Emergency Medicine Residents Perception About Patient Safety Culture

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Abstract: Patient safety is considered as a core component of quality in healthcare services. Accordingly, in this study the perception of emergency medicine residents about patient safety was evaluated. This cross-sectional study was conducted to assess the culture of patient safety among 29 consecutive subjects including medical residents in emergency medicine field in Ahwaz Jundishapur University of Medical Sciences, Southwestern Iran. Data was collected by Hospital Survey on Patient Safety Culture (HSOPSC) questionnaire designed by the Agency for Healthcare Research and Quality (AHRQ). The overall percentage of positive responses was 75.9%. The percentage of positive responses was highest for ‘management support for patient safety’ (89.7%) and ‘communication openness’ (75.9%) and lowest was for ‘non-punitive responses to the error’ (13.8%) and ‘frequency of events reported’ (24.1%). Totally, according to the obtained results, it may be concluded that the patients’ safety perception is in a relatively good level among medical residents in the field of emergency medicine.

Key words: Emergency Department • Patient Safety Culture • Perception

INTRODUCTION

Safety from injuries and hazards is a major human right especially when health care is provided for people [1]. However medical errors are main challenging problem for health care organizations worldwide [2]. Since responsibility for public health maintenance and improvement is with health care providers, the quality of care prepared by these sectors is very important [3]. This quality includes some factors including patient safety [4]. Patient safety means prevention and reduction of terrible events and outcomes that may be seen during provision of health care services [5]. These events include aspects such as drug errors, surgical faults, incorrect diagnoses, hospital-acquired infections, falling down, bed sore, false treatment, etc [6].

Such adverse events may be seen in significant number of patients during taking health care services [2]. There are numerous annual fatal cases even in developed countries [7, 8]. The frequency of complaints from health care providers has shown a significant trend in Iran [9] and these errors would result insignificant financial burden and fatal events [10].

Health care organizations, improvement in patients safety culture and a transition from the attitude that no error would be seen to the attitude that encourage reporting the errors even those without patient's injury may lead to improved quality and prevention of errors [11]. Safety culture in organizations results from attitudes, perceptions and behavioral patterns in work teams that would provide type and skill of health and safety [12].

These common values and characteristics are very essential in creation of basic permanent changes in patients' safety culture [13]. Despite long time attention to development and improvement of patient safety culture, the exact impacts on patients' outcome are not yet clear [14-16]. During last decades, this idea that health care system is not sufficiently safe and need to improvement has been considered worldwide. On the other hand, advances in patient safety helped to health care organizations to recognize the risks and develop solution for them. However without patient safety culture in all health care facilities, no rapid persistent development in patient health care provision would be seen. Also attitude about patient safety is mainly evaluated among health care staff and the matter is less assessed among medical students including residents. Hence in this study the perception of residents of emergency medicine about patient safety was evaluated.
MATERIALS AND METHODS

In this cross-sectional study, 29 consecutive subjects including senior and junior medical residents in emergency medicine field in Ahvaz Jundishapour University of Medical Sciences, Southwestern Iran, were enrolled in a census manner in 2012. The only exclusion criterion was dissatisfaction for incorporation in the study. However all subjects responded and were included in the study, the questionnaires and informed consent forms were hand-distributed to them.

The survey included a section that asked questions from the Hospital Survey on Patient Safety Culture (HSOPSC) developed by the Agency for Healthcare Research and Quality (AHRQ) [17]. This instrument contains 12 subscales and 42 items that consider many attributes known to be associated with a culture of patient safety, identified above [18]. Specifically, the subscales of the instrument include: (i) manager expectations and actions promoting safety; (ii) organizational learning; (iii) teamwork within units; (iv) communication openness; (v) feedback and communication about errors; (vi) non-punitive response to errors; (vii) staffing; (viii) management support for patient safety; (ix) teamwork across units and (x) handoffs and transitions. The HSOPSC also includes two subscales that are presented as outcome dimensions: (i) overall perceptions of safety and (ii) frequency of event reporting. The HSOPSC has a good validity and reliability according to previous studies, cognitive tests and factor analyses to assess the patient safety culture in health care centers with construct validities of each safety culture dimension between 0.20 and 0.40 [17]. It was previously translated, validated and used in some studies in Iran [4, 5].

Data analysis was performed among 29 subjects by SPSS (version 13.0) software [Statistical Procedures for Social Sciences; Chicago, Illinois, USA]. Independent-Sample-T and Fisher's Exact tests were used for analysis and P values less than 0.05 were considered statistically significant.

RESULTS

The mean and standard deviation of age was 32.93±3.64 years and 55.2% were female. The mean experience was 4.68±3.98 years. The overall percentage of positive responses was 75.9%. As shown in Table 1, the percentage of positive responses was highest for ‘management support for patient safety’ (89.7%) and ‘communication openness’ (75.9%) and lowest for ‘non-punitive responses to the error’ (13.8%) and ‘frequency of events reported’ (24.1%). The overall mean score for positive perception of patient safety culture was 44.14±20.35. No relationship was found between age, gender, or work experience years and total patient safety culture score.

DISCUSSION

In this study the perception of patient safety culture among residents in emergency medicine field was evaluated. It was found that nearly 76 percent of them had positive overall perception. However the factors such as age, gender and work experience years were not contributing for overall perception among subjects. Highest positive responses seen in “Management Support for Patient Safety” demonstrated the students found a good powerful management system in their health care center and this matter would result in more caution about patient safety by them and also more encouragement for actions in congruence with patient safety culture. On the other hand lowest positive response that is related to “Non-punitive Response to Error” demonstrated more rigid regulations in hospitals letting least possible incorrect events and low fault rate among residents. Totally, these two factors revealed the fact that obligation is the main factor in understudy hospitals to respect different dimensions of patients safety culture. However low sample size in our study was a restriction but we could evaluate all possible cases during a census sampling to increase the validity of current study. Finding no association between all other variables and the knowledge of safety culture was an interesting result that shows the probable role of other contributing factors such as hospital situations and cultural diversities.
Chen and Lee [19] evaluated the perception of safety culture among health care providers in Taiwan and found the highest positive response about "teamwork within units" but it was respected in only half cases in our study showing less powerful perception for teamwork in our study. Total perception of safety culture in their study was 64 percent compared with 76 percent in current study. The study by Al-Ahmadiin [20] in Saudi Arabiarevealed that "Organizational Learning-Continuous Improvement" has the highest positive response rate with 75.9 percent and the lowest rate was related to "Non-punitive Response to Error" with 21.1 percent. These two dimensions were similar among the highest and lowest aspects from point of positive response rate. Tabrizchi and Sedaghat [21] reported less overall positive response rate of 57 percent in Tehran, Iranin comparison with this study. They similarly reported "Non-punitive Response to Error" as the item with lowest positive response rate. However the highest dimension was related to "Teamwork within Units". Their study similarly found no significant association between gender and work experience years with positive overall perception of patient safety culture.

Handler et al. [22] reported that perception of patient safety culture among different hospital wards differs that demonstrates the importance of future comparative studies between medical residents in different educational fields. However Vlayen andcolleagues [23] from Belgium reported a lower positive perception of patient safety among emergency department personnel compared with psychiatry and long-term care wards.

The study by Jasti et al. [24] in United States showed a positive response rate of patient safety culture ranging from 23 to 82 percent that is near to interval obtained in current study 14 to 90 percent. Study by Aboul-Fotouh et al. in Egypt [25] similarly demonstrated that "Non-punitive Response to Error" gains lowest positive response rate with 19.5 percent. However in their study the highest rate was related to "Organizational Learning-Continuous Improvement".

Totally, according to the obtained results, it may be concluded that the patients' safety perception is in a relatively good level among medical residents in the field of emergency medicine. However further attempts for achieving higher positive perception rate is encouraged. Also further comparative studies among medical students in other fields and in different educational stages is suggested.

REFERENCES


