



## The Relationship between the Emotional Quotient and Emotional Maturity in Students of Kurdistan University of Medical Sciences

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### ARTICLE INFO

#### Article history:

Received January 12, 2017

Accepted February 22, 2017

#### Article Type:

Original Article

#### Keywords:

Emotional Quotient  
Emotional Maturity  
Students  
Kurdistan

### ABSTRACT

**Background:** Emotional quotient is the ability to manage and control the anxiety, tension, hope and optimism in the face of obstacles on the way of achieving the purpose. The purpose of this research is to investigate the relationship between the emotional quotient and emotional maturity in the students of Kurdistan University of Medical Sciences in 2016.

**Methods:** The present study was a cross-sectional study carried out on 396 students with mean age of (M = 22.14, SD = 21.14). Data was collected through two questionnaires including Bar-On Emotional quotient Inventory (EQ-i) and Emotional Maturity Scale (EMS). The results were analyzed using SPSS version 22 and linear regression and Pearson's correlation tests.

**Results:** The results showed that there's a significant relationship ( $P \leq 0.001$ ) between emotional quotient and emotional maturity, also, between the emotional maturity with the Interpersonal Component ( $P \leq 0.001$ ), Intrapersonal Component ( $P \leq 0.001$ ), Adaptability Component ( $P \leq 0.001$ ), and Stress Management Component ( $P \leq 0.001$ ) And General Mood Component ( $P \leq 0.001$ ).

**Conclusion:** Based on the results of this study, it is proposed that researchers carry out greater studies in students, identify factors associated with emotional maturity and develop precise plans in order to strengthen these factors and increase the rate of emotional quotient in students.

## 1. Introduction

Emotional quotient is the ability to manage and control the anxiety, tension, hope and optimism in the face of obstacles on the way of achieving the purpose. In fact, emotional quotient is a type of social skill, accompanying with people, managing emotions and feelings in the relationships and the ability to persuade and lead others [1].

Emotional quotient is the latest evolution in the field of understanding the relationship between thought and emotion. The term was first proposed in 1990 by Salovey and Mayer. Emotional quotient as an ability including the capacity of perception, expression, understanding, application, and management of oneself and others' emotions

**To cite:** Yousefi F, Baharvand Ahmadi Sh. The Relationship between the Emotional Quotient and Emotional Maturity in Students of Kurdistan University of Medical Sciences. *J Hum Environ Health Promot.* 2017; 2(2):96- 104

(Mayer and Salovey, 1997). Since the basic components of emotional quotient include the ability to understand others' emotions and the ability to adaptively adjust and inhibit oneself and others, it is expected that people with higher emotional quotient have better social adjustment and skills [2,3,4].

One of the consequences of high emotional quotient is emotional maturity. It refers to the ability to lead and facilitate emotional desires to achieve the intended purposes [5].

One of the most important factors for success in life and education is emotional development and maturity. Emotional maturity is a process, in which the individual's personality continuously attempts to psychologically and individually meet the emotional health, more than ever. The seven components of intimacy, empathy, assertiveness, mental stability, independence, mental balance and ability introduce observing the emotional case as a complete definition of emotional maturity. Emotional maturity originates from the realization of perception that nothing or nobody else can hurt, stimulate or make another person angry, unless the person is permitted by that person to do so [6,7, 8].

Emotional maturity is understood as self-control ability, which is the product of thinking and learning. In fact, a person with an emotional maturity is a person whose emotional life is well controlled. The most prominent sign of emotional maturity is the ability to withstand stress, and moreover, indifference to some stimuli that affect the individual and makes him emotional [9].

Numerous studies show a significant relationship between emotional quotient and decision-making power, and emotional quotient greatly contributed to the person in difficult decision-making situations. Also, in another study, they concluded that there is a significant relationship between emotional quotient and communication skills [10,11,12].

Studies relationship between emotional quotient and emotional maturity is important. Because, the importance of emotional quotient is known as a factor for proper adaptability with the changes, and in the meantime, purely rational abilities cannot be a good predictor for success in life. The emotional quotient helps us to identify our feelings and those of others. If the emotional quotient is increased in people then it will most likely affect

them in social life and academic achievements. Research evidence generally indicates a positive and significant relationship between the emotional quotient with various adaptability indicators such as proper social behavior in people, empathy with others, lack of negative interaction with friends, positive communication with others and satisfaction with this relationship [13].

Thus, the main purpose of this study was to determine the relationship between emotional quotient and emotional maturity in students of Kurdistan University of Medical Sciences, i.e. if there is a relationship between emotional quotient and emotional maturity.

## 2. Material and Methods

This study was descriptive - analytical in which sample size was determine by Cochran formula ( $n = z^2 \times p(1-p) / d^2$ ). Also, The study cases consisted of 396 students with a mean age ( $M = 22.14$ ,  $SD = 21.14$ ), 53.3% female and 46.7% male, (Diagram 1), that were selected through stratified random sampling and, according to ratio of population in each faculty at Kurdistan University of Medical Sciences in 9 months from March 2016 to December 2016.

Inclusion criteria included all the students studying at Kurdistan University of Medical Sciences at the time of implementing, study and the exclusion criteria included guest students at Kurdistan University of Medical Sciences and students who were not willing to participate in the study.

Data collection for this study was conducted using two questionnaires as follows:

1. *Bar-on Inventory*: the final version of the Bar-on Emotional Quotient - (EQ-I) was presented in 2002. This questionnaire has 133 questions, and based on Iranian culture, the 90-questions version of it is prepared [14]. This questionnaire has 15 subscales that includes emotional self-awareness, self-esteem, decisiveness, independence, self-actualization, empathy, social responsibility, interpersonal relations, stress tolerance, impulse control, reality testing, flexibility, problem solving, optimism and happiness [14].

2. The Emotional maturity scale: it has been collected from Yashveeringh and Mahesh Bhargava. The questionnaire included 48 questions. The first 10 questions measure the emotional instability criterion, the second 10 questions emotional return criterion, the third 10 questions social inadaptability criterion, the fourth 10 questions the personality breakdown, and the last 8 questions measure the lack of independence. [15]. In addition, this questionnaire was adapted by Iranian culture [15].

2.1. Procedure

First, the arrangements were made through introduction letter by Kurdistan University of Medical Sciences to the study samples (5 Faculties including Medicine, Dentistry, Nursing and Midwifery, Health and Paramedical Next, the participants in this study were fully notified and their informed consents to were taken. Then, 396 copies of questionnaires were distributed in the classroom and in groups and full filling them. Next, the data obtained from the questionnaires were entered into the SPSS -20, and then using the rate and %ages to calculate descriptive purposes and analyze the nominal variables we used linear regression and Pearson correlation coefficient.

3. Results and Discussion

The descriptive results of this study showed that 185 subjects (46.7%) were male and 211 subjects (53.3%) were women. The results showed that most of the subjects were in the age group 21-23 years (58.6%). The most frequency of the study population in terms of the type of faculty were 132 subjects (33.3%) in the Faculty of Medicine and the lowest frequency was 46 subjects (11.6%) in the Faculty of Paramedical. The most frequency of the study population in terms of Grade point average(GPA) was 183 subjects (46.2%) in the range 12-15, and the lowest frequency was 3-4 subjects in the range 10-12, and more than 19 (0.75 - 1.05%) (Table 1).

The results of the study showed that 35.4 % of subjects had high emotional quotient and 18.9 % had an average emotional quotient, and 45.7 % had a low emotional quotient. Also 1% of

respondent had a very stable and relatively stable emotional maturity, 3.03 % had unstable emotional maturity and 95.97 % had a very unstable emotional maturity (Table 2).

Table 1: Frequency distribution of demographic variables of subjects.

Demographic variables		Frequency	Percent	
Sex	Male	185	46.7	
	Female	211	53.3	
Age	18-20 years	82	20.7	
	21-23 years	232	58.6	
	24-26 years	73	18.4	
	27-29 years	7	1.7	
	More than 29 years	2	0.6	
Field of Study	Medicine	Male	66	16.65
		Female	66	16.65
	Dentistry	Male	46	11.6
		Female	20	5.1
	Nursing and Midwifery	Male	30	7.57
		Female	58	14.65
	Paramedical	Male	22	5.55
		Female	24	6.06
	Health	Male	20	5.05
		Female	44	11.11
GPA score	10-12	3	0.75	
	12-15	183	46.2	
	15-17	177	44.7	
	17-19	29	7.3	
	Higher than 19	4	1.05	

The lowest percentage of emotional quotient 18.9% was related to average quotient, and the highest emotional quotient 45.7% was related to low quotient, and the lowest percentage of emotional maturity was related to highly stable and relatively stable, and the highest emotional

maturity was related to very unstable.

**Table 2:** Frequency distribution of emotional quotient and emotional maturity in the subjects.

Emotional maturity	Frequency	Percent	Emotional maturity	Frequency	Percent
High emotional quotient	140	35.4	Very stable	2	0.5
average emotional quotient	75	18.9	Relatively stable	2	0.5
Low emotional quotient	181	45.7	Unstable	12	3.03
			Very unstable	380	95.97

According to Table 3, there's a significant relationship between variables of emotional quotient (as predictor variable) and emotional

maturity as a predictor variable [ $F = 69.066$ ,  $df (1)$ ,  $P = 0.0001$ ].

**Table 3:** Results of correlation coefficient regarding the relationship between emotional quotient and emotional maturity.

Variable	unstandardized coefficients		Standardized coefficients	t-value	The significance level (P)
	The beta value	The beta value	The beta value		
Constant coefficient	59.963			4.665	0.0001
Emotional quotient	0.441	0.368	0.368	8.311	0.0001

The results also showed that there is a significant positive relationship between the Intrapersonal Component ( $r = 0.73$ ,  $p \leq 0.0001$ ), Interpersonal component ( $R = 0.72$ ,  $p \leq 0.0001$ ).

Adaptability Component ( $R = 0.72$ ,  $p \leq 0.0001$ ), Stress management component ( $R = 0.65$ ,  $p \leq 0.0001$ ) and General Mood Component ( $R = 0.56$ ,  $p \leq 0.0001$ ) with emotional maturity (Table 4).

**Table 4:** Inter correlations of the variables (n = 396).

Variables	Intrapersonal component	Interpersonal component	Component Adaptability	Stress management component	General Mood Component
Components of emotional maturity					
Intrapersonal	1	0.738 **	0.728 **	0.650 **	0.563 **
Interpersonal	0.338 **	0.738 **	1	0.650 **	0.597 **
stress management	0.329 **	0.728 **	0.746 **	1	0.700 **
Adaptability	0.325 **	0.650 **	0.650 **	0.746 **	1
General mood component	0.310 **	0.563 **	0.597 **	0.700 **	0.632 **

\*\* Correlation is significant at the 0.01 level (2-tailed).

This study aimed to investigate the relationship between emotional quotient and emotional maturity in 2016 in Kurdistan University of Medical Sciences. In our study, 53.3 of the participants were female and 46.7% were male.

The study subjects aged from 18 years to more than 29 years, most of the subjects were in the age group 21-23 years (58.6%). Our study population was the whole students of the faculties in University of Medical Sciences and highest frequency was related to medical students with 33.3 % and lowest frequency was related to Paramedicine students with 11.6 %. In this study, we examined the students' GPA, and the results showed that the highest frequency ranged 15-17 with 44.7% and lowest frequency was related to 10-12 and above 19. In our study, 35.4 % had high emotional quotient and 18.9 % had an average emotional quotient and most of the subjects 45.7 % had low emotional quotient. Moreover, 1% of cases had a very stable and relatively stable emotional maturity, 3.03 % had unstable emotional maturity and 95.97 % had a very unstable emotional maturity .

The first hypothesis of this study was that there is a significant relationship between the emotional quotient and emotional maturity of the subjects.

The results of linear regression analysis regarding the relationship between emotional quotient emotional maturity of the students in Kurdistan University of Medical Sciences in 2016 showed that there's a statistically significant relationship between the emotional quotient variables with emotional maturity ( $p = 0.0001$ ), and our first hypothesis is confirmed, which is consistent with the results of studies [16, 17, 18].

In the study of Bakhshi et al. the results showed that there's a significant relationship between emotional quotient and mental health of the students, and the first hypothesis is confirmed, which is consistent with our study. In this study, it was noted that students with higher emotional quotient have greater control ability in the face of stressors and can manage their mental stress and this ability helps them to be flexible and control their emotions in the face of the problems [19]. In the study of Ghadri et al. their results showed that there is a significant positive relationship between the emotional maturity, self-knowledge, so students enjoying high emotional maturity, and self-knowledge have a higher social security feeling and there's a significant and positive relationship between them [20]. It means that those who have lower emotional maturity and self-

knowledge have a lower feeling of social security. Investigating the relationship between self-knowledge and emotional maturity showed that there is a significant positive relationship between these two variables at the level of 1% [20].

Study results of Sheikh al-Islam et al. showed that there's a statistically significant relationship between emotional quotient and students' academic satisfaction. In the interpretation of these findings, it is said that students who have high emotional quotient, have the ability to perceive, facilitate, recognize and regulate theirs and others emotions, therefore, they will have a positive and more effective interaction with teachers, and in the face of tensions in the school, can maintain a positive interaction between teachers and students through high emotion understanding [21].

Another hypothesis of our study was the relationship between emotional quotient and emotional maturity. In this study, the relationship between subsets of emotional quotient and emotional maturity was investigated, and the results are as follows: In the present study, the relationship between intrapersonal component that includes (emotional self-awareness, assertiveness, self-esteem, self-actualization, and independence) with the emotional maturity of the subjects was investigated. These results indicated that there's a significant correlation between intrapersonal component with emotional maturity ( $P = 0.0001$ ), the results of this study are consistent with previous studies [21, 22, 23, 24].

In the study of Bakhshi et al. a significant relationship was found between the components of emotional quotient and mental health. They stated that for maintaining mental health, they need self-esteem, high emotional self-awareness, effective problem solving ability, assertiveness [19]. These results show that the higher the level of emotional self-awareness, assertiveness, self-esteem, self-actualization, and independence, the higher would be emotional maturity .

In the study of AslFattahi et al., the study results showed that both emotional quotient and self-

esteem are significant predictors for social skills and their relationship with social skills is positive. Also, the higher are emotional quotient and self-esteem, the higher would be social skills [25].

Livarajani and Ghaffari noted in their study that emotional quotient has a significant effect on occupational and educational success. According to him, in successful implementation of some occupational and educational assignments, the role of emotional quotient is even higher than cognitive quotient [23].

The results showed that there was a significant correlation between the interpersonal component that include (empathy, social accountability, and interpersonal relations) with emotional maturity in subjects ( $P = 0.0001$ ).

In the study of Ghaderi et al. it was noted that the psychological factors of the youths and adolescents such as emotional maturity and adolescence age and social security should be promoted in order to establish motivations for participation and cooperation at a national level. The capacity of groups to act in favor mass should be increased as well, and everyone should achieve self-knowledge to gain emotional maturity and get accepted in the community resulting in cohesion and finally establishment of social security [20].

In this study, there is a statistically significant correlation between adaptability component includes (problem-solving, realism, and flexibility) with the emotional maturity of subjects ( $P = 0.0001$ ). People with higher emotional quotient, perceive the messages better in interpersonal relations, have better listening skills, higher insight towards their relationship process with others, more certainty in their relations, and finally will be more successful in their relationships with others [20]. The higher is the adaptability in people the more coherent will be their maturity. Employing emotional quotient is necessary in order to understand and control emotions and personal feelings and the feelings of others. Vayzng (2000) believes that emotional quotient is the employment of emotions and

feelings against directing the behavior, effective communication with friends, colleagues, supervisors, customers, and the manner of using time, and manner of doing works to promote productivity. In the study done by Nasser and et al. on 15 teams comprised of 5-15 people on the effect of emotional quotient on the team work, they concluded that there's a significant correlation between emotional quotient and teamwork [26].

In the present study, there was a significant correlation between the component of stress management (including stress tolerance and impulse control) with the emotional maturity in subjects ( $P = 0.0001$ ). The more stress tolerance and impulse control is in people, the greater will be their mental maturity, and in dealing with issues and problems can take more rational decisions. People with higher emotional quotient have an importance for emotional reactions and have a higher flexibility in their feelings. They feel responsible and step on the path to success and stress tolerance and impulse control will be easier for them .

In the present study, there is a statistically significant correlation between the components of general mood including (optimism and happiness) with the emotional maturity of subjects. ( $P = 0.0001$ ). So that the people with higher maturity, will have a higher rate of optimism and will have a greater satisfaction in life. Sheikh al-Islam et al. noted in their study that optimism creates positive attitude to education in the student [21]. In studies investigated [27, 28, 29] a significant relationship is observed between emotional quotient and activity levels of the participants. The study results of Anna Maria D Fabio and Maroon Ikni indicates a significant relationship between emotional quotient and decision-making power and emotional quotient greatly contributes people in difficult decision-making [10].

In a study concluded that there is a significant relationship between emotional quotient and communicational skills. They also found a positive and significant relationship between demographic

variables (age and sex) and the emotional quotient [29].

#### 4. Conclusion

In a general conclusion, we can say that today, many scholars believe that if a person is emotionally enabled, then he can better face the challenges of life, and emotional competences play an effective role in the diagnosis of emotional responses in the face of everyday events, expansion of the scope of insight and positive attitude about the events and emotions. Thus, people with the ability to identify, control, and use these emotional competences have a greater social support, and greater mental health and satisfaction.

According to the information obtained from this study, emotional quotient has had a significant relationship with the emotional maturity of the subjects. In this study we've seen that emotional quotient is effective in strengthening the emotional maturity of the subjects.

#### Acknowledgment

Hereby we extend our appreciation to the Research Council of Medicine faculty for approving this thesis as well as the other faculties for their necessary cooperation in the implementation of this study. It should be noted that this study is extracted from the Ph.D. thesis of Ms. Shohreh Baharvand Ahmadi.

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