

*Original Article***Assessing emotional intelligence and its relationship with demographic factors of nursing students**

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Abstract

BACKGROUND: Emotional intelligence is a social intelligence identifying the ability to adjust one self's emotions with others. Emotional intelligence is considered as an important characteristic for nurses. The aim of this research was to assess the emotional intelligence of nursing students and its relation with some personal and social.

METHODS: This was a descriptive correlation study. The study population included all the nursing students in Tabriz School of nursing and midwifery (144) selected by sample using census method. To assess the emotional intelligence, we used BarOn EQ-i, which includes 90 questions in 5 categories and 15 scales scoring in a range between 90 and 450. In addition, some personal and social demographic data were gathered from the students' educational files. Data were analyzed using SPSS-13 and descriptive and inferential statistics.

RESULTS: The students' mean score of emotional intelligence was 332.08 ± 39.08 . There was no significant relation between emotional intelligence score and sex, education, and students' interest in nursing. However, there was a significant relation between emotional intelligence score and the students' satisfaction of their family socio-economic status.

DISCUSSION: Emotional intelligence of nursing students in Tabriz School of Nursing and Midwifery was in a good level. Considering the significant relation between satisfaction with life and emotional intelligence, it seems that improving the quality and quantity of counseling programs for increasing the students' satisfaction from life, may improve the students' emotional intelligence. However, lack of research evidences about relationship between demographic factors and emotional intelligence needs further studies.

KEY WORDS: Intelligence, emotional intelligence, nursing students.

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Emotions is an important part of life which seriously affect all aspects of life. Almost in every experience there is an affectionate emotional aspect and managing them can have a significant role in general health and particular emotional health.¹ Paying attention to emotions, using them in human relationship, understanding one self and others emotions, self-restraint, controlling instantaneous desires,

sympathy with others, and using emotions in thinking and understanding are among subjects discussed in the field of emotional intelligence.² Most professionals believe that emotional intelligence is one of the newest innovations of human to understand the relationship of thinking and emotions.³ The main reason to pay attention to emotions and emotional intelligence is that some of the researchers search for some me-

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thods to show that there are factors other than cognitive abilities, affecting people's progress.⁴ Using emotional intelligence in various fields such as psychology, education and interpersonal communication is evidence that has developed along with cognitive intelligence.⁵

Emotional intelligence is the ability to understand effectively, express and manage ones' own emotions and those of others in a positive constructive way.⁶ Salovey and Mayer believe that emotional intelligence is the ability to understand and control ones' own emotions and those of others to distinct them from each other as well as the ability to conduct thinking and action.⁷

The great volume of researches on the topic in recent years have showed a direct relation between emotional intelligence and the positive organizational outcomes, such as better functioning, appropriate team activities, more effective interactions, better solution of conflicts and lower levels of tension. Therefore, in order to administer complicated clinical environments and answer caring needs of their patients, modern health systems need nurses who can make a good relationship with their patients, be aware of their emotions and those of their patients and have good psychological skills. In such a world, having high emotional intelligence is an important characteristic for a good nurse.⁸

In recent years, there has been increasing attention to assessing health care personnel's emotional intelligence.⁹ However, there is few studies on nursing students' emotional intelligence in the world¹⁰ and no study has been done in Iran on this subject.

Assessment students' emotional intelligence is important because studying at the university is a critical period of life for efficient active young human resources of every society and it is usually associated with great changes in their social and human relationships. Lack of attention to this period of life can cause or intensify psychological disorders and lead to failure in social and educational performances.¹¹

Therefore assessment of emotional intelligence is an important factor in determining students' adjustment and educational achieve-

ments. Many studies showed that emotional intelligence is better than cognitive intelligence in predicting the students' success in their education and career.¹² This study aimed to assess emotional intelligence and its relation with some personal and social factors in nursing students of Tabriz School of nursing and midwifery. The research questions were:

1. What is the emotional intelligence of nursing students?
2. What is the relation between students' emotional intelligence and their individual and social factors?

Methods

This was a descriptive correlation study carried out in second semester of 2007-08 educational year, assessing the emotional intelligence of nursing students in the Tabriz School of nursing and midwifery and the role of demographic factors in it. The study population included all the nursing students in Tabriz School of nursing and midwifery (144) all selected by sample using census method. Inclusion criteria were: being a student of nursing in 2nd to 8th semester (daily or nightly) in the Tabriz School of nursing and midwifery. The exclusion criteria included being an exchange student or moved from another school or university, and unwilling for participation in the study.

To assess the emotional intelligence, we used a two-part questionnaire. First part included demographic data which were completed by students' reports or from the data in students' educational file. Second part was BarOn EQ-i, which includes 90 questions in 5 categories and 15 scales. The five categories are Intrapersonal (Self-Regard, Emotional Self-Awareness, Assertiveness, Independence, and Self-Actualization), Interpersonal (Empathy, Social Responsibility, and Interpersonal Relationship), Stress Management (Stress Tolerance and Impulse Control), Adaptability (Reality Testing, Flexibility, and Problem Solving), and General Mood Scale (Optimism and Happiness). Each question was designed based on a 5-point Likhert scale scoring from 5 to 1 (completely agree = 5 to completely disagree = 1). The total score was the

sum of all 14 scales scores. The minimum and maximum scores for each scale were 6 and 30 respectively and the maximum and minimum total score was 90 and 450 respectively.¹³ This questionnaire was standardized to be used in Iran; its content validity was reported to be acceptable and its reliability was 0.93 by Cronbach's alpha.¹⁴ It was used many times in Tabriz and therefore, the validity and reliability was not determined in this study.^{1, 11, 15}

The Questionnaires were distributed among students in their classroom or clinical environments and after explaining the aims and methodology of the study, they were asked to take the questionnaire home and return them back after completing. They had the option to complete the questionnaire or not and they were assured of the privacy of their personal data.

Data were analyzed using SPSS-13. For each student, the total score of emotional intelligence and the score of each scale were calculated. To analyze data, descriptive statistics (frequency, mean scores and standard deviation) and inferential statistics (independent t-test, ANOVA and Pearson correlation coefficient) were used.

Results

All 144 nursing students of Tabriz School of nursing and midwifery completed the emotional intelligence questionnaire. The mean age of students was 21.03 ± 2.17 . 106 students (73.6%) were female and 90 (62.5%) were nightly students. 26 students (18.1%) were in 2nd semester, 32 (22.2%)

3rd semester, 25 (18.1%) 4th semester, 29 (18.1%) 6th semester and 32 (22.2%) were in 8th semester. 115 students (79.9%) reported that they were satisfied with the socio-economic status of their family and 92 (67.6%) reported that they were interested in nursing. 44 students (31.42%) were first child in the family, 56 (40%) were middle child and 40 (28.58%) were the last child.

Table 1 shows the mean of total scores and scale scores of the emotional intelligence.

Table 2 explains the effects of personal and social variables in the students' emotional intelligence scores. This table shows that there is no significant difference between emotional intelligence of female and male students ($p = 0.33$), daily and nightly students ($p = 0.78$), and students interested or not interested in nursing ($p = 0.09$). Further evaluation also showed no significant difference among above groups' emotional intelligence categories and scales. However, further evaluations showed a significant difference between the emotional intelligence scores of students who were satisfied with their family socio-economic status and those who were not satisfied with it ($p = 0.004$). Also, there was a significant difference between students' emotional intelligence in all categories except empathy, responsibility, flexibility, self-regard, interpersonal relationship and emotional self-awareness. And in all scales, the emotional intelligence of students who were satisfied with their family status was higher than those who were not satisfied.

Table 1. Mean scores and SD of emotional intelligence and its scales

Category	Mean \pm SD	Category	Mean \pm SD
Total score	332.08 \pm 39.80	Problem Solving	23.15 \pm 3.18
Happiness	22.96 \pm 4.35	Independence	21.97 \pm 3.17
Stress Tolerance	19.34 \pm 4.95	Self-Actualization	23.08 \pm 3.37
Emotional Self-Awareness	22.23 \pm 3.65	Reality Testing	20.16 \pm 3.96
Interpersonal Relationship	23.59 \pm 3.40	Optimism	22.91 \pm 3.94
Self-Regard	22.95 \pm 3.50	Impulse Control	19.22 \pm 5.24
Flexibility	19.43 \pm 3.81	Responsibility	25.76 \pm 2.66
Empathy	24.79 \pm 3.07	Assertiveness	20.47 \pm 3.85

Table 2. Comparison between emotional intelligence of nursing students based on their demographic characteristics

Variables	Groups	Mean and SD	Scales
Sex	Male	337.50 ± 33.62	t = 0.97, df = 142
	Female	330.14 ± 41.77	P = 0.33
Course type	Day shifts	333.27 ± 42.62	t = 0.28, df = 142
	Evening shifts	331.36 ± 38.24	P = 0.78
Satisfaction with the socio-economic situation of the family	Satisfies	336.39 ± 40.10	t = 2.94, df = 129
	not-satisfies	305.43 ± 33.57	P = 0.004
Interest in nursing studies	Interested	335.72 ± 40.10	t = 1.68, df = 134
	Not-interested	323.40 ± 39.65	P = 0.09

The emotional intelligence of students of different semesters was compared by ANOVA, which showed no significant difference between them ($f = 1.31$, $p = 0.26$). Also, ANOVA showed no significant difference among the emotional intelligence of students in different birth ranks ($f = 1.59$, $p = 0.20$). Moreover, the Pearson correlation coefficient showed no significant relation between age and emotional intelligence ($r = -0.06$, $p = 0.45$) or between mean of school grades and emotional intelligence ($r = 0.15$, $p = 0.12$).

Discussion

In replying to the first research question, findings of this study showed that the mean score of emotional intelligence of nursing students in Tabriz school of nursing and midwifery was 332.08 (± 39.08). In a study by Samuie et al on standardization of BarOn EQ-i among students of Isfahan University of Medical Science and Islamic Azad University of Khorasgan, the mean score of this questionnaire was 313.6 (± 37.1) among the students of these universities.¹⁴ Therefore, the mean score of emotional intelligence of nursing students in Tabriz school of nursing and midwifery was a little higher than the students of these universities. Besides, the study of Zarrati et al in 2006 on 232 undergraduate students of Ferdowsi University reported the mean score of 415.25 for the emotional intelligence of these students.¹¹ It should be mentioned that they used BarOn questionnaire with 133 questions which has not standardized for Iran yet and since it has more questions, the scores are higher than the 90-question questionnaire.

To reply the second research question, findings showed that the emotional intelligence of male students was a little higher than females, but this difference was not significant. The results of a study by Yusefi et al also showed no significant difference between the emotional intelligence of male and female students.^{11, 16} However, some studies in other countries showed that the emotional intelligence of women was higher than men,^{4, 5} which can be related to cultural differences, because in Iranian society females have been learnt to suppress their emotions.¹¹

An interesting finding of the present study was that there was no significant difference between the emotional intelligence of daily and nightly students. This finding can be an answer to the question of many nursing teachers who find no difference in the clinical working of nursing students in spite of their different grades in the Konkoor (national university entering examinations) and even in some nightly students work better. This study showed that the emotional intelligence of those students who reported their interests in nursing studies was higher than those who were not interested (even though this difference was not significant). Perhaps, the reason is related to the fact that emotional intelligence is one of the determining factors of people's adjustment and therefore, those who have more adjustment abilities have higher emotional intelligence.⁵

This study had some limitations. Even though all the students of Tabriz school of nursing and midwifery participated in the study, they were a small group. Moreover, the relation between emotional intelligence and only a few demographic factors were studied. Therefore,

future studies are recommended to use bigger sample sizes and consider the relationship between more personal and social characteristic of the students with students' emotional intelligence.

The researchers declare that they had no conflict of interest in this study and it was done under the research ethics.

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