

**Assessment of Patient Safety Culture
in Benghazi Children's Hospital
[BCH]**

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Abstract

The issue of patient safety has received significant consideration from health policy-makers worldwide. Some studies carried out in some developed countries suggest that one in ten patients admitted to hospital suffers an adverse event. Various adverse events will be inevitable complications of treatment but at least half of these events are thought to be preventable. Although patient safety is a global issue affecting countries, all development levels that the size of the problem estimates are inadequate, particularly in developing countries. This study aims at measuring the patient safety culture in Benghazi Children's Hospital and to suggest a set of recommendations that could contribute to the increased interest in the culture of patient safety in the hospital. A quantitative research study (cross-sectional, descriptive study) is designed, using the Hospital Survey of Patient Safety Culture (HSOPSC) developed by the US Agency for Health Care Research and Quality. The study was conducted from December 2016 until the end of 2017. The participants included health care workers who were working as doctors, nurses, technicians, pharmacists, managers and administrative staff at the hospital with direct and indirect contact with the patient. The results indicate that the average of positive response of the patient safety dimensions ranged from the lower rating of 10%, for the dimension of feedback and communication about error, to the highest of 68 % for error and teamwork within units. The overall perception of safety and managers' expectations dimensions are almost the same with 33 % and 32% respectively. Moreover, communication openness was low with 11 %. The findings indicated that the current state of patient safety culture in Benghazi Children's Hospital is very weak and there is a need for development of safety practice. Patient safety culture still has many areas for improvement that need continuous evaluation and monitoring to attain a safe environment both for patients and health-care providers.

Keyword: patient safety culture, assessment, measuring staff health care, healthcare providers, adverse event.

Introduction

The issue of patient safety has received considerable attention from health policy - makers and health stakeholders worldwide.⁽¹⁾ According to the Institute of Medicine (IOM) report "To Err Is Human," as many as 98 thousand people die in the United State hospitals every year as a result of medical mistakes that could have been prevented.⁽¹⁾ A number of studies carried out in Australia and America suggest that one in ten patients admitted to hospital suffers an adverse event. Currently, some adverse events will be inevitable complications of treatment, but at least half of these events are thought to be preventable.⁽²⁾ Besides, the number of legal cases related to medical errors has increased from 896 cases in 2005 to 1356 cases in 2008, an increase of 51.3%.^(3,4) The World Health Organization (WHO) states that in developed countries, patients are exposed to risk while receiving health care in hospitals, and this exposure is higher in hospitals of developing countries than in that of industrialized countries.⁽¹⁾ Although patient safety is a global issue affecting countries, all development levels that the size of the problem estimates are limited, particularly in developing and transitional countries.⁽⁴⁾

An unsafe medical care is a main source of morbidity and mortality throughout the world.⁽¹⁾ Attempts to reduce these injuries and harms have led to the patient safety movement. For instance, World Alliance for Patient Safety including the Pan American Health Organization (PAHO) and other agencies have already developed strategies to intervene on this issue, proposing plans and legislation on the subject.⁽¹⁾ Also some healthcare organizations began the process of improving the widespread deficits in patient safety, including a focus on organizational and patient safety culture.⁽⁵⁾ The culture of an organization is the demonstration of understanding objectives and criteria of behavior that are portioned out by its members and their environment.⁽⁶⁾ A culture is not unchanging, but rather is the product of dynamic interactions between the different elements within an organization.

Patient safety is defined as "the prevention of harm to patients with a focus on care system, which is trying to avoid and prevent mistakes, learn from errors that occur."⁽⁷⁾ Patient safety is considered a critical component of the quality of health care.⁽⁸⁾ The researchers believed that the accomplishment of a culture safety requires an understanding of the values, beliefs and norms about what is important in the organization and what attitudes and behaviors concerning the safety of the patient is expected and appropriate.⁽⁸⁾

The essential components of an effective safety culture include leaders and engaging all staffs in ongoing safety programs and strategies through communication, training and incentives with high

industries reporting that working together gave effectiveness in the whole organization. ⁽⁵⁾

A number of international organizations suggest that organizations can decrease accidents and incidents of safety through the growth of a "positive safety culture." A positive safety culture in health institutions is emerging as one of the important requirements to reduce the occurrence of adverse effects as much as possible by learning from errors proactively and to redesign the processes in order to eliminate mistakes. ^(9,4) As stated earlier, one aspect of patient safety that has been increasingly of interest is the culture of patient safety. To establish a safety culture in a healthcare organization, the first step is assessing the current culture. ⁽⁴⁾ Assessment of safety culture in a given organization helps inform the perceptions and behaviors of health staffs and administrators regarding safety as well as recognize the most problematic areas for improvement. ⁽⁵⁾

Statement of the Problem

In Libya, the health care system has suffered long periods of neglect, poor support, poor financial backing, and lack of development and modernization programmes. The problem was further complicated during and after the Libyan revolution in 2011. ⁽¹⁰⁾

Despite the rising emphasis on patient safety and the wealth of evidence published on patient safety culture in recent years, there is inadequate literature on this issue in the Arab World and in Libya, in particular. ⁽⁸⁾

Such recent studies data from the Arabic context provide a strong indication of the risk to patients in the hospital environment and the importance of studying patient safety culture in Arab hospitals. However, there is little empirical study into the safety aspects of health care in Libya. ⁽¹¹⁾

In fact, a recent published report shows that the present Libyan health care system needs to be improved as it is not operating well and does not provide good quality of health care. The report outlined specific significant negative issues that show that the Libyan system does not meet Libyan patients' health care needs. ⁽¹¹⁾

Research Questions and Objectives

The study aims at answering the following research questions:

- ❖ What is the current patient safety culture in Benghazi Children's Hospital?
- ❖ What is the level of patient safety culture in Benghazi Children Hospital?

The research questions can be broken down into these objectives:

- To measure the patient safety culture in Benghazi Children Hospital.
- To evaluate the perception of patient safety culture amongst health care workers.
- To suggest a set of recommendations that could contribute to the increased interest in the culture of patient safety in the hospital.

Importance of the Study

- ❑ The results of this study will provide data and information about the level of awareness and understanding of health workers and management staff about the safety culture of the patient in hospital, which will have the desired effect in improving the quality of health care.
- ❑ This current study provided new knowledge adding to the current body of knowledge about the measure of patient safety culture in hospital and, more particularly, shed light on the patient safety culture in Libyan hospitals and managed to uncover matters and problems that have a bearing on patient safety in a Libyan environment.
- ❑ The findings from this work may encourage stakeholders to reformulate the plans, suggest new goals and prepare new strategies and specific policies for improving the quality of care and patient safety. Additionally, the purpose of the present study is to help carry out and promote further research from other researchers to implement HSOSPC in different hospitals in Libya.

Materials and Methods

Study Design: This study is a descriptive cross sectional one conducted in Benghazi Children`s Hospital in Benghazi from December 2016 until the end of 2017 to assess health staff's awareness levels on patient safety with an objective to measure the Safety Culture Dimensions.

Setting: The sample for the research was recruited from Benghazi Children`s Hospital. It consists of a general hospital, bone Department, Department of Hematology, Nephrology, Surgery, Intensive Care and primary care clinics with a total of 350 beds.

Population: The target population was health care, allied health care professional staff, and administrative staff in Benghazi

Children`s Hospital. The hospital staff include clinical and non-clinical staff with direct contact with patients, including physicians and nurses, in addition to staff without direct contact with patients, but whose work directly affects patient care, including paramedical and support services, as well as hospital managers and supervisors.

Sample Size: The total number of health-care providers working at Benghazi Children`s Hospital was (N:585).A representative sample of health-care providers from different job categories in the selected units —physicians, nurses, pharmacists, technicians, and laborers— we reenrolled in this study after giving their approval for participation. The sample size was estimated to be (S:234) health-care providers. This sample size is based on a 0.05 margin of error and a 95% confidence interval. A Purposive sampling methodology was used to recruit staff working in the hospital. Attempts to reduce the limitation of the sampling method and to increase appropriate representation was made to ensure the inclusion of a wide range of health providers across the hospital. For example, the surveys were distributed to all of the patient care units across the hospital and to different shifts. The response rate in this study is (79%).

Data Collection

Survey Instrument: The Hospital Survey on Patient Safety Culture (HSOPSC) instrument was used to measure patient safety culture in hospital. This survey is a self-administered tool developed by the US Agency for Healthcare Research and Quality (AHRQ). HSOPSC is designed to assess the patient safety culture of a healthcare organization as a whole or to assess units within the hospital. HSOPSC consists of 42 questions and measures 14 dimensions. ⁽¹²⁾It is the most popular data collection instrument in patient safety culture in hospitals. ^(13,14) The questionnaire has been translated into around 20 different language sand is currently used in over 30 countries. Moreover, it had been translated into Arabic and used in a number of Arab countries to assess the perception of patient safety culture among health care workers. ^(15,16,17) HSOPSC was pilot tested on 1,437 hospital employees from 21 hospitals in the United States. The survey items are measured on a 5-point Liker scale and ranged from (1)"Strongly Disagree" to (5) "Strongly Agree and take on average about 15 minutes to complete. Beside the 12 listed dimensions the survey includes an item that asks about the number of events reported the past 12 months. Participants are also asked to grade the patient safety in their work area on a five-point Liker scale ranging from "Excellent" to "Failing."

Reliability and Validity of the HSOPSC

The HSOPSC survey used in this study was considered to be valid as it had been piloted on 1,419 hospital employees from 20 hospitals

across the USA. The results showed that all 12 dimensions had high levels of reliability Cronbach's alpha ranging from 0.63 to 0.84. (12) Some researchers (14) evaluated the reliability and validity of the Arabic version by collected and analyzed data from 13 Palestinian hospitals including 2,022 healthcare professionals. They acknowledged that the Arabic version had low internal consistency in some of its scales compared to the original survey or to other translated versions, such as those used in Turkey, England, Norway and Belgium. However, their study concluded that the Arabic version had good validity and acceptable reliability, with Cronbach's alpha ranging from 0.41 to 0.87, and that it was a suitable instrument to assess safety culture in hospitals in the Arabic speaking world.

Questionnaire Translation

The HSOPSC questionnaire has been translated from English into a number of languages including the Arabic language by an international user's network. (18) As the study was conducted in Libya (an Arabic country) where the first language of the participants is Arabic, the Arabic version of the questionnaire used by some researchers (18, 19) was adopted for the study.

Ethical Consideration

The researcher met with the quality manager and human resource director to explain the purpose and aims of the study. The investigator went to each department and unit at different time intervals that were mutually convenient for the staff. Participation in the study was voluntary, and the participants were anonymous. The survey cover letter outlined the purpose and importance of the survey. Participants were instructed not to place personal identifiers on the survey itself. Instructions on how to complete the survey were included at the top of the survey. Details of the individual responses were not able to be used to identify individual participants. Any publication of study will not include any information containing personal identifiers. The participants were not in any danger of physical/psychological risk or physical discomfort. They had the opportunity to contact the researcher for further information related to the results of the research. Completion and return of the survey was indicated as consent to participate in this research study.

Data Analysis

Each questionnaire was examined for accuracy and completeness and incomplete questionnaires were excluded from the data set. In order to analyze the data, a number of statistical methods were employed. Firstly, AHRQ guidelines introduced by AHRQ ⁽⁶⁾ were adopted for the analysis and interpretation of the perceptions of respondents in relation to composites for patient safety cultural dimensions.

Following this, the calculation was undertaken of the percent frequency of each questionnaire item and dimension, with higher scores reflecting attitudes towards patient safety that were more positive. The AHRQ guidelines ⁽²⁰⁾ define the strengths of patient safety dimensions as being reflected in items with a response rate of 75%, and those items and dimensions of 50% or less were considered as areas that required further attention and improvement. In addition, the SPSS programmer was used for data entry and analysis of the quantitative data. The data took the form of descriptive statistics (frequency of positive response and their percentages).

Findings

Background characteristics of the study participants are shown on Table (1) and Figure (1). The majority of health care workers who participated in the study were nurses (15.6%), physician assistants / nurse practitioners (14%), attending/staff physicians (13.5%), technicians and managers each comprised (6.5%) of the total sample, which is representative of the small numbers of professionals from these groups who are employed in the hospital. Specialists and patient care assistants had percentages of (7.5%) and (5.9%) respectively.

Table (1): Health Care Workers Characteristics

Health care workers	Frequency	Percentage
Registered Nurse	29	15.6
Physician Assistant/Nurse Practitioner	26	14.0
LVN/LPN	24	12.9
Patient Care Asst /Hospital Aide/Care Partner	11	5.9
Attending/Staff Physician	25	13.4

Resident Physician/Physician in Training	4	2.2
Pharmacist	6	3.2
Dietician	11	5.9
Unit Assistant/Clerk/Secretary	5	2.7
Respiratory Therapist	3	1.6
Physical, Occupational, or Speech Therapist	4	2.2
Technician (e.g., EKG, Lab, Radiology)	12	6.5
Administration/Management	12	6.5
. Others	14	7.5
Total	186	100.0

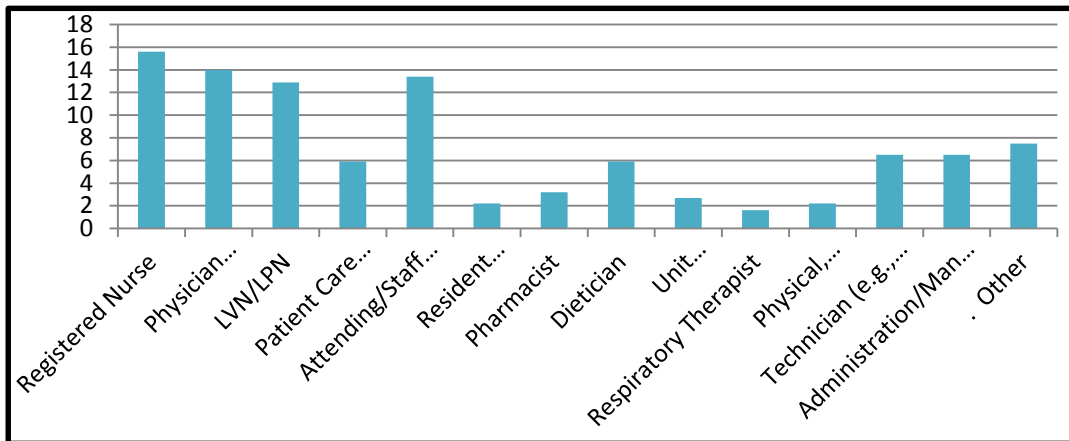


Figure (1): Health Care Workers Characteristics

Table (2) and Figure (2) give a breakdown of the work areas of the participants. The largest proportion of the participants worked in many different hospital units and departments with a percentage of (37.6%), while the lowest number of participants were from the Laboratory with (2.2 %). These percentages are to be expected since the other units employ the largest number of people whilst the Laboratory is relatively small area with a limited number of staff. The 'other' work areas which comprised 3.8% of the sample were from the Emergency, Surgery and Obstetrics departments with (7.0 %).

Table (2): Health Care Workers and Work Areas

Work area	Frequency	Percentage
Many different hospital units/No specific unit	70	37.6
Medicine (non-surgical)	21	11.3
Surgery	13	7.0
Obstetrics	13	7.0
Pediatrics	8	4.3
Emergency department	7	3.8
Intensive care unit (any type)	11	5.9

Psychiatry/mental health	16	8.6
Rehabilitation	15	8.1
Pharmacy	8	4.3
Laboratory	4	2.2
Total	186	100.0

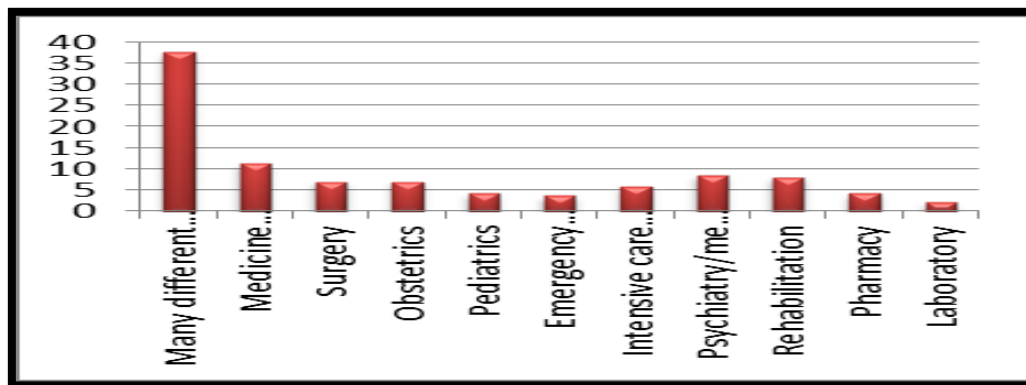


Figure (2): Health Care Workers and Work Areas

Patient Safety Culture Scores

The summarized composite scores on the 12 dimensions of patient safety culture (Table 3 and Figure 3) gives the average of the positive responses on each patient safety dimension which was measured by calculating the percentage of positive response on each item that is in the composite. The average of positive response of the patient safety dimensions ranged from the lower rating of 10%, for the dimension of Feedback and communication about Error, to the highest of 68 % for Teamwork within Units. The overall perception of safety and managers' expectations dimensions are almost the same with 33 % and 32% respectively. Moreover, communication openness was low with 11 %. Furthermore, Handoffs and Transition was 14.5%, Non- punitive Response to Error was very low with 16.3%.

Table (3): Percentage of the Positive Answers on the Patient Safety Culture Dimensions for All Participants

Dimension	Positive Response
1. Teamwork within Units	68%
2. Supervisor/Manager Expectation and action promoting patient safety	32%
3. Organizational Learning – Continuous Improvement	25%

4. Management Support for patient Safety:	14%
5. Overall perception of patient safety	33%
6. Feedback and communication about Error	10%
7. Communication Openness	11%
8. Frequency of Event Reported	13%
9. Teamwork Across Unit	41%
10. Staffing	27%
11. Handoffs and Transition	14.5%
12. Non-punitive Response to Error	16.3%

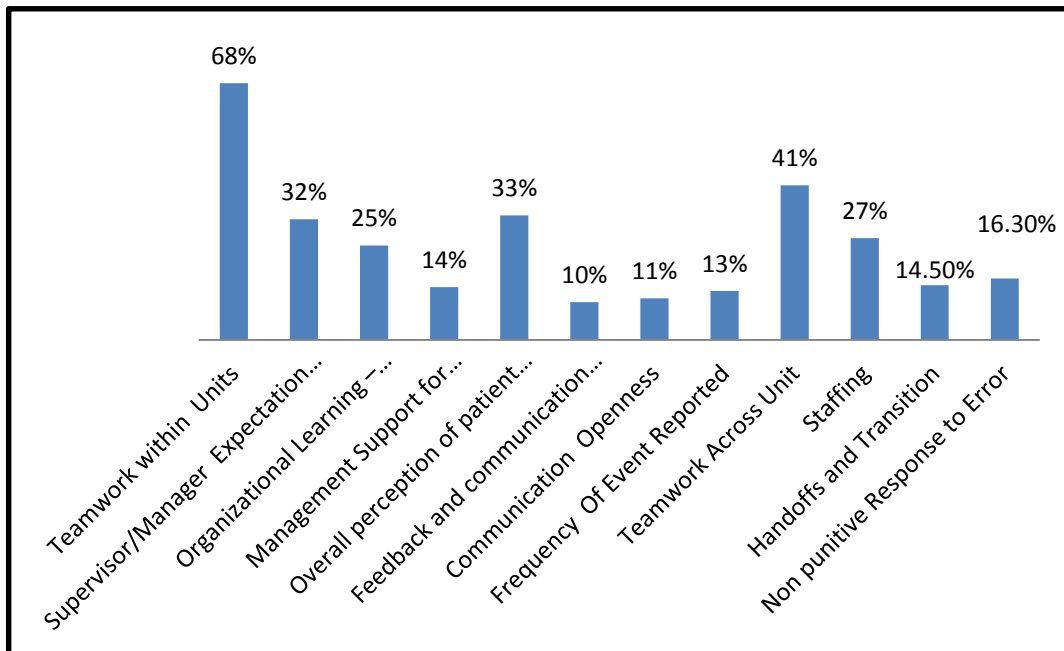


Figure (3): Percentage of the Positive Answers on the Patient Safety Culture Dimensions

Number of Events Reported

The survey has a specific question on the number of events related to patient safety filed by the participants during the year immediately prior to conducting the survey (Table 4 and Figure 4).

Table (4): Number of Reported Events

In the past 12 months, how many event reports have you filled out and submitted?		
	Frequency	Percent
1 to 2	117	62.9
3 to 5	67	36.0
6 to 10	2	1.1
Total	186	100.0

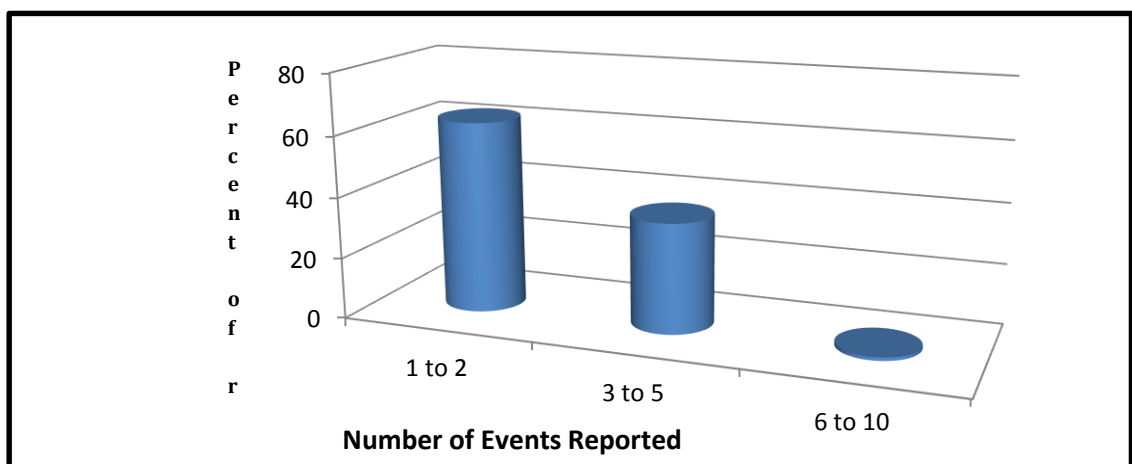


Figure (4): Number of Reported Events

Figure (4) gives more details of the number of events that were reported by health care workers in the previous 12 months. Responses to number of events reported showed very few reported events in the previous 12 months.

Patient Safety Grad

Figure (5) shows respondents' opinions towards the level of patient safety in their respective hospital. The majority 81 (43.5%) of respondents indicated that they perceived patient safety to be at an acceptable level, whereas 50 (26.5 %) of the respondents believed patient safety was at a very good level and 30 (16.1%) rated it as excellent. Between 19 (10.2%) and 6 (3.2%) respectively rated the safety levels in their hospitals as either poor or failing.



Figure (5): Patient Safety Grad

Discussion and Recommendations

Evaluating the patient safety culture is the principal step in improving the quality of health service provided to patients and to reducing errors in service providing. In the present study the researcher attempted to measure the current patient safety culture among health-care providers. The dimensions where the average was less than 50% need to be further improved upon in order to achieve a higher composite level average. The results of the present study indicated that the twelve dimensions related to patient safety culture in Benghazi Children's Hospital need to be improved except Teamwork within Units dimension.

These safety culture dimensions are potential areas for improvement but with prioritization; there are six safety dimensions with very low positivity and need to be considered of high priority focused areas. These are Feedback and communication about Error (10%) which is the worst safety dimension, communication openness (11%), frequency of event reporting (13%), Management Support for patient Safety (14%), Handoffs and Transition (14,5%), Non-punitive Response to Error (16.3%). The survey showed that only (10%) of participants answers were positive with regard to the delivery of feedback about patient safety problems; the majority of responses to the survey indicated that patient safety suggestions were not being used to modify the system in the hospital. In fact, this lack of feedback to health care staff could affect their enthusiasm to create patient safety reports in future, if they felt unsatisfied at a lack of awareness of a useful response to their previous reporting of medical mistake. The lack of feedback and communication about

errors in Libya could be because of health leaders not visiting hospital work areas very often and having lower levels of communication with their health care workers.

The two dimensions “non-punitive response to error and “frequency of event reporting seems to be closely related to each other as a result of the "blame and shame" culture where failure is punished or concealed, and people refuse to acknowledge that problems exist. Individuals will not be enthused to report the adverse events because of fear of punishment, the lack of error acknowledgement and obstruction of any possibility of learning from mistakes. These low dimensions are similar to the results of a similar study done in Turkey for 180 participants in 12 Public health centers, which showed that positivity of the frequency of event reporting was only(12%)compared to (13)% in the present study.⁽²¹⁾

There was a punitive and blame focused work environment in Benghazi Children’s Hospital when patient safety problems were reported, a punitive approach from health managers and a culture of blame towards health care providers were the actions most likely to unfold. These cultural and social barriers appear throughout many different Arabic health care setting as emphasized in studies conducted in Lebanon (El-Jardali),⁽²²⁾in Saudi Arabia (Alahmadi),⁽¹⁸⁾ and in Egypt (Aboul-Fotouh et al.).⁽²³⁾These studies used a questionnaire and involved different health care staff to assess their attitudes toward patient safety culture. The results of these three studies were similar in that they showed that health care workers had negative perceptions of the dimension of non-punitive response to errors in the work environment of their hospitals. As a result, staff tended to avoid reporting their mistakes because they were afraid they could lose their jobs or, at the very least, be subject to some form of disciplinary action (Mrayyam et al. and Alahmadi).⁽¹⁸⁾

The staffing is another lowest dimension as regards patient safety culture (positivity of only 27%) which indicates that staff is working under pressure. This percentage is close to a study on a 239-nursing staff in Iran which realized only (38%) positivity as regards staffing dimension.⁽²⁴⁾The survey findings shown that teamwork within Benghazi Children’s Hospital’s units had the highest average positive answers score of the patient safety culture dimensions with almost(68%).This means that people like to actively achieve and cooperate with their close partners in the same department or unit. Similarly, the score of teamwork within units documented in Saudi Arabia in King Fahd General Hospital and Ajjad Emergency Hospital on 5250 staff members revealed that the teamwork within units for patient safety has 84% positivity.⁽¹⁸⁾The highest positive perception was for the component of ‘Teamwork within units,’ however, the survey data found that teamwork across hospital departments was not effective. only (41%)showing a positive perception of teamwork cross hospital. It can be said that teamwork

was a dynamic process that depended on the social interactions between the staff rather than the adoption of a formal policy towards teamwork. This result is consistent with other Arabic studies conducted by Jindal et al. and Fotouh et al.,^(22,23) which used a questionnaire to measure patient safety culture in Arabic hospitals and showed that teamwork across hospitals achieved one of the lowest composite scores of patient safety culture dimension areas.

The possible reason for poor teamwork practice in Benghazi Children's Hospital is the lack of training programs for health care workers to work as a team. In addition, a lack of teamwork in practice could be relatively as a result of poor communication between the staff and weak leadership, and this may have discouraged health care staff from working together effectively as a team. The need for good leadership, with strong communication skills to impact upon teamwork amongst workers, was shown by the same studies above (ibid).

The overall positive mean response rate of the supervisor expectations and actions promoting patient safety dimension was only (32%). Findings from this current study also suggest that leaders may want to consider implementing strategies to explain and facilitate supervisor behaviors that encourage the health staff to report information about safety, and to contribute and participate in safety initiatives. The overall perception of patient safety culture amongst health care workers was weak and needed to be improved. The current survey data showed that only (33%) of health workers in the hospital had a positive overall perception of patient safety. The survey found that the arrangements and procedures in the hospital were not good at preventing medical errors from happening to the patients. This result is similar to a study conducted by Abou-Fotouh et al. ⁽²³⁾ in Egypt, which used the same questionnaire as the current study to assess the perception of patient safety culture amongst a sample of health care staff in a teaching hospital in Cairo. Aboul-Fotouh et al. ⁽²³⁾ found only 33.3 % of health care staff had a positive perception in relation to the overall safety culture, reflecting the poor state of patient safety practice and revealing a need for improved safety practice in Egypt.

The Egyptian study and the results of this Libyan study confirm that there are negative perceptions amongst health care workers and, hence, indicate a need for improved patient safety practice within the Arabic medical context in general. One of the main central reasons which resulted in a negative perception of patient safety culture in Benghazi Children's Hospital was the low level of support of hospital management for patient safety matters. The participants revealed negative perceptions about the level of support of the management in their hospital in relation to patient safety. The survey results showed that only (14%) of health care workers indicate that the administration of their hospital had a commitment to and active promotion and support of patient safety. It can be said

that Benghazi Children's Hospital management only tended to act after a patient safety error had happened. This result is confirmed by some studies, for instance, El Taguri et al.,⁽²⁵⁾ who highlighted that one of the significant weaknesses of the Libyan health care system was that it was managed by a crisis approach rather than through a risk management approach that reduced patient safety incidences in the first place.

From these results, it appears that the perception that there was a poor patient safety culture in Libyan hospitals could be attributed, at least partially, to a lack of concern for patient safety issues in the hospital management. These results were supported by Jha,⁽²⁴⁾ who states that there are various common factors that lead to poor safety practice in the health setting; one of these factors is that managers and healthcare staff are frequently more interested in individual accountability, rather than the improvement of a systems based approach to patient safety that can address latent factors that may be failing to avoid the happening of a mistake.

Recommendations

Overall, the study shows that the current state of patient safety culture in Benghazi Children's Hospital is very weak and there is a necessity for improvement to the safety practice and for promotion of this important issue amongst those health care workers and health managers working at the frontline of health care service. Therefore, a number of recommendations are suggested to contribute to improved patient safety culture in the children's hospital in Benghazi:

- ❑ It is important to create national health care standards to be adopted by all health care services to guarantee that patients receive a safe and reliable level of quality of health care.
- ❑ Hospital Management should set patient safety as a centrally essential issue in their strategies and decisions.
- ❑ Hospitals should create effective clinical protocols in all departments to guarantee that health care staff follow clinical guidelines that lead to reducing risks and harms.
- ❑ It is essential to develop and improve training policy in hospitals for health care staff.
- ❑ It is highly recommended that hospitals raise the level of awareness of health care workers regarding patient safety culture through conducting training, workshops and conferences on patient safety.

Conclusion

Several patient safety researchers agree that the assessment of patient safety culture of health care professionals is an important diagnostic tool that can be used as a first step in improving and increasing the awareness of patient safety practice in health care settings. Therefore, the aim of the study was to assess the current patient safety culture in Benghazi Children's Hospital. The findings from this study indicated that patient safety culture in Benghazi Children's Hospital is very weak. Well-designed patient safety initiatives in hospital service based on systematic interventions are needed to be integrated with organizational policies. The findings of this study, which signposted the absence of a patient safety culture within hospital management and a lack of support from health managers themselves, are considered weak areas that need improvement. The lack of support for patient safety in the hospital could be also a result of lack of effective communication in hospital and insufficient staff number in the hospital to deliver right and adequate health care to the patients. In conclusion, it is hoped that this study will make a valuable impact on the present state of Libya's patient safety culture by realizing the level of patient safety culture and the problems that threaten patients in the Benghazi Children's Hospital. The study provides new evidence to Libyan health policymakers; and thus, the results and recommendations of the study can be useful in reviewing and improving patient safety.

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