

# Relationship between communication skills and emotional intelligence among nurses

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None declared

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## Abstract

**Aim** Nurses' emotional intelligence (EI) affects many of their behavioural skills. Given the importance of communication skills, the aim of this study is to investigate the relationship between EI and the communication skills of emergency department nurses.

**Method** 253 nurses working in five hospitals affiliated to Ardabil University of Medical Sciences took part in this cross-sectional analytical study. Participants completed Goleman's EI Scale and a researcher-designed communication skills questionnaire. Validity and reliability of the tools were measured throughout the study. Data analysis was carried out using analysis of variance, Pearson correlation and Spearman correlation tests in SPSS v18.

**Findings** The mean EI score was estimated to be 78.31 with the highest and lowest scores related to self-awareness (20.83) and self-management (18.19) dimensions respectively. The mean total score of communication skills was estimated to be 70.91. There was a significant relationship between total EI score and total communication skills score ( $r=0.775$ ,  $P<0.01$ ) and a strong significant relationship between the four dimensions of EI and the total score of communication skills.

**Conclusion** Since EI and its dimensions have a positive effect on nurses' communication skills hospital managers can enhance EI by organising training sessions and promoting communication skills and provide the ground for continuous improvement of hospital services.

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## Keywords

communication, interpersonal skills, nurse-patient relationships, staff welfare, workforce

## Introduction

The term emotional intelligence (EI), first coined by John Mayer of Yale University, Connecticut, emphasises the ability to control one's own feelings and emotions, accept the feelings, emotions and views of others, and control social relationships and actions (Daramadi and Aghayar 2008). Daniel Goleman introduced the concept of EI to scientific communities in 1994 and revised it in 2004. He states there are four categories of EI: self-awareness, self-management, social awareness and relationship management (Daramadi and Aghayar 2008).

The ability to establish appropriate communication is one of the basic skills of social life. Communication is so important that some scholars consider it to be the basis of human development and achievement, as well as a cause of individual harm (Banerjee et al 2016).

Nurses manage numerous interactions in the workplace, including with other nurses, patients, families, supervisors and other people attending hospitals (Turkelson et al 2017). Nursing care is one of the most important aspects of clinical practice (Wiechula et al 2016) and a good relationship between nursing care providers creates trust between nurses,

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patients and families who seek good healthcare services (Turkelson et al 2017). Conversely, the lack of proper relationships between nurses has a negative effect on patient care (Ezzatabadi et al 2012, Kaur et al 2015).

Weak relationships can lead to misunderstandings, a sense of hopelessness or physician-nurse disputes, often leading to more medical errors and poor treatment outcomes (Leonard et al 2004, Nasiripour and Saeedzadeh 2012, Mayer et al 2014).

Nurses with good communication skills are less likely to experience job pressure and associated stress, and often outperform their colleagues (Nasiripour and Saeedzadeh 2012). Koh et al (2017), who investigated the role of EI in developing interpersonal communication skills, argue that individuals with high EI levels can control their emotions better and so give logical responses to problems (Petrovici and Dobrescu 2014).

Emergency care is often the first point of contact between patients and healthcare services, and staff, particularly nurses, can experience high stress, so EI is especially important, for example, to emergency department (ED) nurses (Hoot and Aronsky 2008). These nurses must have the abilities and skills, including effective communication skills, to manage the pressure of work in EDs (Bahadori et al 2008, O'Connell et al 2014).

Research also reveals that EI has a positive effect on job satisfaction and quality of services (Weng et al 2011), and that appropriate communication skills can reduce stress and improve services offered by nurses (Arnold and Boggs 2015). However, studies at Ardabil University report low EI levels among nurses (Saeid et al 2013).

### **Aim**

A study of the EI phenomenon and communication skills, and their interaction in the healthcare field, will provide information to help decision- and policy-makers improve the effectiveness of the healthcare system. The aim of this study, therefore, was to determine the relationship between EI and the communication skills of nurses in hospitals affiliated to Ardabil University.

### **Method**

#### **Study design**

A total of 253 nurses working in five hospitals affiliated to Ardabil University took part in this descriptive-analytic cross-sectional study. Sampling was carried out using the census method.

A list of all nurses working in hospitals affiliated to the university was prepared by the hospitals' human resource departments and nursing offices, and was made available to the researchers. The researchers distributed copies of a questionnaire to all ( $n=283$ ) nurses in the affiliated hospitals, with 253 being completed and returned, a response rate of 88%. The reasons for non-participation include absence due to maternity or training leave, and the need to work in other areas of the country.

#### **Data collection tools**

The data collection tools were a demographic questionnaire, Goleman's Emotional Intelligence Scale (Goleman 2006), and a researcher-designed communication skills questionnaire, based on a literature review and the Shannon and Weaver model of communication (Weng et al 2011).

Factors expected to affect EI and communication skills, including age, gender, employment history and type, university degree, organisational rank, marital status, history of management and training, hospital, and workplace and shift, were incorporated in the demographic questionnaire.

Goleman's Emotional Intelligence Scale, validated by Madani et al (2014), is a 28-item questionnaire on EI and its four dimensions, namely self-awareness, self-management, social awareness and social skills. A Cronbach's alpha coefficient of 0.87 was obtained for the EI scale (Arnold and Boggs 2015).

In this study, the reliability of the questionnaire was re-evaluated and the Cronbach's alpha coefficient was calculated as 0.872. The scale is divided into four dimensions, each comprising seven questions to which each participant gives a score between 0, meaning 'never', and 4, meaning 'always'.

The researcher-designed communication skills questionnaire consisted of 24 questions answered using five-point scale with a possible score range of 0 to 96. Its reliability was measured and Cronbach's alpha coefficient of 90% was estimated.

#### **Data analysis**

Data analysis was carried out using one-way analysis of variance, independent *t*-test and correlation tests (Pearson and Spearman) in SPSS software version 18. Levin statistics was used to determine the homogeneity and heterogeneity of variances of the studied variables. Results of this test showed that, if the statistical value is below the significance level of  $P<0.05$ , variances are heterogeneous.

**Ethical considerations**

Nurses completed the questionnaires and participated in the research voluntarily. Explanations were given about the research objectives and the confidentiality of the questionnaires data, and participants were thanked for completing the questionnaires. The research protocol was also reviewed and approved by the ethics committee of the vice-chancellor of research. Its ethics code is IR.IUMS.REC.95.207.

**Findings**

Findings show that 37.9% of participants belonged to the 26-30 year age group, 83.4% were male and 16.6% were female. Nearly half (47.5%) of the nurses had work experience of less than five years, and more than 70% worked rotating shifts. Other demographic variables include marital status (66% were married), educational level (94% had a first nursing degree), organisational rank (92.1% were nurses) and employment type (37.6% were contractual).

Table 1 shows the difference between the hospitals in terms of EI and its four dimensions, and the variable of communication skills. The mean total score of all nurses in the EI component was estimated to be 78.31, which is optimal considering the possible score range of 0-112.

Among the four dimensions, the highest and lowest scores were in the self-awareness (20.83) and self-management (18.19) dimensions. The mean score of communication skills was 70.91, which is a desirable score considering the range is 0-96. Considering F statistics, there was a significant difference in the EI score, and the dimensions of self-awareness, self-management and social awareness. There was also a significant difference between the hospitals in terms of mean total score of communication skills. The social skills dimension of EI was the same among nurses working in all the hospitals in the study.

Table 2 shows the correlation between demographic variables and total score of EI. The difference in EI scores between men and women is not statistically significant, nor is the difference in scores between participants with higher and those with lower levels of education.

The results show, however, that participants over the age of 35 had higher EI than those in other age groups ( $P=0.00$ ,  $r=0.114$ ), as did those with more work experience, and that the differences are statistically significant ( $P=0.00$ ,  $r=0.138$ ).

Table 3 shows there is a strong and significant relationship between the total score of EI and communication skills. The self-awareness and social skills dimensions had the strongest ( $P<0.00$ ,  $r=0.619$ ) and weakest correlations ( $P=0.00$ ,  $r=0.497$ ) respectively. The main hypothesis of the study is a significant and strong correlation between total EI score and participants' communication skills ( $P=0.00$ ,  $r=0.795$ ).

Figure 1 shows the relationship between EI and communication skills as a regression line. Based on the distribution of points there is a positive and significant relationship between EI and communication skills. This indicates that increasing EI levels have led to an improvement in the communication skills of nurses working in the EDs of hospitals affiliated to Ardabil University.

**Key points**

- There is a positive relationship between nurses' emotional intelligence (EI) and communication skills
- It is essential to provide training in communication skills and strengthen the different dimensions of EI in nurses to improve healthcare outcomes
- EI can have a positive effect on job satisfaction and quality of services

**Table 1. Mean difference between the four dimensions, and total scores for emotional intelligence and communication skills, in the hospitals studied**

Emotional intelligence areas	Mean	Standard deviation	Levin test	F	P-value
Self-awareness	20.83	3.94	12.3 (Heterogeneous)	3.63*	0.00
Self-management	18.19	4.05	16.48 (Heterogeneous)	4.96*	0.00
Social awareness	19.40	3.25	5.91 (Heterogeneous)	2.53 <sup>†</sup>	0.02
Social skills	19.89	4.03	0.56 (Homogenous)	1.31	0.20
Total	78.31	12.88	0.21 (Heterogeneous)	3.58*	0.00
Total score of communication skills	70.91	12.62	0.21 (Homogenous)	5.75*	0.00

\*Is significant at the 0.01 level, <sup>†</sup>Is significant at the 0.05 level.

**Table 2. Correlation between demographic variables and participants' emotional intelligence**

Variables	Subgroup	Mean of emotional intelligence	Standard deviation	P-value
Sex	Women	78.12	8.69	0.537
	Men	79.13	5.96	
Age (years)	<25	76.18	8.51	0.00
	25-35	77.12	5.16	
	>35	81.11	2.55	
Education	Undergraduate	78.13	28.06	0.876
	Postgraduate	78.8	9.58	
Employment history (years)	<5	77.11	21.61	0.00
	5-10	78.14	8.27	
	>10	79.10	4.44	

**Discussion**

The study shows a strong significant relationship between EI and its related dimensions, and nurses' communication skills. Nurses with higher levels of communication skills have higher levels of EI and its dimensions, and therefore provide services that satisfy patients' needs while experiencing greater job satisfaction (O'Boyle et al 2011). Higher EI increases self-efficacy and therefore helps nurses fulfil their duties with enhanced occupational skills (Bar-On and Parker 2000, O'Boyle et al 2011).

The results of a study of dentists (Allen et al 2013) shows that EI can improve work-family conflict management skills, while a study of the relationship between EI and nurses' communication skills with patients (Choi et al 2015) shows a significant

and strong relationship between EI and communication skills. This study also investigated the relationship between EI dimensions and nurses' communication skills, and the findings are consistent with other studies (Amraei et al 2011, Lee and Gu 2013, Suhaimi et al 2014, Choi et al 2015, Fathi et al 2017).

In this study, the total EI score was estimated to be at the optimal level and the mean self-awareness score was higher than the scores in the other three dimensions of EI, which is consistent with other research (Aliasgari and Farzadnia 2012, Lee and Gu 2013, Suhaimi et al 2014, Choi et al 2015). Furthermore, the score for communication skills was estimated to be 'very desirable', which is consistent with findings from other studies (Karimi Motaghi et al 2013, Safari et al 2014, Suhaimi et al 2014, Choi et al 2015).

In this study, EI scores and communication skills scores were higher among men than women, but the difference is not significant. This finding is consistent with the results of Goleman's (2006) and of Petrovici and Dobrescu's (2014) studies, but inconsistent with Mayer et al's (2008). Other studies have shown that women have better communication skills and more EI than men (Bar-On and Parker 2000, Mayer et al 2014).

The study found differences between level of education and work experience, and EI score and communication skills. The difference for education is not significant, however, which is consistent with other work (Raeissi et al 2010, Karimi Motaghi et al 2013, Kezar et al 2015). Previous research shows that people's communication skills develop and increase with age (Bar-On and Parker 2000, Raeissi et al 2010, Safari et al 2014), a finding that also applies to EI. In this study, communication skills were found to have increased with age but not significantly. However, there is a significant difference in EI between different age groups, which suggests EI and communication skills can be acquired and used over time.

**Limitations**

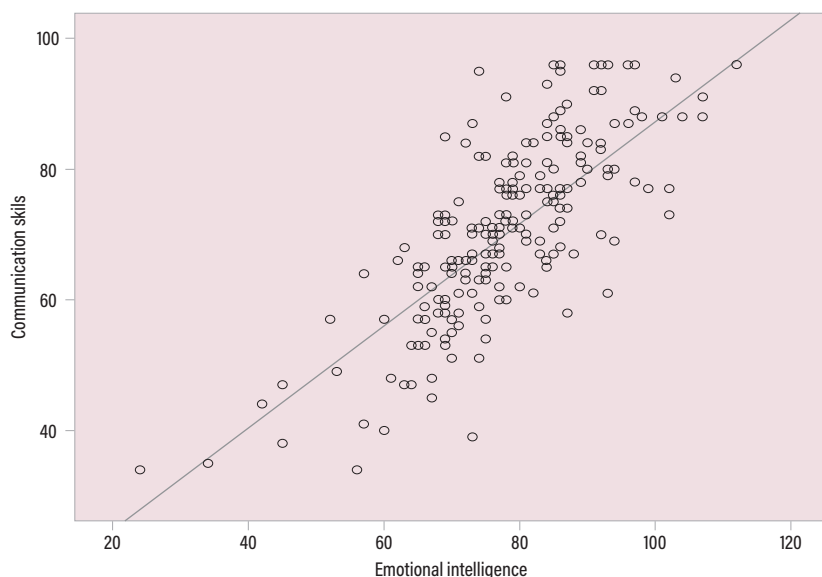
The study's limitations are that it was conducted only in Ardabil, a northwest province of Iran, and included hospitals with different specialties, which could affect generalisation of the findings. The authors tried to control these limitations with a greater sample size from different wards. Due to the importance of the study's topic, the authors recommend undertaking similar research in different geographical locations and hospitals.

**Table 3. Correlation between emotional intelligence and its dimensions with communication skills**

Emotional intelligence areas	Minimum	Maximum	Correlation	P-value
Self-awareness	5	28	0.619*	0.00
Self-management	8	28	0.530*	0.00
Social awareness	5	28	0.526*	0.00
Social skill	6	28	0.497*	0.00
Total	24	112	0.795*	0.00
Total score of communication skills	34	96	-	-

\*Is significant at the 0.01 level

**Figure 1. Regression line of correlation between emotional intelligence and communication skills**



## Conclusion

Research shows the effect of education on the promotion and improvement of communication skills. Some authors recommend that clinical education should promote EI and, as this study shows, enhancing communication skills can improve nurses' EI. It is essential, therefore, to provide training in communication skills to strengthen the different dimensions of EI in

nurses. This could have a positive effect on health system outcomes by increasing nurses' effectiveness and efficiency, reducing stress and increasing levels of personal satisfaction. It is recommended that communication skills training is taken seriously by the ministry of health and care services in Iran, and that policymakers include measures that create and improve the facilities and conditions required for this training.

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