

## Effect of Emotional Intelligence on the Quality of Nursing Care from the Perspectives of Patients in Educational Hospitals

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ARTICLE INFO	ABSTRACT
<p><b>Article type:</b> Original article</p> <hr/> <p><b>Article History:</b> Received:18 -Jun-2019 Accepted: 14-Mar-2020</p> <hr/> <p><b>Keywords:</b> Emotional intelligence, Nursing care, Tehran University of Medical Sciences Hospitals</p>	<p><b>Introduction:</b> Nurses often work in stressful environments and it is widely accepted that emotions can exert profound effects on the quality of care in hospital settings. Therefore, the impact of emotional intelligence on the performance of nurses has been the focus of numerous studies. The present study aimed to assess the relationship between emotional intelligence and quality of nursing care from the perspectives of patients in hospitals affiliated to Tehran University of medical sciences.</p> <p><b>Materials and Methods:</b> The current descriptive-analytic cross-sectional study was conducted on nurses and patients in four selected hospitals affiliated to Tehran University of medical sciences in 2016. Sample size was based on sample size formula in nurses with limited population and patients with unlimited population with 95% confidence level. Finally, a total number of 300 nurses and 270 patients were selected. Data collection tools included standardized Emotional Intelligence Questionnaire and Parasuraman Questionnaire (hospital quality assessment).</p> <p><b>Results:</b> The best score of nurses' emotional intelligence was reported in the social self-awareness domain (3.9), while the lowest score was detected in self- motivation domain (3.02). In general, it can be concluded that emotional intelligence in nurses was higher than average with 3.2. The results of the present study indicated that there was no significant relationship between emotional intelligence and the quality of nursing care in selected hospitals.</p> <p><b>Conclusion:</b> As evidenced by the obtained results, there is a significant relationship between some aspects of the quality of hospital services (e.g., sympathy, assurance, and tangible) and emotional intelligence. Nonetheless, a significant relationship was not confirmed between nurses' emotional intelligence and the quality of hospital services.</p>
<p>► <b>Please cite this paper as:</b> Najafpour J, Keshmiri F, Rahimi S, Bigdeli Z, Niloofar P, Homauni A . Effect of Emotional Intelligence on the Quality of Nursing Care from the Perspectives of Patients in Educational Hospitals. <i>Journal of Patient Safety and Quality Improvement.</i> 2020; 8(1):37-43. Doi: 10.22038/psj.2020.41216.1233</p>	

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Emotional intelligence which was introduced by Mayer and Salovey in the early 1990s refers to the ability to harness(1), understand, and recognize emotional expressions for managing relationships. This intelligence develops people's awareness of emotions that facilitate opinions with reception, evaluation, and expression of emotions (2). In general, the basic characteristic of emotional intelligence include perception, understanding, and controlling emotions (3). Tension is an integral part of the nursing profession; therefore, nurses should learn how to manage their emotions in stressful work environments. Emotions are complicated reaction patterns and emotional intelligence is acquisitive and is not related to gender, education level, and social-economic status. People with high emotional intelligence are more consistent in stressful environments (4).

Nurses often work in stressful environments and it is widely accepted that emotions can exert profound effects on the quality of care in hospital settings. Therefore, the impact of emotional intelligence on the performance of nurses has been the focus of numerous studies (5-7). The ability of nurses to build a good relationship with patients and manage emotions is essential to providing high-quality nursing care. The improvement of emotional intelligence is effective in managing emotions in high-stress hospital environments (8).

Nursing performance requires the use of such elements as emotional intelligence which can affect the nurse-patient relationship and quality assessment from patients' perspectives. Perceived high quality of services usually shapes patient satisfaction with healthcare services. Lafferri recognized patient satisfaction as one of the main aspects of service quality in hospitals (9). The quality of nursing care refers to patients' satisfaction with the services provided by them. One of the most important factors affecting patient satisfaction is the quality of health services; nonetheless, this component is different from the definition of quality in the market and service quality is more difficult to evaluate than goods quality (10).

Quality measurement is very effective in the identification of strengths and weaknesses by comparing customer expectations in different dimensions; therefore, if performance exceeds customer expectations, it also brings customer satisfaction (11). One of the most important factors that affect the quality of services is Service providers' emotional intelligence (12). The results of the studies conducted by Deadrick, Rao, and ranjbar indicated that emotional intelligence has a positive impact on the quality of services and improving performance (13-15).

Through effective management of emotions, nurses can communicate with patients and provide high-quality services, thereby ensuring patient satisfaction. Therefore, the current study aimed to assess the relationship between emotional intelligence and quality of nursing care from the perspective of patients in hospitals affiliated to Tehran University of medical sciences.

## Materials and Methods

The present study was a descriptive-analytic cross-sectional study conducted on nurses and patients in four selected hospitals affiliated to Tehran University of medical sciences in 2016. Out of the selected hospitals, two centers (Shariatic and Imam Khomeini hospital) were the largest hospitals of Tehran University of medical sciences, and the two others were selected randomly. The sample size was based on sample size formula in nurses with a limited population and patients with an unlimited population with a 95% confidence level. Finally, a total number of 300 nurses and 270 patients were selected for the purpose of the study.

Data collection tools included standardized Emotional Intelligence Questionnaires and Parasuraman questionnaire (hospital quality assessment). The questionnaires were onfirmed to have high reliability with a Cronbach's alpha of 0.946. The emotional intelligence questionnaire consists of two parts: the first part is demographic information and the second part contains 33 questions concerning the level of emotional intelligence in Likert scaling, each item is scored on a five-point

categorical scale, ranging from always to never. This questionnaire includes five domains, namely awareness, self-management, social self-awareness, social skills, and self-esteem. Parasuraman questionnaire was used to assess the quality of hospital services from the patients' perspective. It consists of a demographic information section and a section containing 22 two-dimensional questions in five general areas of tangibility, accountability, reliability, assurance, and empathy. The researchers completed the questionnaires in the hospitals after confirming the validity and reliability of the questionnaire. The Kolmogorov-Smirnov test was used in Parasuraman questionnaire to test the normal distribution of data. The paired t-test was used to test the gap between the current and the desired situation. Moreover, descriptive tests (mean and standard

deviation) were used to measure the level of emotional intelligence of nurses. The data were analyzed in SPSS software (version 20).

## Results

As illustrated by the findings, in terms of age distribution, the majority of nurses were in the age group of 36-40 years (n=116). Most of the participants had working experience between 16-20 years (35.8%) and the smallest group consisted of nurses with working experience of more than 25 years (2.2%). 48% of the participants were female and 52% male. The best score of nurses' emotional intelligence was reported in the social self-awareness domain (3.9), and the lowest score was related to self-motivation domain (3.02). In general, nurses' emotional intelligence was higher than average with 3.2 (Table 1).

**Table 1:** Descriptive statistics of emotional intelligence dimensions

Domains	standard deviation ±mean
Emotional intelligence	3.2 ±0.6
awareness	3.1±0.9
Self- management	3.3±0.4
Self- motivation	3.02±0.7
Social self- awareness	3.9±0.7
Social skills	3.4±0.8
Domains	standard deviation ±mean
Emotional intelligence	3.2 ±0.6
awareness	3.1±0.9
Self- management	3.3±0.4
Self- motivation	3.02±0.7
Social self- awareness	3.9±0.7
Social skills	3.4±0.8

The score of emotional intelligence in nurses was found to be higher than average, and a slight discrepancy was detected among emotional intelligence scores.

Nurses working in Farabi Hospital with a mean of 3.3 had the highest level of emotional intelligence, while the lowest level of emotional intelligence was reported in nurses of Imam Khomeini Hospital with a mean of 3.1.

Nevertheless, based on the results of Kruskal-Wallis test, there was no significant difference between hospitals (Table 2).

**Table 2:** The mean of emotional intelligence in the studied hospitals

Hospital	Mean of emotional intelligence
Shariati hospital	3.2 ±0/33
Imam Khomeini hospital	0±3.1/42
Farabi Hospital	±3.3/27
Vali-e Asr Hospital	0±3.2/39

In addition, a relationship was observed between some aspects of the quality of hospital services (sympathy, assurance, tangible) and emotional intelligence ( $P<0.05$ ) (Table 3).

**Table 3:** Relationship between emotional intelligence and hospital services quality aspects

Domain	Correlation Coefficient	P-value
Self- awareness	0.17	0.007
Self- management	0.16	0.01
Social self- awareness	0.13	0.03
Social skill	-0.02	0.7
Self- motivation	0.2	0.2

In general, the relationship between the quality of nursing care and emotional intelligence cannot be confirmed.

The mean discrepancy between perceived and desired quality of nursing care from the patients' perspective was calculated based on five dimensions of SERVQUAL model.

The results of the paired t-test demonstrated a significant discrepancy between patient perceptions and expectations (Table 4).

**Table 4:** Comparison of perceptions (current situation) and expectations (desired situation) of the quality of hospital services

Dimensions of service quality	Perception (current situation)	Expectations (desired situation)	Current gap	P-value
Physical tangible	3.2±0.069	4.9±0.023	-1.6	P<0.001
Reliability	3.4±0.057	4.9±0.015	-1.5	P<0.001
responsiveness	3.2±0.056	4.9±0.01	-1.69	P<0.001
Assurance	3.5±0.060	4.9±0.021	-1.38	P<0.001
Sympathy	3.2±0.071	4.9±0.016	-1.64	P<0.001
Service quality	3.3±0.056	4.9±0.022	-1.60	P<0.001

The results indicated that the studied patients had a high expectation of the quality of services in all dimensions. The difference between the mean of patient perception from the current situation and expectations from the desired situation in all dimensions was statistically significant ( $P<0/001$ ). Moreover, the results suggested that the maximum gap between the current and desired situation was detected in the responsiveness dimension, while the minimum gap was related to the assurance dimension. There was also a significant statistical correlation between emotional intelligence and patient perception from the current situation of quality of hospital services.

**Discussion**

As indicated by Kiarouci, emotional intelligence is a very important factor at work, and the ability to understand and express this intelligence is an important factor in the success and failure of individuals in their jobs (17), as well as the alignment of human resources in organizations. Emotional intelligence and the quality of hospital services have a direct impact on patients' satisfaction (18,19). Therefore, in order to create a safe environment for patients, hospitals and

universities should incorporate the teaching of emotional intelligence components into their continuing education programs. Emotional intelligence is very effective in managing tensions and stress in nursing staff, thereby empowering nurses to actively control their emotions when they are exposed to stress. Therefore, it is important to train nurses to promote emotional intelligence (20). Among the components of emotional intelligence, social self-awareness was the best skill, and self-motivation was the weakest skills in nurses. "Social self-awareness" improves the ability to recognize and understand other people's emotions. These are very important for controlling and managing relationships, the studied sample demonstrated an acceptable ability in this dimension of emotional intelligence. Self-motivation is one of the most important factors in emotional intelligence. The people that have good ability in this dimension of emotional intelligence can overcome stressor factors, such as frustration, anxiety, and irritability. The results of the current study indicated a correlation among the components of emotional intelligence and it is believed that the improvement of these factors exerts a positive and direct effect on the establishment of effective communication.

The results of a study conducted by shareh also confirmed this relationship (23).

### Furthermore

The obtained results suggested that there is a significant relationship between some aspects of the quality of hospital services (sympathy, assurance, tangible) and emotional intelligence. However, a significant relationship was not confirmed between nurses' emotional intelligence and the quality of hospital services, and the mean of nurses' emotional intelligence in studied hospitals was higher than the average (3.2). Moreover, a correlation was observed between the components of emotional intelligence and the quality of hospital services. Emotional intelligence, as a psychological factor, has a close relationship with mental health. Emotional intelligence includes some skills that facilitate the processing of social information and cause intellectual coherence (16).

A study performed by Jackson showed that the most important determinants of patient satisfaction are physical comfort, mental support, and patient's rights (24). In the same vein, a study carried out by O'Connell suggested that a good relationship between staff and patients plays an important role in the quality of services and is an important factor in patient satisfaction (25).

The quality of hospital services was higher than the average from the patients' perspective; nonetheless, it is worthy to note that there was a gap between patients' expectations and perception of the service quality. Based on SERVQUAL analysis, among the different dimensions of quality with, the means of patients' perception about the quality of hospital services and their expectations of the desired situation were reported as 3.3 and 4.9, respectively. In addition, among the quality of services dimension, the assurance dimension was the best and sympathy dimension was the weakest dimension. The results of the current study regarding the quality of nursing care are comparable to the findings of the study conducted by Mirghafouri and Ahmadabadi in Rahneem Hospital of Yazd (26). The gap between the perception of patients from the current situation and their expectation of the desired

situation of the quality of hospital services was significant which was consistent with the results of a study performed by Cabe (27). Patients were dissatisfied with the lack of proper communication, attention, empathy, and friendly communication among nurses. The results of a study conducted by Ranjbar and Noorihekmat in Iran University of Medical Sciences Hospitals is also similar to the results of the current study concerning the gap between current and desired situation in studied hospitals (28,29). In these studies, there was a gap between the quality of service in the studied centers as it was reported in the current study. Nevertheless, the factors that created this gap were different in some of them. In the present study, the largest gaps were observed in the dimensions of accountability and sympathy. The quality of service can be judged according to the professional or public opinion of the community. In the study conducted by Ranjbar, as in the present study, the results indicated a gap between expected and perceived quality and factors, such as disregarding cleanliness of a patient's hospital room, resolving patient problems in the treatment process, and providing a clean environment can pose serious problems for the hospital (29). In the present study, the most significant gap between perception and expectation was observed in the responsiveness dimension with -1.69.

This factor requires training to enhance the organizational responsiveness culture and effective communication with the patient in order to improve the quality of performance. Shortell et al. highlighted the importance of the existing gap in this dimension and reported that applying continuous improvement and improving hospital accountability could have an impact on the reduction of the length of hospital stay, drug side effects, disability rates, and disease complications (30,31).

Responsiveness dimension was one of the factors affecting the quality of services from the patients' perspective. In different studies, the results indicated that out of every nursing care two cares were not performed in the studied hospitals. An increase in the number of nursing care that has not been done is related to wrong health

care such as: giving the wrong dose to the patients, occurrence of hospital infection and falling from the bed (32).

A study performed by Zare also illustrated that patient satisfaction is closely related to the quality of services. Therefore, nurses should consider patients' needs in order to achieve high-quality care (33).

In the current study, the least gap between perception and expectation of patients was related to the reliability dimension with a score of -1.5.

This dimension refers to the nurse's mistakes during providing care.

The obtained findings also indicated a significant relationship between the emotional intelligence of head nurses in different age groups and different work experiences. Furthermore, emotional intelligence was revealed to increase with age and work experience in nurses.

### Conclusion

As evidenced by the obtained results, it is recommended that authorities consider the promotion of employees' emotional intelligence in hospitals and also evaluate the quality of services from the patients' perspective.

Emotional intelligence can be improved by organizing training courses to control stress and enhancing strategies for confronting obstacles and improving the quality of social relationships with patients.

Hospital administrators should identify patients' expectations and plan to fulfill their needs in order to improve the quality of hospital services and bring them closer to the expectations of patients.

### Acknowledgment

The current study was financially supported by Tehran University of Medical Sciences Student Research Center. Our special thanks go to all the nurses and patients who helped us in the current study.

### Conflicts of interest

The authors declare that they have no conflict of interest regarding the publication of this article.

### Ethical considerations

Ethical considerations were considered in all stages of the present research.

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