



## Study of correlation between emotional intelligence and academic achievement among Iranian students in Zabol University of Medical Sciences, 2017

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### General Note

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## ABSTRACT

Academic life is one of the most important dimensions of life of individuals that has a great impact on other aspects of life. Among these, one of the basic problems of educational life of each country and educational system in each country, is the problem of academic failure and low level of academic performance of students and students in that country. Emotional intelligence has been considered as a new topic in the field of psychology. The results of this study showed that there is a reverse and significant relationship between emotional intelligence and age with academic achievement. We could not find any relationship between emotional intelligence and academic achievement with marital status in non-syllabus classes. There was also no statistical relationship between academic achievement and gender. : Based on the findings and considering that part of the emotional intelligence can be learned, it is suggested that, in academic settings, along with attention to intelligence and cognitive talents, the inclusion of the concept of emotional intelligence in the student's curriculum in the form of Educational sessions on social skills and life skills helped them to better cope with educational and social pressures and less academic failure.

**Keywords:** Academic Achievement, Emotional Intelligence, Zabol University of Medical Sciences.

**Abbreviations:** Pearson correlation coefficient, Regression Analysis and Independent T-test

## 1. INTRODUCTION

Nowadays, academic achievement and prevention of students' academic failure are one of the most important concerns of university administrators, students and their families (Logan, 1995). Emotional intelligence is one of the success factors in educational, professional and social environments, and it is possible to predict success in different aspects of life, because it shows how the person of knowledge is used in different situations (Mayer and Fletcher, 2007) Emotional intelligence is an appropriate field for creating an environment conducive to learning and communicating, in which individuals freely express their needs and expectations to gain support from others. Factors such as emotional intelligence, creativity, motivation, and success are referred to as variables involved in academic achievement (Hooshmandan Moghaddam Frad et al., 2017). Studies have predicted that each person accounts for about 80% of his life's successes due to his emotional intelligence, and 20% of these successes are the result of an IQ (Ghader, 2014). With emotional intelligence, man develops his own self-discipline and stability, in such a way that, basically, a clever emotional person, experiences less negative experiences in his life (Hakim and Ezhehei, 2004). Emotional intelligence includes components such as self-esteem, social consciousness, self-awareness, self-control and social skills. The definition that Goleman considers to be self-conscious is to: Deep and clear understanding of emotions, emotions, weaknesses, strengths, needs and backgrounds. From Glenn's point of view, self-monitoring is not very convenient, and self-control is better in the absence of emotional fireballs. That is, the less intense the feeling, the better the self-control is. Goleman believes that the sense of responsibility in the environment and the kind of dealing with individuals is influenced by individual attitudes, and the more the content of thought in relation to the responsibility that a person accepts is purer, the sense of responsibility becomes more and better (Goleman, 1995). People only through high social skills know where and what times show emotional states from themselves and as these problems appear, there are a lot of people in society, especially today's life, which people need to meet throughout the day to meet the needs. They are faced with different people and each situation has its own requirements. We deal with different people during the day. In each encounter, we send a special emotional message to the opposite. It's natural that the skills to send more message types it can be more easily influenced by the other party (Mayer and Fletcher, 2007). Emotional Intelligence Theory is introduced by Meyer and Salovey, and they refer to emotional intelligence: the ability to properly stimulate understanding, express emotions, and the ability to use emotions to facilitate thought, as everyone finds out in these abilities can be learned. Therefore Cultural and environmental content has an extraordinary effect on any of these abilities (Salovey and Mayer, 1990). Studies have shown the role and importance of emotional intelligence in various aspects of people's lives, including education, occupation, social environment and mental health, but our educational system still emphasizes IQ and its impact on different aspects of our lives. Slowly Therefore, performing such researches in the justification of educational authorities in order to pay attention to emotional intelligence as an essential component for improving the performance of students seems necessary. Therefore, the researcher in this article investigates the relationship between emotional intelligence and academic achievement of Zabol medical students in order to

improve their skills in students and to better deal with psychological and educational pressures and less emotional and educational problems. Also, teaching social and emotional skills along with teaching content will provide students with a great deal of other abilities.

## 2. MATERIALS AND METHODS

This study was descriptive-analytic and cross-sectional in the first semester of 2016-17. The statistical population includes 1700 students of Zabol University of Medical Sciences (395 students of Faculty of Health, 343 faculties of paramedical sciences, 272 medical faculty, 265 faculty of pharmacy and 425 faculty of nursing and midwifery) who are studying during the research. The samples were determined using Krejcie and Morgan table of 313 people. The estimated number of samples was determined by random sampling method with proportional allocation from ( $n_h = \frac{N_h}{N} * n$ ) health, paramedical, medical, pharmacy and nursing schools and Midwifery was 73, 63, 50, 49, and 78 respectively. The data collection tool was a two part questionnaire. In the first part, personal characteristics of the students (age, gender, educational level, marital status and participation in non-teaching and grade classes) were mentioned and the grade score was considered as the academic performance. The second part contains questions about emotional intelligence measurements, which was used to test the Schering Emotional Intelligence Test. This test was developed by Schering in 1996 based on Glenn's (1995) theory and was standardized by Mansouri in February 2001 in Iran on a master's degree at Allameh Tabatabai University. The main form consists of 70 questions which assesses several aspects of emotional intelligence (self-awareness, self-regulation, motivation, empathy, and social skills in the job), and after the normalization in Iran a number of questions for various reasons Such as lacking the required specifications of the question, the length of the question, the non-compliance with the Iranian culture was eliminated, and finally the normative test has 33 questions. This test measures five subscales of emotional intelligence that are self-awareness (8 questions), self-control (6 questions), self-motivation (7 questions), social alertness (7 questions), and social skills (5 questions).

The criteria for measuring and rating the responses were based on Likert scale of 5 degrees (A = 1; B = 2; C = 3; D = 4; E = 5). If the subject chooses the option a in reverse questions, then the grade 5 is taken and if he chooses the options b, c, d, e, he will score grades 4, 3, 2, 1, respectively. The highest score in this test is 165 and the lowest score is 33.

To determine the formal and content validity, the questionnaire was distributed to a number of faculty members who were approved by them. In the next step, the questionnaires were delivered randomly to 30 students and then, using Cronbach's alpha coefficient, its internal reliability (90%) was confirmed. Also, Mansouri (2001) at his Master's Degree Master's Degree obtained an internal coordination of this scale of 0.85 showing the desirability of the test. The questionnaires were provided to the students by coordinating the unit after the completion of the class time, and then completed by the researcher. In order to observe ethical considerations, participation in the research is optional and the personal characteristics of the individuals are not considered in the questionnaire.

After completing the questionnaires and collecting data, SPSS software version 19 was used to describe the data (abundance, percentage, mean and standard deviation) and independent t-test, one-way ANOVA, Tukey test, regression and Pearson correlation coefficient were used for analysis. Significance was determined at  $P < 0.05$  level

## 3. RESULTS

Of the 313 students participating in the study, 165 (52.7%) men and 148 (47.3%) women were enrolled in the study. The mean and standard deviation of age and their mean were  $21.45 \pm 1.64$  and  $15.48 \pm 1.86$  respectively. The majority were single and undergraduate students. 128 (40.9%) had not participated in non-teaching classes, and 185 (59.1%) had participated in such classes. The mean of emotional intelligence was  $106.87 \pm 12.68$ . The highest mean in emotional intelligence subscales was self-awareness subscale ( $28.87 \pm 41.44$ ), self-control ( $21.72 \pm 14.3$ ), self-control ( $21.21 \pm 4.14$ ), consciousness Social ( $19.3 \pm 3.64$ ) and social skills ( $15.75 \pm 3.06$ ).

According to Pearson correlation coefficient, there was a significant and inverse relationship between social consciousness ( $r = -0.112$ ), social skills ( $r = -0.135$ ) and age ( $r = -0.335$ ) with mean score ( $p$ -value  $< 0/05$ ). An increase in social consciousness, social skills and age, the students decreased the mean score and the academic failure, and between emotional intelligence ( $r = 0.272$ ), self-awareness ( $r = 0.398$ ) was found by direct and significant statistical significance, so that the higher the level of emotional intelligence and self-awareness, the higher the mean score ( $p$ -value  $< 0.05$ ), but there was no statistical relationship between self-control and self-control with the mean ( $p$ -value  $> 0.05$ ). Also, there was no relationship between emotional intelligence with age ( $p$ -value  $> 0.05$ ); (Table 1).

**Table 1**

Relationship between emotional intelligence and its subscales and age with Average score

Average			
Variable	N	Pearson correlation coefficient	p-value
Age	313	- 0.353	0.000
Emotional Intelligence		- 0.272	0.032
Self-awareness		0.398	0.009
Self-control		- 0.015	0.788
Self-motivation		- 0.11	0.051
Social consciousness		- 0.121	0.033
Social skills		- 0.118	0.037

Independent t-test showed that there is a statistical relation between emotional intelligence and gender, so that emotional intelligence was more in women than men ( $p$ -value  $< 0.05$ ) but between emotional intelligence and marital status and participation in classes Non-teaching has not a statistical relation ( $p$ -value  $> 0.05$ ). Based on independent t-test between emotional intelligence subscales and the mean of gender, marital status and participation in non-teaching classes, there was no statistical relationship ( $p$ -value  $> 0.05$ ). According to one-way Anova, there was a significant relationship between emotional intelligence, self-awareness subscale, social consciousness, social skills and grade with the educational level ( $p$ -value  $< 0.05$ ). Tukey's post-test showed higher level of emotional intelligence in students Ph.D. levels were higher than other levels, as well as higher-level students with higher education than other students, and self-awareness in undergraduate and postgraduate degrees, and social awareness and social skills at a senior level. However, there was no relation between self-control and self-control subscales with educational level ( $p$ -value  $> 0.05$ ).

**Table 2**

Multiple regression between the emotional intelligence subscales with the Average

Source of change	sum of squares	Degrees of freedom	Mean of squares	R2	R	F	P-value
Effect of regression	8.364	5	1.673	0.212	0.46	2.09	0.027
Remaining	1078.054	307	3.511				
Total	1086.418	312	-				

**Table 3**

The Effect of Each Subscale of Emotional Intelligence on the Average

Functions	B	Beta	Statistics t	P-value
fixed value	15.324	-	15.853	0.000
Self-awareness	0.117	0.109	0.244	0.014
Self-control	- 0.024	- 0.046	- 0.648	0.172
Self-motivation	0.012	0.020	0.248	0.42
Social consciousness	- 0.367	- 0.157	- 0.386	0.005
Social skills	0.232	0.144	0.742	0.021

Table 2 shows that the F value is 95% larger than the critical value of the table. Therefore, there was a significant correlation between the emotional intelligence subscales with the mean of multiple correlation ( $P$ -value  $< 0.05$ ), and the correlation coefficient was 0.46 and the correction coefficient was 21.22. Therefore, 21.2% of the variance of the mean variables is influenced by the

emotional intelligence subscale and the other changes are due to unknown factors that were not included in the research. According to Table 3, the predictive model can be as follows offered:

$$Y = 15.324 + 0.117 X_1 - 0.024 X_2 + 0.012 X_3 - 0.367 X_4 + 0.232 X_5$$

Y: Average, X1: self-awareness, X2: self-control, X3: self-esteem, X4: social awareness and X5: social skills. Among the significant subscales, the social consciousness variable has the highest effect in predicting the Average.

#### 4. DISCUSSION

In this study, the relationship between emotional intelligence and academic achievement was studied in students of Zabol University of Medical Sciences. Also, the share of each emotional intelligence subscale was determined by academic achievement. The findings of this study showed that among the subscales of emotional intelligence, the highest Average was allocated to the subscales of self-awareness, self-motivation, self-control, social consciousness and social skills.

According to the results, there was a significant statistical relationship between emotional intelligence and gender. Emotional intelligence of girls was higher than that of boys. These findings were consistent with studies by Furnham (Petrides and Furnham, 2000), Austin (Austin et al., 2005), Khusro Javid (Khusro Javid, 2002), Dehshiri (Dehshiri, 2003), and Adeyemo (Adeyemo, 2008), which showed that the ability to express excitement and empathy in more women of men and in interpersonal relationships, women were more concerned with the excitement of others, but they were not in line with the results of the fruits of goodness, religion, Baron and Reuven (Samari and Tahmasbi, 2007; Besharat et al., 2005; Dini, 2005; Baron and Reuven, 2000) because they believed that the level of emotional intelligence among girls and boys are not much different, and they have the same emotional intelligence in facing everyday issues. However, there was no significant difference between the subscales and the average (academic achievement) with gender, which was not consistent with some studies (Dini, 2005; Hoseini Nasab and Rahimzadeh, 2008; Bar-on, 2000), and it was found that girls were superior to boys in academic achievement and that girls were in the same direction Rational, educational and physical growth faster than boys and surpass sons due to their maturity and maturity due to their inherent differences in intelligence and intelligence. But there was no relation between the Average (academic achievement), emotional intelligence and its subscales with marital status and participation in non-teaching classes which is not consistent with the findings of Kia study (Kia and Heydari, 2016).

There was a statistical relationship between emotional intelligence, Average and self-awareness subscales, social consciousness and social skills with educational level, but, there was no relationship between student's emotional intelligence and academic status in the study (Stratton et al., 2008; Chinipardaz et al., 2012) and stated that the educational system was unable to make fundamental changes in students' emotional intelligence. The results of the research indicate that there is a direct relationship between emotional intelligence and academic achievement. This Average that with increasing emotional intelligence, the success of students increases. These results were consistent with the research (Besharat et al., 2005; Liff, 2003; Mehrabian, 2000; Mansouri, 2002; Golestan Jahromi et al., 2008; Zare, 2011; Izadi Yazdan Abadi et al., 2011 22-24, 26-27). In other words, the results of these studies showed that there is a significant relationship between emotional intelligence and academic achievement. When a person has the skills to control his or her emotions and feelings, and also has the ability to motivate the internal one, regardless of the amount of external reinforcement, and knows his communication skills and abilities. The person in the learning environment will have more ability and success (Mansouri, 2012). On the other hand, with the higher level of emotional intelligence, the ease of emotion with positive changes in behavior contributes to the better adaptation of students to the educational environment. In the light of the emotional cognitive qualities, people with higher emotional intelligence, in addition to increasing attention to educational issues and focusing on using effective strategies to improve their academic performance, successfully succeeded in this field, based on which emotional cognition with mechanisms Predictability, control and effective coping strategies help to improve the quality of education and achieve the desired educational compromise (Zins et al., 2007). Also suggest that having emotional intelligence from different aspects can improve academic performance, because students who are able to deal intelligently with their excitements are more self-confident, have high self-esteem, learn to They do more effort, are more self-stimulating and, to achieve their goals and tasks, they control their excitements and tensions. In fact, by mediating emotional intelligence and modulating stressors, they achieve academic achievement themselves (Defries and Polmin, 1994). Also, according to Mansouri, with the result of Jammes crested's research, which states that emotional intelligence can range from 5% to 10% of the variance of academic success index, and Paul's research quoted Rajabi, who states that the average student's academic scores with emotional intelligence Higher, more than students with lower emotional intelligence is also true (Mansouri, 2002; Zare, 2011). Also, based on the results of this study, there was an inverse relationship between the Average (academic achievement) and the age and subscale of social consciousness. But there was a direct

relation between the Average and self-awareness. In another study, it has been shown that in age, the intelligence score at the age of 7 is considered as an important factor in academic achievement, but after 7 years of age, other variables have entered into this relationship that the share of previous variables is lower (Subhani, 2004). In some studies, the relationship between these two variables is not mentioned (Abisamra, 2000). According to the findings of this study, there was no relationship between emotional intelligence and other subscales with age-related relationships, which is consistent with Chinese study (Chinipardaz et al., 2012) and with the results of Abisamra, which showed that age increases emotional intelligence. And the findings of Defries and Polmin, who stated that most people were more aware of life during their lives and contradicted their age-preferences in controlling excitement and behavior (Subhani, 2004; Raahnamaa and Abdolmalekee, 2009). In determining the most effective subscale of emotional intelligence on academic achievement, the subscale of social consciousness had the most impact and self-actualization of the least impact. In the study, the least correlation with academic achievement was related to self-control factor and two variables of empathy and social skills with academic achievement it did not matter. In the present study, 21.2% and in the guide study, 36.5% of the academic achievement changes were related to emotional intelligence subscales and the rest were explained by other variables that the researcher did not consider and did not enter into the model (Raahnamaa and Abdolmalekee, 2009).

## 5. CONCLUSION

Based on the findings and considering that part of the emotional intelligence can be learned, it is suggested that, in academic settings, along with attention to intelligence and cognitive talents, the inclusion of the concept of emotional intelligence in the student's curriculum in the form of Educational sessions on social skills and life skills helped them to better cope with educational and social pressures and less academic failure.

## DISCLOSURE STATEMENT

This article is based on the research project of the student dissertation approved by Zabol University of Medical Science.

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