnaire had four sections. The first section (A) asked some introductory questions (demographics) about sex, age, nationality, current job, and experience of the healthcare managers. The second section (B) was related to self-perceived patient safety culture of the healthcare managers from both HSOPSC (10 questions) and SAQ questionnaires (2 questions). The third section (C) asked healthcare managers about the 10 Mintzberg quality and patient safety managerial roles. Each role had three questions (three items per work role construct). The fourth section (D) examined the six types of power for healthcare managers. Each power had three questions (three items per power base construct).

The present study combined an Arabic translation of the questionnaire with an English version. Every item could be seen in Arabic and English, and participants had the choice to use their preferred language. The internal consistency of the study questionnaire was high (Cronbach α coefficient = 0.82). The average duration of data collection was 15 minutes.

Statistical Analysis

Characteristics of the participants are described using numbers and percentages. Cronbach α was used to measure the internal consistency of the different sections of the questionnaire. The percentage of engagement in different managerial roles in daily and weekly frequency was calculated for every question and every managerial role in section C of the questionnaire. The percentage of positive replies for each question and each type of power was done for section D by summing the *agree* and *strongly* agree responses. Patient safety culture and attitude among participants were assessed using the results of section B of the questionnaire, and each participant was given a score of 100 based on their answers, taking into consideration the reversed scoring of some questions. Patient safety culture scores were summarized as mean and SD.

The difference in safety culture score between males and females and between Saudis and non-Saudis was tested using an independent t test. The differences among different qualifications and different processions were tested using one-way ANOVA. The association between the achieved scores, age groups of participants, and years of experience in the facility and the profession was done using the Spearman correlation. With consideration of the sample size, power of the statistical test, and expected losses from type I and II errors, all statistical tests were conducted at a significance level of 0.05 using the Statistical Package for Social Sciences (IBM SPSS Statistics for Windows, version 23.0. Armonk, NY).

RESULTS

A total of 52 middle-level hospital managers participated in this study. Most of the participants were males and Saudi nationals. Most active-duty managers in the ACH were aged 31 to 40 years, with a minority of managers less than 30 or more than 50 years. Table 1 shows more details of study characteristics.

The educational level of the participants varied among graduate (35%), postgraduate (23%), and professional

Та	b	le	1.	Participant	characteristics
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Characteristics of Participants	Ν	%
Sex		
Male	29	55.8
Female	23	44.2
Age group, y		
≤ 30	8	15.4
31-40	23	44.2
41–50	15	28.8
51-60	4	7.7
≥ 60	2	3.8
Mean \pm SD	38.8 ± 12	2.9
Nationality		
Saudi	38	73.1
Non-Saudi	14	26.9
Qualification		
Undergraduate	18	34.6
Postgraduate	12	23.1
Professional qualification	22	42.3
Profession		
Physician	16	30.8
Nurse	30	57.7
Technician and other	6	11.5
Experience in facility, y		
1–5	7	13.5
6–10	24	46.2
11–15	12	23.1
16–20	6	11.5
≥ 21	3	5.8
Experience in profession, y		
1–5	6	11.5
6–10	25	48.1
11–15	8	15.4
16–20	6	11.5
≥ 21	7	13.5

(42%) qualifications. The highest percentage of participants were from a nursing background (58%), followed by physicians (31%), and the rest were technicians and other backgrounds. The most frequent years of experience were between 6 and 10 years in the facility (46%) and the profession (48%).

The time spent on quality and safety activities has increased compared with 2 years ago, and more managers are expected to spend more time in the future (Table 2).

Moreover, the assessment of participants' managerial roles and activities regarding the safety of patients was done according to the Mintzberg managerial roles with a cutoff of 50%. Table 3 shows that participants who exhibited optimal control were primarily disturbance handlers (69%), disseminator (62%), monitor (64%), or leader (85%). On the other hand, those who suboptimally fulfilled their managerial roles included a resource allocator (36%), a negotiator (49%), liaison (43%), spokesperson (27%), figurehead (23%), or entrepreneur (39%).

The power that healthcare managers have in quality and safety are measured using French & Raven's framework of power bases to categorize types of power.^[20] The highest category to receive positive replies

	Time Spent on		
Status	Patient Safety, %	N	<u>%</u>
Currently	11–25	3	5.8
	26-50	9	17.3
	51-90	21	40.4
	91-100	19	36.5
2 years prior	11–25	3	5.8
	26-50	10	19.2
	51-90	24	46.2
	91-100	14	26.9
	Not applicable	1	1.9
In the next 2 years	11–25	2	3.8
	26-50	4	7.7
	51-90	19	36.5
	91–100	27	51.9

 Table 2. Time spent by healthcare managers on patient safety and quality

was information power, followed by reward and referent powers. Moreover, the power that received the least number of positive responses was coercive. This information is shown in Figure 1. The study also evaluated patient safety culture and attitudes among managers. Three questions received 100% positive replies as follows: patient safety is a top priority, work climate promotes patient safety, and managers say positive words when they see a job done according to established patient safety procedures. The question that received the least positive answers concerned patient safety problems that had not been dealt with (17%). Details regarding the questions and their answers are shown in Tables 3 and 4.

Patient safety culture and attitude among participants were assessed, and each participant was given a score of 100 based on their answers. The minimum score achieved was 65, the maximum was 95, and the mean (SD) score was 81(8).

The association between patient safety scores and multiple characteristics of participants was tested using the appropriate statistical tests, but no significant association was found. The difference in score between males and females and between Saudis and non-Saudis was tested using an independent t test. The difference among different qualifications and different processions was tested using one-way ANOVA. The association between the achieved scores, age groups of participants, and years of experience in the facility and the profession were done using the Spearman correlation. None of the above variables showed any statistically significant association with the safety culture score.

DISCUSSION

This study was designed to answer questions about the views and activities of hospital managers regarding patient safety and quality care provided in the hospital. Factors considered by managers at ACH that pertain to a patient safety culture were explored, which may help improve patient safety practices.

Table 3. Frequency of healthcare managers' work activities related to quality and patient safety

		Freque	ency (%)				% of
Managerial Role	Description of Activity	Never	Quarterly	Monthly	Weekly	Daily	Activities
Disturbance handler	I take remedial actions when I am faced with critical, unanticipated	2	2	6	8	34	81
	I take remedial actions when unanticipated work pressures are too large not to be faced	4	4	10	12	22	65
	I take remedial actions for managing operational failures/adverse events.	4	1	14	15	18	63
	Total. %	6	4	19	22	47	69
Disseminator	I make sure that colleagues are kept up to date with information to	0	4	11	6	31	71
	enable them to deal with patient safety issues.						
	I share communications from patients regarding complaints or adverse incidents with the relevant people.	6	2	9	12	23	67
	I share accrued figures in regard to safety and quality with staff.	5	10	13	8	16	46
	Total, %	7	10	21	17	45	62
Monitor	I conduct investigations into any adverse incidents.	6	0	7	11	28	75
	I investigate the best ways to learn about patient safety and quality procedures.	3	7	10	16	16	62
	I oversee safety and quality targets, for example, the targets for waiting times.	2	8	14	10	18	54
	Total, %	7	10	20	24	40	64
Leader	I involve colleagues in activities for improving quality.	0	0	5	13	34	90
	I interact with staff for developing their professional duties and activities regarding patient safety.	0	2	10	13	27	77
	I promote teamwork for improving safety and quality.	0	1	5	8	38	88
D	Total, %	0	2	13	22	63	85
Resource allocator	I approve purchases which will maintain safety and quality in my department.	5	13	7	5	22	52
	I acquire equipment which will bring improvements to procedural quality or safety.	13	11	13	7	8	29
	I deal with issues regarding capacity (for example cancelling or booking beds, staff, theatres, or clinics).	8	12	17	9	6	29
	Total, %	17	23	24	13	23	36
Negotiator	I lead negotiations with colleagues on issues affecting quality and patient safety.	2	0	12	12	26	73
	I lead negotiations with colleagues who have agreed on issues of patient safety.	5	10	16	10	11	40
	I solve issues regarding patient safety which occur within other units.	17	8	10	4	Daily 34 22 18 47 31 23 16 45 28 16 45 28 16 34 27 38 63 22 8 6 11 13 32 5 7 24 10 6 11 13 32 5 7 24 10 9 7 9 16 17 9 16 17 27 28 39 16 17 27 28 29 16 <td< td=""><td>33</td></td<>	33
T • •	Iotal, %	15	12	24	17	32	49
Liaison	the department which facilitate safety and quality.	2	8	/	10	25	67
	performance and quality.	1	9	10	8	5	25
	external bodies and my department.	10	0	12	10	Daily 34 22 18 47 31 23 16 45 28 16 45 28 16 34 27 38 63 22 8 6 11 13 32 5 7 24 10 6 11 13 322 5 7 24 10 9 11 9 7 9 16 17 9 16 17 9 16 17 27	33
Spokesperson	I communicate safety and quality issues with others outside of my	12	15	31 13	19	24 10	45 27
spokesperson	hospital.	20	0	0	4	6	25
	regard to quality targets.	23	0	0	5	0	23
	groups.	27	14	12	10	Daily 34 22 18 47 31 23 16 45 28 16 45 28 16 45 28 16 45 28 18 40 34 27 38 63 26 11 13 32 5 7 24 10 9 7 17 9 16 17 9 16 17 9 16 17 9 16 17 27 28 29 16 17 9	31 27
Figurehead	Luse my roles as an organizational representative to escort safety	27	1 - 7	5	3	10	25
riguiencau	assessors and external quality.	5	, 10	22	5	0	23
	or helping with safety and quality issues.	16	10	23	1	7	15
	department's behalf.	10	12	10	I	17	15
Entroproperty	I am involved in designing and improving convice processor (for	51 0	19 12	2 ð 10	0	1/	23
Entrepreneur	example, changing care pathway steps).	0	12	19	4	У 16	23
	compose standard operating procedures for improving care quality and patient safety.	2	10	16	8	16	46
	1 100K at external and internal environments to find innovations which can improve my service.	11	/	11	6	1/	44
	Total, %	13	19	29	12	27	39



Figure 1. Percentage of positive replies for each type of managerial power.

Our study results describe numerous management strategies that different healthcare institutions can implement. The results show that culture is imperative in shaping organizational management and leadership. Another essential factor to consider is the effect of age on effective management. Based on the results, the highest number of managers participating the research exercise was between 31 and 40 years old.

Most organizations believe that a leader's age is critical in promoting performance and effectiveness. Although most institutions believe that an older manager prevents the level of productivity or a younger manager lacks relevant management skills and experience, it is essential to understand the leader's management background and level of training and professionalism. However, a manager's performance has no connection with the age group. One study indicated that negative perception played a significant role in having a negative attitude toward a specific age group and their ability to lead the organization effectively.^[24]

Another study that examined the relationship between age and effective management found that professionalism among leaders is not dependent on age but on the level of training.^[25] For that reason, it would be difficult to judge managers who cannot maintain patient safety based on their age. However, the experience level is imperative in improving service delivery in healthcare institutions, as far as introducing safety standards for employees and patients.

Education is another essential factor to consider when checking on management performance and service delivery. Study results show that the highest percentage of managers had professional qualifications. Professionalism is crucial in making effective decisions to introduce changes within healthcare institutions.^[26] When teaching strategies to improve safety within a healthcare institution, it is necessary to have critical decision-making ability and high expertise. Decision-makers acquire such capabilities and traits through advanced education and training. Management education plays an essential role in providing remedies to management problems.^[27]

	Question	Responses (%)					Positive
Dimension		SD	D	Ν	А	SA	Replies (%)
Hospital management support for patient safety	I usually be involved in the safety of patients subsequent only to incidents occurring.*	20	14	9	3	6	65
	My activities demonstrate that the safety of patients is my primary concern.	0	0	0	4	48	100
	In the hospital I promote the safety of patients through the working climate.	0	0	0	8	44	100
Manager expectations and actions promoting safety	I give praise when a task is performed well in accordance with patient safety procedural conventions.	0	0	0	13	39	100
	When there is an increase in pressure, I want colleagues to get the job done, even though this may involve taking a shortcut.*	9	11	7	13	12	38
	I give serious consideration to suggestions from colleagues for improvements to the safety of patients.	0	0	1	13	38	98
	I am aware of issues with patient safety that have not yet been dealt with.*	0	9	11	16	16	17
Managers' safety attitudes	I provide support to colleagues' efforts in maintaining patient safety standards.	0	2	2	13	35	92
	I do not consciously put patient safety at risk.	10	3	0	6	33	75
Impact	My working procedures occasionally adversely affect patient safety and quality.*	29	9	5	7	2	73
Target	There are times when patient safety has been put at risk to ensure that other targets are achieved.*	31	1	8	9	3	62
Line management	My line manager offers a working environment which facilitates the promotion of patient safety.	3	0	6	28	15	83

Table 4. Patient safety attitudes and actions

*Reverse-type questions.

SD: strongly disagree; D: disagree; N: neither agree nor disagree; A: agree; SA: strongly agree.

Furthermore, Rausch et al^[28] indicated that management education improves the level of discipline and ethics among managers, which is useful in providing figurehead managers. Management education is essential in promoting effective communication, adapting to the competitive environment, and developing skills.^[28]

For that reason, when maintaining patients' safety within the health institution, it is necessary to use managers and administrators with relevant training and a high level of education. Educational background might be critical in determining a manager's expertise and capability of handling organizational management activities.^[29]

Most managers who participated in the research (57.7%) had a nursing background, and approximately one-third (30.8%) were physicians. With such experience, managers can understand areas that require improvement as far as patient safety is concerned. We assume it is not optimal to hire a manager who does not have a background in healthcare (e.g., accounting) to handle matters related to healthcare and patients' safety.

The experience level plays a vital role in boosting a manager's performance. Our data showed that most managers who participated in the research process had more than 6 years of experience in their professions and in the organizations they manage. Such a background is essential because the managers have all the information related to their field.^[30] This makes the decision-making process more manageable to provide quality services to the patients. For doctors to enhance safety health facilities, they require an in-depth understanding of all procedures undertaken in different treatment procedures. Managers can analyze the risks involved in the methods and continuously learn how to take necessary steps for prevention and improvement.^[31]

Moreover, experience based on the years the manager has served is also relevant in boosting patient safety. When a manager offers their services for a long time, they understand the dynamics of procedures undertaken in the institution. In addition, the manager can study and know the character and competency of each employee and the institution's overall ability to be competitive in providing quality services. However, most managers have not exceeded 10 years of service in their respective institutions. Managers who have been in their position for more than 10 years might develop favoritism towards junior officers at work, which may lead to safety concerns due to a lack of patient supervision.^[32]

Healthcare practitioners, particularly managers and supervisors, provide different managerial roles in their respective institutions. The results from Kumar^[22] show that participants were essential in understanding the management's priority in enhancing patient safety. The findings indicate that most managers frequently used leadership roles to ensure that patients visit safe health centers. Leadership roles ensure that the manager works effectively with subordinates to provide a safe patient environment. Therefore, most managers focus on rela-

tionship building with the management team and employees. They have realized that with team spirit, the job will be accomplished effectively and meet high safety standards.^[22]

Healthcare institutions, like any other businesses, face various risks. Some significant threats include inflation, increased interest rates, and security risks. Managers must be able to handle such situations and return the organization to effective and sustainable operations. Therefore, risk management has become one of the primary causes of concern for most administrators. Based on the results obtained from the managers, 70% of them considered handling risks as one of their typical daily routines. Safety in hospitals and health institutions is paramount because most patients are in a vulnerable condition, where people around might take advantage of them. Figurehead and spokesperson roles were the least used in the health centers because most of the work had been done in the leadership role. Health center managers concentrate on an issue that emphasizes effective service delivery and high safety and hospitality for their patients.^[2]

The use of power by managers is essential in ensuring that all organizational activities are running smoothly. The research results from Weisfeld^[23] show that managers use different types of controls to manage their institutions. However, the findings have indicated that some powers are more prevalent than others. For example, the results showed that while most managers prefer using information power, coercive power was favored the least. Information is one of the critical elements for a successful manager. Using information power, most managers must undertake intensive research before making significant decisions within their jurisdiction. By using information power, most managers are not only able to make effective decisions but also keep updated. They can analyze the organization's key strengths and weaknesses compared with its competitors in the market.^[23]

In the current study, the relationship between safety culture and the attitude of managers in healthcare is the primary research focus. Based on our study's findings, most of the respondents agreed that safety was imperative for patients and people working in a shared environment. More than 98% of respondents indicated their interest in upholding safety measures as part of organizational culture. On the other hand, there was a mixed reaction whether shortcuts should be part of handling emergencies as far as patient safety is concerned. By upholding such a strategy, doctors and other health professionals are prone to make mistakes that might be costly to patients' lives. These findings are consistent with the those from similar research that showed patient satisfaction should be paramount and of great concern to administrators in a healthcare institution. Most hospitals suffer from a lack of interest in patients' concerns and lack of following proper proce-dures. The study from Hertel et al^[33] showed that employee motivation through engaging them in critical decision-making procedures was vital in improving the quality of service and avoiding situations that might jeopardize patient safety.

Recommendations

To handle management activities, it is important to choose the right person for the right position. Managerial jobs should not be based on racial or cultural values but on the level of experience and professionalism. Another necessary recommendation for enhancing safety standards in an organization from a management point of view is having mixed age groups in different managerial positions. Hiring older managers (aged 45 to 60) is important because they act as role models and sources of guidance for the upcoming leaders. Additionally, hiring younger managers (aged 31 to 40) can be useful because they come with fresh knowledge and updated means of enhancing safety in the health sector. Compared with older managers, younger managers have access to a broader range of information and improved technology, which can be implemented to improve patient safety.

Before entrusting managers with handling issues regarding patient safety and general managerial roles, it is essential to check their educational background. It is commendable to use managers that fall within organization's profession. When seeking managers to handle a health institution and its safety measures, hiring a manager with a solid background in health-related specialties and safety maintenance in health institutions is necessary. Moreover, health facilities can invest in ensuring that their managers and employees recognize potential emergencies and how to handle them effectively.

CONCLUSION

The managerial choices at ACH are based on the culture and tradition of the community, which might undermine the capability of other individuals handling the same responsibilities based on their educational backgrounds and competency. Those who suboptimally fulfilled their managerial roles among middle-level healthcare managers at ACH included being a resource allocator, a negotiator, a liaison, a spokesperson, a figurehead, and an entrepreneur.

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Data Availability

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

References

- 1. Graban M. Lean Hospitals: Improving Quality, Patient Safety, and Employee Engagement. 3rd ed. CRC Press; 2016.
- Rafique M, Hameed S, Agha MH. Commonality, conflict, and absorptive capacity: clarifying middle manager roles in the pharmaceutical industry. *Manag Dec.* 2018;56:1904– 1916.
- 3. Cummings GG, MacGregor T, Davey M, et al. Leadership styles and outcome patterns for the nursing workforce and work environment: a systematic review. *Int J Nurs Stud.* 2010;47:363–385.
- 4. De Las Heras-Alonso ME, Aranaz-Andrés JM. Primum non nocere or how to create a culture of patient safety. *Actas Dermosifiliogr.* 2016;107:269–274.
- 5. Cherry B, Jacob SR. *Contemporary Nursing: Issues, Trends, & Management*. Elsevier Health Sciences; 2016.
- 6. Darkins A, Ryan P, Kobb R, et al. Care coordination/home telehealth: the systematic implementation of health informatics, home telehealth, and disease management to support the care of veteran patients with chronic conditions. *Telemed J E Health.* 2008;14:1118–1126.
- Urden LD, Stacy KM, Lough ME. Critical Care Nursing—E-Book: Diagnosis and Management. 9th ed. Elsevier Health Sciences; 2017.
- 8. Jha AK, Prasopa-Plaizier N, Larizgoitia IA, Bates DW. Patient safety research: an overview of the global evidence. *Qual Saf Health Care.* 2010;19:42–47.
- 9. Alahmadi HA. Assessment of patient safety culture in Saudi Arabian hospitals. *Qual Saf Health Care*. 2010;19:e17.
- Elsheikh AM, AlShareef MA, Saleh BS, El-Tawansi MA. Assessment of patient safety culture: a comparative case study between physicians and nurses. *Bus Process Manag J*. 2017;23:792–810.
- 11. Sorra J, Nieva V, Fastman BR, et al. Staff attitudes about event reporting and patient safety culture in hospital transfusion services. *Transfusion*. 2008;48:1934–1942.
- 12. Elmontsri M, Almashrafi A, Banarsee R, Majeed A. Status of patient safety culture in Arab countries: a systematic review. *BMJ Open*. 2017;7:e013487.
- 13. Carayon P, Wetterneck TB, Rivera-Rodriguez AJ, et al. Human factors systems approach to healthcare quality and patient safety. *Appl Ergon*. 2014;45:14–25.
- 14. Aljadhey H, Al-Babtain B, Mahmoud MA, Alaqeel S, Ahmed Y. Culture of safety among nurses in a tertiary teaching hospital in Saudi Arabia. *Trop J Pharm Res*. 2016;15:639–644.
- 15. Alswat K, Abdalla RA, Titi MA, et al. Improving patient safety culture in Saudi Arabia (2012–2015): trending, improvement and benchmarking. *BMC Health Serv Res.* 2017;17:1–4.
- 16. Walston SL, Al-Omar BA, Al-Mutari FA. Factors affecting the climate of hospital patient safety: a study of hospitals in Saudi Arabia. *Int J Health Qual Assur.* 2010;23:35–50.
- 17. Ministry of Health (MOH). MOH News Al-Rabiah Inaugurates Saudi Center for Patient Safety. 2017. Accessed Aug 27, 2019. www.moh.gov.sa/en/Ministry/ MediaCenter/News/Pages/News-2017-03-19-003.aspx
- Saudi Patient Safety Center (SPSC). The Saudi Patient Safety Center at glance. 2018. Accessed Sep 3, 2019spsc. gov.sa/English/Pages/SPSC-At-A-Glance.aspx
- 19. Alhawassi TM, Abuelizz HA, Almetwazi M, et al. Advancing pharmaceuticals and patient safety in Saudi Arabia: a 2030 vision initiative. *Saudi Pharm J*. 2018;26:71–74.

- 20. Bondevik GT, Hofoss D, Husebø BS, Deilkås ECT. The safety attitudes questionnaire ambulatory version: psychometric properties of the Norwegian version for nursing homes. *BMC Health Serv Res.* 2019;19:423.
- Stoyanova R, Dimova R, Tornyova B, Mavrov M, Elkova H. Perception of patient safety culture among hospital staff. *Zdr Varst.* 2021;60:97–104.
- 22. Kumar P. An analytical study on Mintzberg's framework: managerial roles. *Int J Res Manage Bus Stud.* 2015;2:12–19.
- 23. Weisfeld VD. Jonas and Kovner's Health Care Delivery in the United States. Springer Publishing Company, LLC; 2011.
- 24. Raven BH. The comparative analysis of power and power preference. In: Tedeschi JT, ed. *Social Power and Political Influence*. Routledge; 2017:172–198.
- 25. Boerrigter CM. How leader's age is related to leader effectiveness: through leader's affective state and leadership behavior [thesis]. Enschede, the Netherlands: University of Twente; 2015.
- 26. De Regge M. Managing a changing health care environment: aligning hospital processes to the nature of care [dissertation]. Ghent, Belgium: Ghent University; 2015.

- 27. Egener BE, Mason DJ, McDonald WJ, et al. The charter on professionalism for health care organizations. *Acad Med*. 2017;92:1091.
- 28. Rausch E, Elmuti D, Minnis W, Abebe M. Does education have a role in developing leadership skills? *Manag Dec.* 2005;43:1018–1031.
- 29. Kalargyrou V, Pescosolido AT, Kalargiros EA. Leadership skills in management education. *Acad Educ Leadersh J*. 2012;16:39.
- 30. Pearson CAL, Chatterjee SR. Managerial work roles in Asia. *J Manag Dev.* 2003;22:694–707.
- 31. Jackson T. Building the 'continuous learning' healthcare system. *Health Inf Manag.* 2014;43:4–5.
- 32. Thornton RD, Nurse N, Snavely L, et al. Influences on patient satisfaction in healthcare centers: a semi-quantitative study over 5 years. *BMC Health Serv Res*. 2017;17:361.
- 33. Hertel G, Rauschenbach C, Thielgen MM, Krumm S. Are older workers more active copers? Longitudinal effects of age-contingent coping on strain at work. *J Organ Behav.* 2015;36:514–537.