Assessment of patient safety culture in tertiary health care settings in Taif City, Saudi Arabia

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Abstract

Background: A limited amount of data exists about patient safety culture in Saudi Arabia, however the healthcare organizations in Saudi Arabia are assessing patient safety guides to identify opportunities for improvement.

Objectives: The purpose of this study is to evaluate the culture of patient safety in Saudi hospitals and to improve patient safety and quality of care through implementation of safety systems and creating a culture of safety.

Methods: The Hospital Survey on Patient Safety Culture questionnaire was used to identify dimensions of patient safety culture. The survey questionnaire was distributed in Al-Hada general hospital in Taif city, Saudi Arabia, to 300 health professionals including nurses, technicians, managers and medical staff.

Results: The overall positive responses from the participants ranged from 36.18-82%, where the positive responses were more than the negative. Most of the participants had positive responses about communication, feedback about errors, and the procedure and system at preventing errors, however they reported that there are still many patient safety problems in hospital units. The staffing level in hospital units was not enough but there was good cooperation between hospital units, and they reported that the supervisor/manager has an important role in improving patient safety.

Conclusion: The study calls for the need for increasing attention to patient safety and efforts to improve the performance and quality of service.

Key words: assessment, patient, safety, culture, tertiary, Saudi Arabia

Introduction

According to (Mitchell 2008), patient safety is the prevention of adverse events to patients with stress on the system of care delivery that prevents errors and learning from errors that occur within the building and of a safety culture involving patients, health care workers, and organizations (1).

In patient care, it is crucial to assess patient safety guides to identify chances for improvement and to create a starting point for evaluating future improvement efforts (1). In order to achieve this, health care providers should integrate quality and safety into their organization to guarantee proper clinical and administrative practices (1).

Patient safety is a very important component in the culture of any health care organization, and assessment of the healthcare organization's patient safety culture will be the first step for developing a strong safety culture (3). This assessment will improve the quality of health care by identifying areas affecting the patient's safety, and without this assessment health care costs and unexpected patient care new risks will increase (4).

To achieve a successful culture of patient safety in any health care organization, the values and beliefs about what is important in an organization should be understood (5). In addition, executive commitment, effective communication, enthusiastic resources and shared trust by all organizational members should be present in creating a positive patient safety climate inside the organization (3).

Effective hospital employees' communication is vital to achieve patient safety, as communication helps in decision making, treatment planning, and solving problems related to patient care (2). Patient safety will be achieved when all methods of communication are properly used to create a patient safety climate for staff and patients (2).

Dimensions of safety culture are related to several health care outcomes such as medication errors, nurse back injuries, urinary tract infections, patient satisfaction, patients' perceptions of nurse responsiveness and nurse satisfaction (6). Currently some international accreditation organizations necessitate determining the patient safety culture to evaluate the healthcare providers' perception of teamwork, actions taken by management and leadership to support and endorse patient safety, and frequency of event reporting (7).

Better perception about patient safety was associated with higher scores on teamwork within hospital units, organizational learning and continuous improvement, manager' expectations and actions promoting safety, non-punitive response to error, hospital management support for patient safety, and hospital handoffs and transitions (8).

The Hospital Survey on Patient Safety Culture (HSOPSC) is a widely used tool for assessment of patient safety culture (9). A number of studies have been done to assess patient safety culture in health care organizations, using the HSOPSC tool, such as studies done outside Saudi Arabia in Ethiopia (10), Palestine (11) and Kuwait (12), in addition to studies done inside Saudi Arabia (13).
Our study aimed to assess staff awareness regarding patient safety culture in one of the Saudi tertiary care hospitals.

Methods

Study Design and time frame:
A cross-sectional study was done on medical staff in AL-Hada hospital, Taif city, KSA, over one month from July to August 2018.

Sampling methodology:
The hospital community of (AL-Hada armed forces hospital, Taif city) was the sampling frame. The inclusion criteria were all hospital workers (physicians, nurses, pharmacist, dietician, unit assistant /clerk/secretary, Respiratory therapist, physical occupational or speech therapist, technician (e.g. EKG, lab, radiology), administration/ management), and the exclusion criteria was workers who refused to participate in the study. The human resources office of the hospital reported that there are 300 workers in the hospital. All intended hospital staff were contacted, and the response rate was 66.3% and the total number of participants was 199 persons.

The head of every department was contacted to encourage staff to participate in the study.. All of them were contacted at their work place.

Study instrument:
The patient safety culture was measured by the response of health care workers to The Hospital Survey on Patient Safety Culture (HSOPSC) questionnaire and the percentages of the positive responses were assessed.

The HSOPSC measures 12 composites of patient safety culture that include several predictors of patient safety culture (9). The HSOPSC asks the respondents to give their work area a patient safety score and to answer a question on the number of events reported in the past 12 months. [9] The HSOPSC survey contains questions about Communication, openness, feedback and communication about error, frequency of event reported, handoffs and transitions, management support of patient safety, non-punitive responses to error, organizational learning-continuous improvement, overall perception of patient safety, staffing, supervisor/manager expectations promoting patient safety, teamwork across units, teamwork within units.

The questionnaire was in the English language and items were used to collect data about patient safety culture from similar national and international studies [10,11,12,13,14].

Ethical Considerations:
The study was reviewed and approved by the Research Ethics Committee of Taif University and from the director

of AL-Hada hospital. Verbal consents were obtained from all participants before participating in the study.

Statistical analysis:
Data were coded, tabulated and analyzed using (SPSS) version 20. Qualitative data was expressed as numbers and percentages, and a p-value of <0.05 was considered as statistically significant.

Results

Table 1 shows the background characteristics of the study participants. Healthcare professionals who responded to the survey were mainly from pharmacy (16.1%), surgical department (16.1%) and ICU (10.6%). The participants worked in a variety of hospital units such as medicine department (10.1%), pediatric (7.5%), obstetrics (4.5%), laboratory (8.5%), rehabilitation (5%) and radiology department (3.5%). Of the respondents (30.2%) had 1-5 years of professional experience, (45%) had worked 1-5 years in the current work unit, and (76.4%) worked 40-59 hours per week.

Table 2 shows that the responses to the survey in the sections of (the Supervisor/manager or the person whom you directly report to and facility that he/she works in) had an overall positive response that ranged from 36.18 - 82%, and the positive responses were more than negative.

Table 3 shows that the positive overall responses of participants to the survey in the section of communication, ranged from 40.7 - 71.3%.

Table 4 shows the responses of the participants to the section of teamwork within units/Staffing. The overall positive responses of these items ranged from 4.5 - 74.8% which meant that positive responses were more than the negative responses.

Table 5 shows that the positive responses to the following items were as follows: (mistake is made, but is noted and corrected before affecting the patient; how often is this reported which show a positive response) (71.8%), (when we asked about when a mistake is made, but has no potential to harm the patient, how often is this reported which showed a positive response) (72.3%), and when we asked about if a mistake is made that could harm the patient, but does not, how often is this reported, which showed a response of (75.8%). This means that the positive responses of events reported were more than negative responses.

Discussion

In the present study, in all sections the overall positive responses to all survey items ranged from 36.18 - 82%, and the positive responses were more than the negative. This result is in agreement with that revealed from other studies. One of these studies was done in a Saudi Arabian hospital in 2010 (13) , and the other was done in Ethiopia in 2016. (10). On the other hand, another study done in Saudi Arabia showed that the average of positive responses ranged from (19-76%) (13). In the study done in Ethiopia (10), the overall positive responses to items of patient safety culture was lower than the percentage of positive responses observed in the present study.

The present work showed that most of the participants have positive responses about communication and feedback about errors that ranged from 40.7-71.3%, a result that is similar to that observed in an earlier study conducted in Saudi Arabia (13). In this study (13) the percentage of the positive responses ranged from 22-70%. The percentage of positive responses about communication and feedback reported by participants in the present study is higher than that reported in a study done in Palestine (11), where the percentage of the positive responses was (36%).

The result of the present study showed that the respondents reported that the procedure and system are good at preventing errors from happening but still there are a lot of patient safety problems in the hospital unit. The same result was reported in the previous Saudi study (13).

Our findings show that the staff in hospital units was not sufficient as reported by the participants; however, in the study done in 2010 in Saudi Arabia the participants reported that the staffing level was sufficient in each unit (13).

The results of the current work confirms the findings of the previous Saudi study (13), where the participants reported that the supervisor/ manager has an important role in improving patient safety.

Our results also showed that there is a good cooperation between hospital units; a result that is in agreement with the previous Saudi study (13). Regarding the frequency of events reported, their percentage was higher than in our study (71-75%) when compared to the previous Saudi study (13), where the percentage of events reported ranged from 59.4 - 61%.

Limitations

Limitations of this study were lack of funding and the small sample size, so its result cannot be generalized. Using a self-reported questionnaire had the possibility of recall bias. The present study was a single centered study which is a third limitation that impairs generalization of results.

Conclusion

This study gives a comprehensive assessment of patient safety in one of the tertiary hospitals in Taif city. Results show increased attention to patient safety and efforts to improve the performance and quality of service. However, there are several areas that need to be improved including communication openness, error reporting, leadership and teamwork across hospital units. The survey should be repeated after application of proper interventions to monitor improvement in the culture of patient safety in this hospital and other hospitals in Taif city.

Table 1: Background characteristics of the study respondents

Variable	frequency	percent
Position:		
Many different units	15	7.5
Medicine	20	10.1
Surgery	32	16.1
Obstetrics	9	4.5
Pediatrics	15	7.5
ICU	21	10.6
Rehabilitation	10	5.0
Pharmacy	32	16.1
Laboratory	17	8..5
Radiology	7	35
Other	21	10.6
Hospital experience (years)		
Less than 1 year	41	20.6
1-5 years	81	40.7
6-10 years	44	22.1
11-15 years	18	9.0
16-20 years	8	4.0
21 or more years	7	3.5
Professional experience (years)		
Less than1 year	31	15.6
1-5 years	60	30.2
6-10 years	42	21.1
11-15 years	26	13.1
16-20 years	17	8.5
21 or more years	22	11.1
Work unit experience (years)		
Less than 1 year	45	22.6
1-5 years	91	45.7
6-10 years	35	17.6
11-15 years	19	9.5
16-20 years	3	1.5
21 or more years	6	3.0
Working hours per week		
Less than 20	8	4.0
20-39	13	6.5
40-59	152	76.4
60-79	16	8.0
80-99	5	2.5
100 or more	4	2.0

Table 2: Participants' responses to survey items

Variable	Strongly disagree	Disagree	Neither	Agree	Strongly agree	Average positive response %
1-Important patient care information is often lost during shift changes.	28	80	49	38	4	54.2%
2-Shift changes are problematic for patients in this hospital	19	80	61	33	6	49.7%
3- It is often unpleasant to work with staff from other hospital units	20	73	59	44	3	46.7%
4- Whenever pressure builds up, my supervisor/manager wants us to work faster, even if it means taking shortcuts.	10	62	62	48	17	36.18%
5- Things "fall between the cracks" when transferring patients from one unit to another .	21	53	74	45	6	37.18%
6- Units in this facility do not coordinate well with each other.	18	68	57	45	11	43%
7- My supervisor/manager overlooks patient safety problems that happen over and over.	13	30	39	86	31	58.7%
8- Management in this facility seems interested in patient safety only after an adverse event happens.	16	56	62	47	18	36.18%
9- Problems often occur in the exchange of information across units in this facility.	11	75	63	45	5	43.2%
10-People support one another in this unit	6	3	30	115	45	80.4%
11-My supervisor/manager says a good word when he/she sees a job done according to established patient safety procedure	7	11	28	109	44	76.8%
12-When a lot of work needs to be done	3	5	27	118	46	82.4%

Table 3: Participants' responses to patient safety culture composites

Variable	never	rarely	sometimes	most of the time	always	Average positive response
1- Staff are afraid to ask questions when something does not seem right	30	64	61	33	11	47.2%
2- Staff feel free to question the decisions or actions of those with more authority	20	35	63	59	22	40.7%
3- We are given feedback about changes put into place based on event reports.	4	16	81	61	37	49.2%
4-Staff will freely speak up if they see something that may negatively affect patient care.	3	13	60	74	49	61.8%
5-We are informed about errors that happen in this unit.	6	12	49	82	50	66.3%
6-In this unit, we discuss ways to prevent errors from happening again.	4	9	44	83	59	71.3%

Table 4: Participants' responses to teamwork within units/Staffing items

Patient safety culture composites	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Average % positive response
1-Our procedures and systems are good at preventing errors from happening	4	8	44	101	42	71.8%
2- We have patient safety problems in this unit	2	7	28	104	58	4.5%
3- Management in this facility provides a work climate that promotes patient safety	3	7	41	120	27	73.8%
4- We have enough staff to handle the workload	37	58	34	57	13	35.17%
5- My supervisor/manager seriously considers staff suggestions for improving patient safety	3	10	37	109	40	74.8%
6- There is good cooperation among units that need to work together	5	19	52	101	22	61.8%
7- The actions of management in this facility show that patient safety is a top priority	4	15	38	89	53	71.3%
8- Units in this facility work well together to provide the best care for patients.	4	8	43	105	39	72.3%

Table 5: Participants' responses to frequency of events reported

Frequency of event reported	Never	Rarely	Sometimes	Most of the time	Always	Average % positive response
1- When a mistake is made, but is caught and corrected before affecting the patient, how often is this reported?	4	16	36	82	61	71.8%
2- When a mistake is made, but has no potential to harm the patient, how often is this reported?	1	21	33	80	64	72.36%
3- When a mistake is made that could harm the patient, but does not, how often is this reported?	6	10	32	71	80	75.8%

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Conflicts of interest: none

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