



## A Study of the Relationship between Emotional Intelligence and Patient Safety Culture among Emergency Nurses in Selected Hospitals in Shiraz in 2017

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### ABSTRACT

Providing a favorable and quality nursing care for patients who are members of the community has made patient safety a very important issue in improving the quality of health care in the country, and the nursing profession is full of interactions, especially in terms of the emotional dimension. Therefore, nurses must be able to recognize and manage their own and patients' emotions in order to make better decisions based on the situations and provide quality care. Hence, the aim of this study was to investigate the relationship between emotional intelligence and patient safety culture among emergency nurses of selected hospitals in Shiraz in 2017. This descriptive-analytical study was performed on 150 emergency nurses of selected hospitals in Shiraz in 2017. To measure the four components of emotional intelligence, Bradberri and Greaves' questionnaire were used and the Hospital Survey on Patient Safety Culture (HSOPSC) standard questionnaire was used to measure the safety culture of the patient. The data were analyzed by Pearson correlation test and regression analysis. The results of this study showed that the mean of emotional intelligence and safety culture was higher than the average level of theoretical society. The results also showed that there is a positive and significant relationship between the dimensions of emotional intelligence (self-awareness, self-management, social consciousness and relationship management) and the patient safety culture ( $P < 0.05$ ). There is a direct relationship between emotional intelligence and patient safety culture. Therefore, comprehensive planning in the field of growth and development of emotional intelligence in nursing staff can lead to their personal and professional growth and enhance the status of patient safety culture. This increases the productivity of nurses and satisfaction of patients as a whole and ultimately improves the health of the community.

**Key words:** Emotional Intelligence, Patient Safety Culture, Nurses, Emergency

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### INTRODUCTION

Quality of care is one of the most important issues in the health sector, especially in health care centers. Quality of care itself consists of different elements; and patient safety is one of the most

important ones. However, the studies carried out in the field of health indicate that the safety conditions are inadequate in patient care and thus emphasize the improvement of treatment processes and procedures [1]. World Health Organization (WHO) defines safety as avoiding and eliminating unnecessary and potentially disruptive service-related harm WHO, (2004).

James provided an estimate of the extent of the damage to patients receiving hospital care. According to this estimate, more than 400,000 people die due to preventable injuries, and the incidence of serious injuries is 10 to 20 times more likely than the incidence of death James, 2013; quoted from [2] One of the factors playing an important role in improving the level of patient safety in health centers is the existence of a patient safety culture at the centers. The safety culture is the product of the values, attitudes, perceptions, competencies and behavioral patterns of the individual and group that determine the commitment, procedure and efficiency of the health care organization; and in fact it reflects the roles and technical and social functions of individuals when they are in critical situations [3]. In fact, the patient safety culture reflects the priority of patient safety in viewpoint of health care staff in their workplace and organization [4]. If nurses do not have the proper skills to control their emotions, they will not be able to maintain their peace of mind when dealing and communicating with the patient, especially during different situations, and make the right decisions during the crises. Therefore, the lack of appropriate control and management of emotions increases the likelihood of failure, threatens patient safety and has negative effects on nurses and patients, and results in irreparable consequences [5].

In the literature, the definition of patient safety culture is expressed in three terms: 1) a culture that encourages the identification, communication and resolution of patient safety issues; 2) a culture that provides organizational learning for events; and 3) a culture that provides resources, structure, and accountability in maintaining an effective safety system [6, 7]. Indicators of a strong safety culture include: management commitment for learning from mistakes, documenting and enhancing patient safety, encouraging and practicing teamwork, identifying potential risks, using the reporting and analyzing system for disastrous accidents in the hospital regarding patient safety, and evaluation of patient safety culture among the staff. In fact, the patient safety culture reflects the priority of patient safety in viewpoint of staff in their workplace and organization [4]

Nowadays among care-providing professions, nursing is one of the stressful professions associated with patient safety. Expressing states such as distress, discomfort, sadness and hostility

by patients due to their illnesses and pain, prolonged work shifts and physical exhaustion are some of the conditions in nursing profession that affect patient safety [8,5]. If nurses do not have the proper skills to control their emotions, they will not be able to maintain their peace of mind when dealing with and communicating with the patient, especially during different situations, and make the right decisions during incidence of the crises. Therefore, the lack of appropriate control and management of emotions increases the likelihood of failure, threatens patient safety and has negative effects on nurses and patients, and results in irreparable consequences [5].

Therefore, the ability to manage and understand emotions improves the level of patient safety and is considered as one of the important skills for health professionals because on the one hand, it can potentially increase the quality of patient-centered care, improve nurse communication with the patient and other clinical staff, and ultimately increase the level of safety and satisfaction of patients [9]. In this regard, Emotional Intelligence and its capabilities are among the categories that are generally considered to be of particular managerial and psychological importance and more recently they are considered as a specific individual potential in medical, nursing and other healthcare professionals.

Since to the best knowledge of researcher, there has not been any study regarding the relationship between emotional intelligence and patient safety culture in Iran, on one hand, and also because of the growing increase in medical and nursing mistakes and the increase in public awareness and pressure of public opinion about this issue which led the Ministry of Health to make the issue of patient safety a priority in its plans and support efforts in this area by declaring the governance of clinical service in hospitals (one of the pillars of which is patient safety), on the other hand, therefore, considering the need for hospital authorities to be aware of the current status of the patient safety culture and identify ways to improve it, and considering that nurses are at the forefront (queuing staff) serving patients in hospitals, and have a special role in providing the service and care for patients, and also regarding that often the patient's first experience in hospital is related to the emergency department which is considered one of the most stressful departments with specific stressors for nurses, and considering that nurses' satisfactory performance in the emergency

department is in line with providing patient safety requires the use of desirable coping methods as well as elements such as emotional intelligence, the need for investigating the relationship between emotional intelligence and patient safety culture in Iran is clearly felt and the researcher intends to make an important contribution in promoting the level of emotional intelligence of nurses and ultimately the level of health and safety of patients. Hence, the aim of this study is to determine the relationship between emotional intelligence and patient safety culture in emergency department nurses of selected hospitals in Shiraz.

### **MATERIALS AND METHODS**

The present study was descriptive-analytic. The descriptive-analytical research methodology is used to systematically, objectively and qualitatively describe the content of the concepts. In fact, in addition to illustrating the “what”, the researcher explains the “why and how” in the situation and its dimensions. Descriptive data is usually collected through questionnaires, observations and interviews.

In this study, the research population was the nurses working in the emergency department of selected hospitals in Shiraz in 2017. The research environment in this study due to the relevance and availability of samples was selected hospitals in Shiraz: Shahid Faghihi Hospital, Shahid Rajaei Hospital and Namazi Hospital.

The sample size in this study was determined considering previous studies conducted in this field and the opinion of the professors of statistics, and also considering that the number of nurses working in the emergency department of the selected hospitals was 300, according to Krejcie-Morgan’s table, the sample size was determined to be 175. Considering the fact that the questionnaires should be filled in three hospitals, the number of emergency department nurses in each hospital was obtained. Shahid Faghihi, Shahid Rajaei and Namazi Hospitals had 110, 105 and 150 emergency nursing staff, respectively. According to the formula, 51, 49 and 71 questionnaires were

dedicated to Shahid Faghihi, Shahid Rajaei and Namazi Hospitals, respectively and 42, 43 and 65 questionnaires were filled by the emergency nursing staff of Shahid Faghihi, Shahid Rajaei and Namazi Hospitals, respectively.

The availability sampling method was used in this study and samples were selected from available qualified statistical population (all nurses working in the emergency department of selected hospitals in Shiraz in 2017).

In this research, the following questionnaires were used to assess the variables of the research: a) the Bradber and Greaves’ intelligence questionnaire [10] was used to measure the components of emotional intelligence; b) the Hospital Survey on Patient Safety Culture (HSOPSC) standard questionnaire developed by the American Agency for Healthcare Research and Quality in 2004 [11] was used to measure the safety culture components. The background and theoretical foundations of the study is based on library resources, the web content, and validated internal and external journals.

Regarding the statistical analysis and testing of research hypotheses, due to the natural distribution of data through skewness and kurtosis test [12], Pearson correlation coefficient was used to determine the relationship between variables, and multivariate regression was used to explain the criterion variable through predictive variables. In this regard, the SPSS 21 was used.

### **RESULTS**

Before analyzing the data and testing the research hypotheses, skewness and kurtosis indices were used to check the normality of the data distribution. The absolute value of skewness index higher than 3 ( $SI > 3$ ) indicates excessive skewness and non-normality of data distribution; moreover, if the absolute value of kurtosis index is higher than 10 ( $KI > 10$ ), it indicates excessive kurtosis and abnormal data [12]. Accordingly, as the results of Table 1 shows, all research data have a normal distribution.

**Table 1. Distribution of research data based on skewness and kurtosis of emotional intelligence dimensions.**

	Variable	Mean	SD	kurtosis	Skewness
Emotional Intelligence	Self-awareness	4.53	1.19	5.02	2.34
	Self-management	4.09	0.83	1.39	1.82
	Social consciousness	4.32	0.67	0.12	0.48
	relations management	4.36	0.74	-0.32	0.26
Safety culture	Frequency of reporting events	3.16	0.69	-0.07	0.20
	A general understanding of patient safety	3.07	0.62	-0.71	1.29
	Expectations and management measures for patient safety	2.81	0.73	0.71	2.53
	Organizational learning	3.50	0.83	-0.77	1.43
	Teamwork within organizational units	3.24	1.04	0.35	2.36
	Openness of communication channels	2.88	0.72	-0.12	0.21
	Communication and feedback about mistakes	3.61	1.07	1.99	1.48
	Non-punitive response to mistakes	3.35	0.86	-0.42	-0.74
	Employee-related issues	3.24	0.72	-0.13	0.85
	Management support of patient safety	3.28	0.72	-0.51	0.69
	Teamwork within organizational units	3.08	0.77	0.13	0.20
	Information exchange and transfer	2.84	0.79	0.61	0.46

**Table 2. Average safety culture test**

Variable	Test score=3.15				
safety Culture	t	Degrees of Freedom	Significance Level	Mean Difference	Confidence Interval 0.95
					Lower limit    Upper limit
	-44.93	149	0.001	-1.84	-0.42    -0.27

**Table 3. Emotional intelligence test**

variable	Test score=4.29				
Emotional Intelligence	t	Degrees of Freedom	Significance Level	Mean Difference	Confidence Interval 0.95
					Lower limit    Upper limit
	-13.60	149	0.001	-0.70	-0.80    -0.59

Using a single-sample t-test, the following hypothesis was tested: if the mean safety culture in the statistical sample is higher than average. According to t-test, at 95% level, the mean safety culture in the target statistical population is higher than the average of the theoretical society (see Table 2).

Using single-sample t-test, the following hypothesis was tested: if the mean emotional intelligence in the statistical sample is higher than average. According to t-test results, at 95% level, the mean of emotional intelligence in the target statistical population is higher than the average of theoretical society (see Table 3).

Hypothesis 1:

H1: there is a relationship between self-awareness (one of the dimensions of emotional intelligence)

and patient safety culture among emergency department nurses of selected hospitals in Shiraz.

**Table 4. Correlation coefficient between self-awareness and safety culture variables**

Variable	Correlation coefficient	Significance level
self-awareness - safety culture	0.085	0.03

According to Table 4, the relationship between self-awareness and patient safety culture was positive and significant (P <0.05).

Hypothesis 2:

H2: there is a relationship between self-management and patient safety culture among emergency department nurses of selected hospitals in Shiraz.

**Table 5. Correlation coefficient between self-management and safety culture variables**

Variable	Correlation coefficient	Significance level
self-management - safety culture	0.56	0.001

The results of Table 5 show that there is a positive and significant relationship between self-management (one of the dimensions of emotional intelligence) and safety culture.

Hypothesis 3:

H3: there is a relationship between social awareness and patient safety culture among emergency department nurses of selected hospitals in Shiraz.

**Table 6. Correlation coefficient between social consciousness and safety culture variables**

Variable	Correlation coefficient	Significance level
social consciousness - safety culture	0.28	0.001

The results of Table 6 show that there is a positive and significant relationship between social consciousness (one aspect of emotional intelligence) and safety culture.

Hypothesis 4:

H4: there is a relationship between relationship management and patient safety culture among emergency department nurses of selected hospitals in Shiraz.

**Table 7. Correlation coefficient between relationship management and safety culture variables**

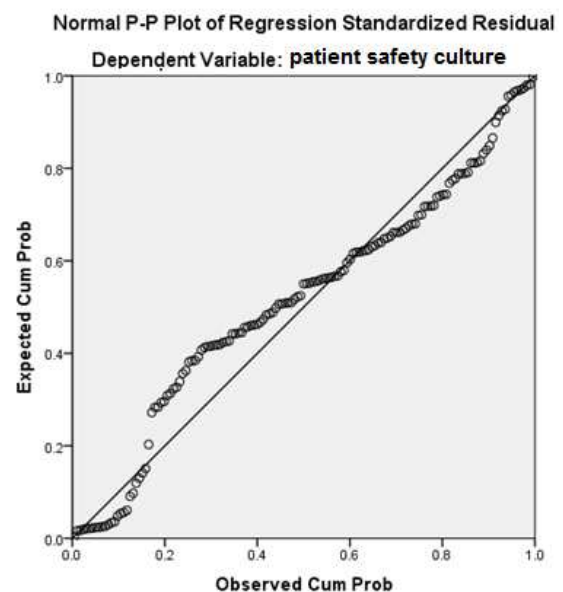
Variable	Correlation coefficient	Significance level
Relationship management - safety culture	0.77	0.003

**Table 8. Model summary in regression analysis by synchronous method between dimensions of emotional intelligence and safety culture**

Variables entered into the model	Degrees of freedom	F	R	R2	Adjusted R2	Sig	Durbin-Watson
Emotional intelligence dimensions	148	0.479	0.425	0.231	-0.011	0.001	1.78

The results of Table 7 show that there is a positive and significant relationship between relationship management (one aspect of emotional intelligence) and safety culture.

Also, multivariate regression analysis was used to examine the multiple relationships between different dimensions of emotional intelligence and safety culture. Based on the results of Table 8, regression analysis test was significant and the regression model was confirmed. The multivariate correlation coefficient between the variables based on the extracted tables is  $R = 0.425$  and  $R^2 = 0.23$ , and because the correlation obtained has a significant level of 0.001, it indicates that emotional intelligence with confidence level of 99% predict 0.23 of changes in the patient safety culture. In order to determine which of the four dimensions of emotional intelligence play the most effective role in predicting the safety culture, and which one of the dimensions is a better explanatory factor for the variance of the safety culture, multiple regression analysis was used simultaneously. The research data indicated that all dimensions of the emotional intelligence were entered into the model (see Table 8).



**Figure 1. Plot of regression standardized residuals (predictive variable: dimensions of emotional intelligence; criterion variable: patient safety culture)**

**Table 9. Simultaneous Multiple Regression Analysis**

Variable	B	$\beta$	t	Sig
Constant number	2.87	-	8.73	0.001
Self-awareness	0.030	0.070	0.824	0.001
Self-management	0.020	0.034	0.378	0.001
Social consciousness	0.036	0.048	0.048	0.001
Relationship management	0.050	0.074	0.740	0.001

In regression analysis, before using the results of the analysis, two basic assumptions about regression analysis should be considered: 1) the residuals of the regression line are uncorrelated; and 2) the residuals of the regression line are normal. If the above assumptions are met, then one can cite the results of the regression analysis. Durbin-Watson 13 statistics is used to investigate the noncorrelation of regression lines residues. It has been suggested that the value of this statistics should be between 1.5 and 2.5 the assumptions to be established. In the present study, the Durbin-Watson statistics was 1.78. Thus, the regression line residuals are uncorrelated. The standardized residual regression scheme was used to normalize the regression line residuals (Fig. 1). Given that all points are located around a straight line, the assumption of the normality of the residuals of the regression line is established. Considering the confirmation of the underlying assumptions and the results of regression analysis, and based on the predictor variable coefficients in the test (see Table 9), the following equation (Eq. 1) can be used for the relationship between the dimensions of emotional intelligence and the patient safety culture. In addition, this equation can be used to predict the extent of safety culture based on the dimensions of emotional intelligence.

Emotional intelligence = Self-awareness (0.070) + Self-management (0.034) + social consciousness (0.048) + relationship management (0.074)

### CONCLUSION AND SUGGESTIONS

The lack of proper control and management of emotions increases the likelihood of mistakes, threatens patient safety, and has negative effects on the nurse and patient, and also may result in irreparable consequences [5]. Therefore, the purpose of this study was to investigate the relationship between emotional intelligence dimensions and patient safety culture in emergency department nurses. The results of this study showed that the mean safety culture of the patient in the statistical population was slightly higher than the theoretical average of the society.

Organization culture is one of the most important determinants of patient safety in hospitals. In fact, the patient safety culture reflects the priority of patient safety in viewpoint of staff in their workplace and organization [4]. This finding can be explained by the fact that in the surveyed statistical society and hospitals in which questionnaires were distributed, the overall level of understanding of patient safety is at a slightly higher level than the average of the theoretical society. This finding is in line with the results of research by [2, 13, 14, 15] among nurses of hospitals in Mazandaran province, Iran, Rezapur *et al.* (2012) in hospitals of Tehran University of Medical Sciences, and Almasi *et al.* (2013) in Kermanshah University of Medical Sciences. Our findings are inconsistent with [16] who investigated the patient safety culture in Khorramabad educational and teaching hospitals and reported the mean safety culture of patients lower than the average. The results of our study showed that the mean of emotional intelligence in the statistical population was higher than the average of theoretical society. Previous studies show that people who have higher emotional intelligence are more successful in communication than others; they have a high level of self-awareness, and perceive their own and others emotions and manage these emotions more effectively, and are realistic about their abilities because they have a brilliant background in dealing with different situations. Therefore, they have the ability to regulate and express the emotions in stressful situations, which release the heavy burden of negative emotions. This finding was consistent with the results of [17, 18, 19] Therefore, a high level of emotional intelligence is necessary for emergency department nurses who are under severe stress.

The results of this study showed that there was a positive and significant relationship between self-awareness and patient safety culture among nurses in the emergency department. This finding can be explained by the fact that individuals with stressful jobs, such as nurses, if have confidence in their abilities, have knowledge of their strengths and weaknesses, can understand their emotions when they face them, and realize that their behavior directly affects others, will perform better in stressful situations, better help patients, and keep them safe. This finding was in line with the results of [17, 18, 19] According to the results of this study, hospital managers can enhance emotional intelligence through educational sessions and increase the awareness and knowledge of nurses

about their morality and characteristics and provide the ground for continuous improvement of hospital emergency services.

The results also showed that there is a positive and significant relationship between self-management of emotional intelligence and patient safety culture among nurses in the emergency department. This finding can be explained as follows: nurses who have good control over their emotions and consider a variety of possibilities before making a decision can be better suited to stress conditions. They try to get the best and the most in every situation, and in general, nurses with a high level of self-management can better keep the patient safety at a high level. This finding was consistent with the results of the research by Birks *et al.* (2007) who in a review studied the role of emotional intelligence in patient safety. The results of this study showed that emotional intelligence can influence the patient safety by influencing relationships and controlling emotions. [17] also in a study attempted to model the role of emotional intelligence in patient safety. The results of this study showed that emotional intelligence is an important skill in maintaining the safety of patients in the field of health (hospital).

Emotional intelligence not only increases patient care by identifying emotions in oneself and others, understanding and correct use of emotions and their management, but also improves patient safety. In addition, the growth of emotional intelligence may have a mediating effect on the role of communication in patient safety and reduce risk and medical and nursing mistakes. Also, the results showed that there is a positive and significant relationship between the social consciousness of emotional intelligence and patient safety culture among nurses in the emergency department. Social consciousness means recognizing the thoughts and feelings of others, including empathy at all levels of the individual, group, and organization [20] Individuals with this skill know precisely that their words and actions affect others and that if their influence is negative, they must change it. This finding was consistent with the results of the research by [19, 21] Also, [14] studied the relationship between patient safety culture and nurses' professional behavior in the framework of clinical governance implementation. The results of this study showed that there is a significant and direct relationship between nurses' professional behavior and patient safety culture. Therefore, the higher the nurses' professional behavior, the

patient's safety culture will be improved. With an empowerment program, it seems to be possible to create a climate in workplace in which people are more responsive to their professional behavior, and to increase patient safety and patient safety culture. The findings showed that there is a positive and significant relationship between the emotional intelligence relationship management and patient safety culture. Relationship management means the ability to establish clear and convincing communication, influence, cooperating, team-working, eliminating differences and building strong links between individuals. This skill can be used to increase passion and resolute conflicts. This finding can be explained as follows: nurses who have a high relationship management often face patients in difficult situations and communicate clearly and easily with them. They show patients that their emotions and behaviors are important. The results of Patricia's (2012) research showed that increased emotional intelligence and nurses' relationship management skills reduce the stress and violence in the workplace.

Regarding the fact that the mean patient safety culture and emotional intelligence in the statistical society was moderate, it is suggested that the authorities and managers of hospitals improve these skills among nurses through holding training courses and workshops emphasizing that nurses not only have occupational responsibility but also human responsibility about the patients and they should be sensitive to patient safety.

It is suggested that, given the importance of patient safety, the authorities and managers of health centers and hospitals clearly explain their expectations during meetings on the safety of patients for their personnel and seriously pursue the extent to which these expectations have been met by the staff.

It is suggested for health authorities, considering the positive relationship between all aspects of emotional intelligence and patient safety culture, to improve the level of self-awareness, self-management, social consciousness and relationship management among nurses and other personnel by holding courses and workshops and thus increase emergency services quality.

## REFERENCES

1. Mahfouzpour S., Eyni A., Mobasheri F., Faramarzi A. (2011). The Study of Patient Safety Culture in Teaching Hospitals Affiliated to Shahid Beheshti University of Medical Sciences in 2011. *Journal of Shahid Beheshti University of Medical Sciences*. (3) 17: 134-141.
2. Sham-al-dini Lori A., Esta A., Atash Bahar A., Ramezani S., Pourahmadi M.R., Ahmadi Kashkoli P. (2016). A Study of the Status of Patient Safety Culture from Nurses' Point of View in Selected Educational Hospitals Affiliated to Shahid Beheshti University of Medical Sciences. *Quarterly Journal of Health Research*. (1) 2: 81-92.
3. Schein EH. *Organizational culture and leadership*. 2nd Ed. San Francisco, CA: Jossey-Bass; 2009
4. Zohar D, Livne Y, Tenne-Gazit O, Admi H, Donchin Y. Healthcare climate: a framework for measuring and improving patient safety. *Critical Care Medicine*. 2007; 35:1312-17.
5. Montes B, J.M. A. Exploring the relationship between perceived emotional intelligence, coping, social support and mental health in nursing students. *J Psychiatr Mental Health Nurs*. 2007;14(2):163-71.
6. Wong P, Helsing D, Petry J. Providing the right infrastructure to lead the culture change for patient safety. *Joint Commission Journal Quality Improvement*, 2002;28:363-72
7. Piotrowski MM, Hinshaw DB. The safety checklist program: creating a culture of safety in intensive care units. *Joint Commission Journal Quality Improvement*. 2002; 28:306-15.
8. Landa J, Lopez-Zafra E. The impact of emotional intelligence on nursing: an overview. *Psychol*. 2010;1(1):50-8.
9. Wagner PJ, Mosley GC, Grant MM, Gore JR, Owens CL. Physicians' emotional intelligence and patient satisfaction. 2002.
10. Bradberi T, Greaves J. *Emotional intelligence*, Ganji M, editor. Tehran: Savalan; 1999.
11. Matsubara S, Hagihara A, Nobutomo K. Development of a patient safety climate scale in Japan. *Int J Qual Health Care*. 2008;20(3):211-20.
12. Kline, R. B. *Principles and Practice of Structural Equation Modeling*. Series Editor's Note by Todd D. Little, THE GUILFORD PRESS, 2011, pp 63.
13. Zendegani N., Zarezadeh N., Montaseri M.A., Rabiei S. (2014). A Study of the Status of Patient Safety Culture from the Viewpoint of Medical Personnel in Jahrom University of Medical Sciences Affiliated Hospitals in 2014. *Quarterly Journal of Education and Ethics in Nursing*. (4) 3: 49-56.
14. Jabbari F., OshakSarai M., AzadehDel M.R., Mehrabian F. (2015). The Relationship between Patient Safety Culture and Nurses' Professional Behavior in the Implementation of Clinical Governance. *Comprehensive Nursing & Midwifery Journal*. (77) 25: 27-33.
15. Sharifi S., Izadi Tameh A., Hatamipour Kh., Goghari N., Safabakhsh L. (2014). Patient Safety Culture from the Viewpoint of Nurses Working in Hospitals in Mazandaran Province. *Nursing Care Research Center of Iran University of Medical Sciences, Iranian Journal of Nursing*. (88) 27: 77-87.
16. Salarvand S., Moayyed Kazemi A.R., Bahri N., Dalvand P., Moghimiyani M., Ali Mahmoodi G., Ebrahimzade F. (2015). Patient Safety Culture from the Perspective of Medical Staff. *Quarterly Journal of Nursing Management*. (4) 4: 54-64.
17. Codier E, Codier D. A model for the role of emotional intelligence in patient safety. *Asia Pac J Oncol Nurs*. 2015 Apr-Jun; 2(2): 112-117.
18. Tavan, A.; Chehrezad, M.; Kazemnejad Leyli, A.; and Sedri, N. (2016). The Relationship between Emotional Intelligence and Nurses Exhaustion. *Comprehensive Nursing and Midwifery Journal*. (80) 26: 49-58.
19. Kouchakzadeh M., Sohrabi Z., Mosaddegh Rad A.M. (2015). The Relationship between Emotional Intelligence and Communication Skills of Emergency Department Nurses. *Journal of Hospital*. (3) 14: 68-74.
20. Goleman (2007). *Emotional Intelligence*, Translated by Ebrahimi B., Jouyandeh M.; Roshd Publishing.
21. Mafi L., Asefzadeh S. (2014). The Relationship between Emotional Intelligence and Communication Skills of Nurses with Patient. *Journal of Qazvin University of Medical Sciences*. (3) 18: 34-43.