

**THE RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE AND EDUCATIONAL ACHIEVEMENT  
AMONG THE STUDENTS OF MASHHAD MEDICAL SCIENCE UNIVERSITY**

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**ABSTRACT**

The present study is an attempt to survey the relationship between emotional intelligence and educational achievements among the students of Mashhad Medical Science University. To test this hypothesis, descriptive statistics (correlation) was used. The participants were 150 students of clinical medicine, who had past at least two semesters. The research tool was Bar-on questionnaire with reliability and validity of 93% and 0.75 respectively. The data analysis (independent t-test) was carried out in SPSS. The results indicated that among the element of emotional intelligence, problem solving ability, resistance to mental pressure, and self-awareness had stronger relationship with educational achievement and were more effective in predicting educational results.

**KEY WORDS:** educational achievement, intelligence, emotional intelligence

**INTRODUCTION**

Educational life is one of the key aspects of life, which influences other aspects of life. In this regard, poor educational performance and educational drop are of the key issues of educational life of people and education system. Along with considerable financial loss, poor educational performance damages mental health of the learners. By “educational drop” we refer to decrease of educational performance of the learners from satisfactory performance. Variety of factors influences educational performance of people. These factors are classified by the experts as personal factors, academic factors, family factors, and social factors. Among the first group of factors, intelligence and mental power are notable. Different definitions exist regarding intelligence and there are three classes of these definitions:

1. Definitions that emphasize on compatibility and coordination with the environment: coordination with new situations or ability to effectively deal with different situations.
2. Definitions that emphasize on learning: learnability in general term.
3. Definitions that emphasize on abstract thinking: ability to use variety of concepts and verbal/numerical symbols.

Clearly, based on these definitions, intelligence covers limited area of personal capabilities. Thereby, the rest of the aspects need detail consideration. One of these known aspects is emotional intelligence. Golman argued that emotional intelligence is an aspect of intelligence that plays more important role than that of cognitive intelligence in people’s achievements.

Salovy and Mayer defined emotional intelligence as people’s ability to control their and others’ emotions and recognize difference between the emotions that guide thoughts and actions. Mayer and Salovy argued that one’s and other’s emotion and intelligence and using these emotional information is comprised of four abilities of receiving the emotions, using the emotions (ability to control emotions to facilitate cognitive activities such as thinking and problem solving), perceiving emotions (understanding the language of emotions and complicated relation between them), and emotion management (ability to control one’s and others’ emotions). From Golman’s viewpoint, emotional intelligence is the ways of more efficient utilization of IQ through self-control, motivation, perseverance, and self-motivation. He held emotional intelligence as a personal and social element; so that personal elements include self-awareness, self-regulation, motivation and social element include sympathy and social skills. Personal abilities in Golman’s definition means recognition of others’ emotions, self-control, and one’s and others’ emotional management.

Nelson and Lov explained emotional intelligence as the cross point of advanced abilities and skills to achieve accurate self-knowledge, recognize personal strength and weaknesses, creating and keeping healthy and effective relationships, working with others efficiently, and dealing with desires and daily life pressures in an effective and healthy manner. According to Bar-on, emotional intelligence is efficient perception of oneself and others, establishing efficient relationship with others, and harmonizing with the environment for more efficient approach to demands by the

environment. One's success in higher education is not only a function of IQ. What matters also includes emotional skills and social emotional intelligence, which emerges as motivation, patience, obedience, motivation control, skills for asking help and expressing emotional and education needs. This highlights necessity of further studies on emotional intelligence and academic environment and performance.

In fact, human being has two minds, one thinks and another feels. These two contrary ways of recognition form our psychological life. Reasonable mind is the ability of perceiving and understanding by which we think and reflect. There is also another way for understanding, which is an impulsive, powerful, and sometimes irrational system that is called emotional mind. Classifying mind into emotional and reasonable minds represents difference that people find between heart and brain. Being convinced by heart about a matter is quite different from having rational reasons. There is a negative relationship between emotional and rational minds, so that the stronger the emotions, the less effective the reason. These two, in most of the time, function in harmony; however, they are two independent forces. Performance of emotional intelligence is considerably wider than reasonable mind. Actions rooted in emotional mind are featured with strong will and carried out through emotional brain's approach of taking the issues easy. Such actions cannot be explained by the reason.

The present study is an attempt to determine importance of emotional intelligence in educational achievement and if there is a significant relationship between emotional intelligence and educational achievement.

### Problems of the research

Is there a significant relationship between emotional intelligence and educational achievement of university students?

### MATERIALS AND METHODS

The study was carried out as a descriptive correlation study. Study population was comprised of all students of Mashhad Medical Science University in academic year 2012-2013 in clinical and basic science of medicines who had passed at least two semesters. Due to limitations and problems in sampling, census sampling was carried out and totally 150 students filled out the questionnaire. Two questionnaires including demographic information and Bar-on questionnaires were administered among the participants. The criterion of educational achievement was the student's GPA reported by education department of the university. Demographic questionnaire was designed by the researchers. The collected data were analyzed in SPSS (ver.17).

Kolmogorov-Smirnov (KS) test was used to test normal data distribution before examining the variables GPA, emotional intelligence, problem solving, resistance to mental pressure, interpersonal relationship, impulse control, and self-awareness. KS test confirmed normal distribution of the data ( $p$  value  $> 0.05$ ). Taking into account normality of the data distribution, significant relationship between the variables was tested by the Pearson test ( $p$  value  $< 0.05$ ). Descriptive data were expressed as mean, median, and percentage and the diagrams were generated in EXCELL (Enterprise). To facilitate comparison of the scores with different scales and generalization of the results, the raw points were converted into standard points. Majority of the participants (about 68%) obtained 15 points above and below mean point (i.e. 85-115). Greater majority (about 95%) obtained 30 points above and below mean point (i.e. 55- 145). Participants who obtained points less than 70 or higher than 130 were not normal and needed more detail examined (Bar-on, 1997). Cronbach's alpha for the whole test was obtained 93%. Value of second and third Cronbach's alpha were identical (Rahele Samouei et al., 2005). Validity was obtained 99% through odd-even method, which was significant at  $P < 0.001$ . To ensure internal harmony and reliability of the questionnaire, Cronbach's alpha was used, so that before carrying out factor analyses method and afterward (by removing 15 questions) it was obtained 0.754 and 0.751 respectively.

### RESULTS

Hypothesis: there is a significant relationship between emotional intelligence and educational achievement of the students.

Totally, 150 students were studied and mean emotional intelligence was obtained  $334.69 \pm 37.877$  (max= 445 and min= 253) (Table 1)

**Table 1 – distribution of emotional intelligence based on course level**

| No. | Level           | N         | Mean            | Max | Min |
|-----|-----------------|-----------|-----------------|-----|-----|
| 1   | Basic science   | 22 (14.7) | 303.14 ± 39.321 | 402 | 261 |
| 2   | Physiopathology | 25 (16.7) | 321.56 ± 29.105 | 397 | 286 |
| 3   | Training        | 56 (37.3) | 342.16 ± 36.081 | 426 | 253 |
| 4   | Internship      | 47 (31.3) | 346.79 ± 34.269 | 445 | 286 |

The variables GPA, emotional intelligence, problem solving, mental pressures strength, interpersonal relationship, impulse control, and self-awareness were examined and the variable distribution was examined and confirmed by KS test (p value >0.05) (Table 2)

**Table 2- normal distribution of the variable using KS test**

| No. | Variable                      | Mean            | P value      |
|-----|-------------------------------|-----------------|--------------|
| 1   | GPA                           | 23.17 ± 2.150*  | <b>0.782</b> |
| 2   | Emotional intelligence        | 15.21 ± 1.138   | <b>0.69</b>  |
| 3   | Problem solving               | 333.69 ± 37.877 | <b>1.217</b> |
| 4   | Resistance to mental pressure | 23.69 ± 3.344   | <b>0.812</b> |
| 5   | Interpersonal relationship    | 20.72 ± 3.004   | <b>0.929</b> |
| 6   | Impulse control               | 23.31 ± 3.552   | <b>0.948</b> |
| 7   | Self-awareness                | 19 ± 4.807      | <b>0.943</b> |

\* mean ± standard deviation

Significant relationship between emotional intelligence and educational achievement was confirmed (p value < 0.01). That is the tow variables are correlated with correlation coefficient of 0.305 (Table 3).

Significant relationship between problem solving ability and educational achievement was confirmed (p value < 0.01). That is the tow variables are correlated with correlation coefficient of 0.271 (Table 3).

Significant relationship between resistance to mental pressure and educational achievement was confirmed (p value < 0.05). That is the tow variables are correlated with correlation coefficient of 0.161 (Table 3).

Significant relationship between interpersonal relationship and educational achievement was confirmed (p value < 0.05) (Table 3).

Significant relationship between impulse control ability and educational achievement was confirmed (p value < 0.05) (Table 3).

Significant relationship between self-awareness and educational achievement was confirmed (p value < 0.05). That is the tow variables are correlated with correlation coefficient of 0.257 (Table 3).

**Table 3- Relationship between educational achievement and emotional intelligence**

| No | Variables                             | P value      |
|----|---------------------------------------|--------------|
| 1  | GPA and emotional intelligence        | <b>0.000</b> |
| 2  | GPA and problem solving ability       | <b>0.001</b> |
| 3  | GAP and resistance to mental pressure | <b>0.048</b> |
| 4  | GPA and interpersonal relationship    | <b>0.052</b> |
| 5  | GPA and impulse control               | <b>0.283</b> |
| 6  | GPA and self-awareness                | <b>0.002</b> |

## DISCUSSION

Relationship between emotional intelligence and educational achievement among students of Mashhad Medical Science University was examined. Research hypothesis stated “there is a significant relationship between emotional intelligence and educational achievement.” The results supported the hypothesis. This result is consistent with Martinz (1997), Zahra Kar (2007), Hanifi and Joibari (2010), and Bakhshisour Shojaei (2008). In conclusion, among the

elements of emotional intelligence, problem solving skills, resistance to mental pressure, and self-awareness were more effective on with educational achievement.

### Recommendation

Based on the findings, some of the effective elements of emotional intelligence (problem solving skills, resistance to mental pressure, interpersonal relationship, impulse control, and self-awareness) are worthy of further improvement through training courses. It is notable that little can be done to improve IQ of the students. In addition results of this study and similar works emphasized necessity to survey strategies and approaches toward improvement of emotional intelligence of students, which in turn, leads to improvement of educational and social achievement of the students.

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