

The Direct and Indirect Relationships of Emotional Intelligence with Mental Health and Academic Performance with the Mediating Role of Resiliency and Self-Efficacy in Medical Students of Ahvaz Medical Sciences University

Nasser Behrozi, PhD*
Department of Educational
Psychology
Shahid Chamran University of
Ahvaz

Leila Farhadi Motlaq, MA
Department of Educational
Psychology
Shahid Chamran University of
Ahvaz

Manijeh Shehni Yailagh, PhD
Department of Educational
Psychology
Shahid Chamran University of
Ahvaz

Moosa Javdan, PhD
Department of Humanistic
Sciences
Hormozgan University
BandarAbass

The purpose of the present study was to examine the direct and indirect relationship of emotional intelligence with mental health and academic performance through the mediating role of resiliency and self-efficacy. The population of this research consists of all the first-grade students of Medical Sciences in Jundi Shapur Medical University in 2012-2013 academic years. From this population, a sample consisting of 314 students were selected using stratified random sampling method. The research instruments were Emotional Intelligence Scale (EIS), Resilience Inventory (CD-RIS), General Self-efficacy Questionnaire (SA-GSEQ), and General Health Questionnaire (GHQ-28). The data were analyzed by path analysis, SPSS-18 and AMOS-7 software. The results showed that direct relationships of emotional intelligence with resiliency, emotional intelligence with self-efficacy, emotional intelligence with mental health, and self-efficacy with mental

health were significant. But, direct relationships of resiliency with academic performance, resiliency with mental health, emotional intelligence with academic performance and self-efficacy with academic performance were not significant. In addition, the results indicated that the indirect relationship of emotional intelligence with academic performance by the mediating role of resiliency and self-efficacy was not significant. But, the indirect relationship between emotional intelligence with mental health by the mediating role of resiliency and self-efficacy was significant.

Keywords: emotional intelligence, resiliency, self-efficacy, mental health, academic performance

Academic life is one of the most important proportions of an individual's life which has much influence on other aspects of life. One of the basic problems in the academic life of the individuals and the educational system in every country is the academic drop and the decrease in academic performance level and the mental health of the students of the country. Different factors have effects on the academic performance and the mental health of the individuals. One of the factors having an effect on the mental health and the academic performance is emotional intelligence. During the recent fifteen years, the emotional intelligence has acquired great attention in the scientific research and has been paid deep attention in theoretical and experimental investigations (Freud Enthaler, Gabler Scherl, Rinder man, 2008; Zenasni & Lubart, 2008, 2009).

The role of emotional intelligence has also been discussed in everyday life (Extremer, Fernandez & Berrocal, 2006) and its relationship with the mental health of the individual has been confirmed (Freud Enthaler et al., 2008; Faraji et al. 20014; Sefatgol, & Lashkaripour, 2014). In 1990, Mayer and Salovey presented the first definition and the official model of the emotional intelligence. During these periods, emotional intelligence has had different forms defined by researchers. Austin, Farrell, Black and Moore (2007) believe that emotional

intelligence is a combination of inner-individual and inter-individual capacities which is useful for the people with high emotional intelligence. The emotional intelligence is an important factor in determining life successes and mental health because it influences the individual's ability to effectively resist the pressures and environmental demands (Slaski & Cartwright, 2002). Also, according to other studies, emotional intelligence has had a positive correlation with mental health (Schott, Malouff, Thorsteinsson, Bhullar & Rook, 2007).

Regarding the emotional intelligence factors and structure, it can be mentioned that perception and expressing emotions, regulating emotions, using emotions and controlling emotions in dangerous and disastrous situations act as protecting factors. It was shown in previous research that resilience is related to emotional intelligence. The abilities to extend emotions to the others, esteeming oneself, having confidence in the future, accepting responsibility for one's acts, showing self-efficacy and suitable expectations are due to factors having effects on the individual's resilience and are close to the emotional intelligence factors (Benard, 1991). Pishgadam & Ghonsoli, (2008) quoted in Majidi, (2010); Keshavarz et al. (2014), and even sometimes negative relationship (Bracckett & Mayer, 2003) has been reported. Amelang and Steninmayer (2006) using structural equation modeling showed that emotional intelligence cannot explain the academic performance more than general intelligence and conscientiousness. Also, resilience is one of the effective factors in mental health and academic performance. The positive psychological approach in recent years has been of importance and attention, regarding the individual's abilities and capabilities, for the researchers of different fields of psychology. So, the most basic structures under research in this approach are the factors which lead to

human's adaptation to the needs and threats of his/her life. Connor (2006) has defined resilience as a way of measuring individual's ability against stress-making factors and the factors that endanger his/her mental health.

Resilient people do not have a self-shattering behavior, are emotionally calm and have the ability to face sadness and undesirable situations (Letzring, Block & Funder, 2005). The researchers have investigated common features in resilient people as following: higher self-autonomy, independence, commitment to work, sympathy, Severences, good problem-solving abilities and enjoying desirable communication with peers (Keroger & Greene quoted in Issacson, 2002). Resilience is among the factors that can have an effect on mental health (Friborg, Barloug, Martinussen, Rosenvinge, Hjemdal, 2005; Tiangiang, Dajun & Jinliang, 2015). Most of the researchers have reported significant and negative relationships between resilience and psychological problems and are of the opinion that resilience can act as a mediator between mental health and many other variables. As resilience increases, the individual can resist and conquer the stress-making factors and also the factors that lead to many psychological problems (Agaibi & Wilson, 2005; Joseph, Williams & Yule, 1997; Connor, 2006; Besharat, 2007).

The psychological health of the people who are under the effect of stress, anxiety and depression is endangered, but resilience guarantees the psychological health of people by abating these stress-making symptoms (Besharat, 2007). One of the important ways that emotional intelligence can have an effect on psychological health is to promote the power of self-expression and self-efficacy (Hampton & Mason, 2003; Afrooz et al., 2013). Self-efficacy is a kind of self-evaluation that influences the individual's decisions, as for what must be done

in the process of learning in a particular field. Also self-efficacy is a kind of personal judgment which determines the individual's amount of attempt in achieving success in special academic fields such as mathematics, science and so on. Students with a great deal of self-efficacy are more likely to have academic progress than other learners (Pajares, 1996). Therefore, self-efficacy must be evaluated regarding the levels of the assignments in different activity fields and under particular conditions (Pajares & Schotte, 2001). People with high self-efficacy imagine themselves successful in doing challenging assignments; while people with low self-efficacy use lower-level thinking processes and imagine them unlucky in doing assignments. These differences of attitude and performance lead to differences in their imputes. Among factors under the influence of self-efficacy is psychological health. People having more powerful self-efficacy beliefs are more able to change their negative psychological states and this depends on their beliefs and attempts (Kim, 2002)

Direct hypothesis

1. There is a positive relationship between emotional intelligence and academic performance.
2. There is a positive relationship between self-efficacy and academic performance.
3. There is a positive relationship between resiliency and academic performance.
4. There is a positive relationship between emotional intelligence and mental health.
5. There is a positive relationship between self-efficacy and mental health.
6. There is a positive relationship between resiliency and mental health.

7. There is a positive relationship between emotional intelligence and self-efficacy
8. There is a positive relationship between emotional intelligence and resiliency.

Indirect hypothesis

1. Emotional intelligence is related to academic performance through resiliency and self-efficacy.
2. Emotional intelligence is related to mental health through resiliency and self-efficacy.

In the present research, a combination of these variables is studied to show the relationships of the emotional intelligence with the psychological health and academic performance, considering the mediatory role of self-efficacy and resilience. The purpose of this research, according to the Chart 1, is to examine the direct and indirect relationships of the model of emotional intelligence with the psychological health and academic performance through the mediatory role of self-efficacy and resilience.

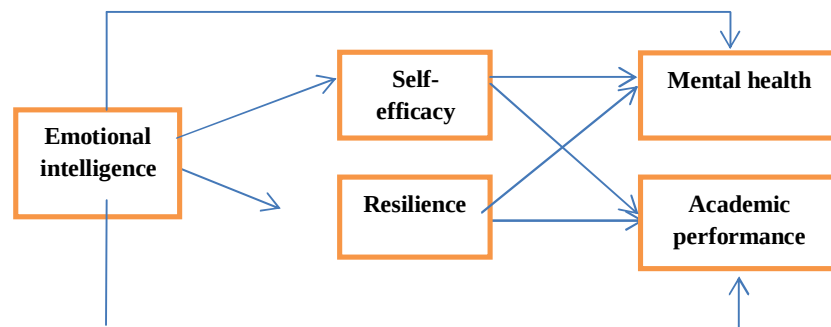


Figure 1. The proposed research model of the variables

Method

Emotional intelligence questionnaire (EIS). In this research Petrides and Furnham emotional intelligence scale (2000) that has been normalized by Marani (2003); quoted by Aliakbari Dehkordi (2007), consisting of the four factors of optimism, understanding one's emotions and those of others, and evaluating and controlling the emotions and social skills, has been used. This scale has been made by making change on Schutt' scale (1998) and using factor analysis method. This questionnaire consists of thirty articles and every article is graded from 1 to 7 (complete disagree to complete agree). Then, adding the given grades, the total number of the test is calculated which shows the emotional intelligence characteristics in 4 factors. The total grad of the test must be at least 30 and at most 210. In the present research, the reliability coefficient of the emotional intelligence scale has been achieved with the use of Cronbach Alpha 0.87 and split-half method 0.87 which means the suitable reliability and the acceptability of this questionnaire. In carrying out the affirmative factor analysis of the emotional intelligence questionnaire, all the articles had suitable factor loading but the articles 1,2,4,16,17 and twenty three questionnaires had a factor loading less than 0.30 which were deleted in the final analysis for the model test.

Resilience questionnaire (CD-RIS). The resilience questionnaire was developed in 2003 and was translated into Persian prepared technically by Mohammadi (2005). Connor and Davidson developed this questionnaire by reviewing the research sources of 1979-1991 about resilience. Davidson-Connor resilience questionnaire has twenty five items in which every item is graded between 0 (completely wrong) to 4 (always right). In this research, the reliability coefficient for the entire questionnaire

was achieved by Cronbach Alpha .85 and split-half .91 methods. These results show that the achieved coefficients have been satisfactory and also show the acceptable internal parallelism of the above questionnaire. In order to determine validity amount of this questionnaire, affirmative factor analysis was used. In carrying out the affirmative factor analysis in the resilience questionnaire, all the articles had suitable factor loading and only articles 3 and 20 of the questionnaire had a factor loading less than .30 which were deleted in the final analysis for the model test.

General self-efficacy questionnaire (GSEI). The general self-efficacy questionnaire was developed by Sherer and Adams (1983) and has 23 items, 17 out of which are about general self-efficacy and the other 6 are about self-efficacy experiences in social conditions. In the present research, a 17 item-questionnaire is used. Self-efficacy questionnaire measures the individual's beliefs in his/her ability to conquer different conditions. This questionnaire has been arranged on the basis of the five-degree likert scale, in the form that the completely-disagree answer is graded one and the completely-agree answer is graded five. In the present research, the reliability coefficients of the self-efficacy scale was calculated by the use of Cronbach's Alpha to be .87 and split-half to be .83, showing acceptable and suitable reliability for this questionnaire. In order to determine the validity value of this questionnaire, affirmative factor analysis method was used. In carrying out the affirmative factor analysis on the self-efficacy questionnaire, all the items had suitable factor loading but item 8, which was deleted for the model test.

General Health Questionnaire (GHQ-28). General health

questionnaire was developed in 1979 by Goldberg and Hiller and was translated and normalized by Palahang, et al. (1996). This questionnaire has four secondary scales each of which has seven items, namely: (A): physical symptoms (B) anxiety symptoms (C) social performance and (D) depression symptoms. This questionnaire consists of simple sentences about the psychological states of individuals, which are graded with the options of no (0), very few (1), few (2), many (3). In the present research, the reliability coefficient of the psychological health questionnaire was calculated by the use of Cronbach's Alpha to be .89 and split-half to be 0.74, showing the suitable and acceptable reliability of the questionnaire. In order to determine the validity magnitude of this questionnaire, affirmative reduction method was used. In carrying out the affirmative factor analysis on the general health questionnaire all the items had suitable factor loadings.

This is a correlation research and of the type of path analysis. In this research the population is all the first grade students of general medical major at the Medical Sciences University of Jundi Shapoor Ahvaz studying in the academic year 2011-2012 and has passed at least thirty academic units. The sampling method is the stratified random in a way that in comparison with the number of students in each gender (boy and girl) and at first-grade medical major, a sample of 314 students (171 girls and 143 boys) have been selected randomly. In this research, the standard deviations and means, respectively are, emotional intelligence 19.84, 118.20, resilience 14.86, 55.70, self-efficacy 9.01, 56.92, academic performance 1.22, 15.78, and mental health 11.47, 25.03.

Data Analysis Method

To evaluate the suggested method, the data were evaluated by

the use of structural equation modeling (SEM. For the mediatory effects test in the suggested model and their significance, Bootstrap Macro (Preacher and Hayes method, 2008) was used. Determining fitting efficacy of the suggested model was performed by the use of several fitting indicators. In Table1, the explaining indicators including mean, standard deviation, the minimum and the maximum grades have been brought for the research variables.

Table 1
Mean, Standard Deviation, Minimum and Maximum Scores of Participants in the Study Variables

Variables	Mean	Standard deviation	Minimum grade	Maximum grade
Emotional intelligence	118.20	19.84	54	159
Resilience	55.70	14.86	8	89
Self-efficacy	56.92	9.01	18	75
Academic performance	15.78	1.22	12.50	18.80
Mental health	25.03	11.47	4	78

In order to investigate the relationship between research variables, their correlation was calculated and the results are presented in Table 2.

Table 2

Correlation Coefficients between the Variables

Variables	1	2	3	4	5
1. Emotional intelligence	-	.60**	.72**	-.46**	.11*
2. Self-efficacy	-	-	.65**	-.48**	.13*
3. Resilience	-	-	-	.45**	.14*
4. Mental health	-	-	-	-	-.11*
5. Academic performance	-	-	-	-	-

****p<. 01**

***p< . 05**

As seen in Table 2, all the obtained correlation coefficients among the research variables are significant (levels of significance for all the coefficients are shown with asterisks in the Table). The correlation coefficients of emotional intelligence, self-efficacy, and resilience with mental health are, respectively, -.46, .48 and .45 which are all significant at the $p < .01$ level and the correlation coefficients of emotional intelligence, self-efficacy and resilience with academic performance are, respectively, .11, .13, .14 which are all significant at the $p < .05$ levels. Figure 2 shows the coefficient path of the research's suggested model. Figure 2 shows that the coefficients of the direct paths of resilience to academic performance, resilience to mental health, emotional intelligence to academic performance and self-efficacy to academic performance are not significant (The hyphens in Figure 2). So, by deleting these paths from the model and applying an amending indicator on the model and on the basis of research, tow paths were added to the model, (A): Resilience to self-efficacy and (B) mental health to academic performance. After applying these changes, another analysis was performed on the

data. The results of the amended model paths are shown in Figure 3 and its fitting indicators are presented in Table 3.

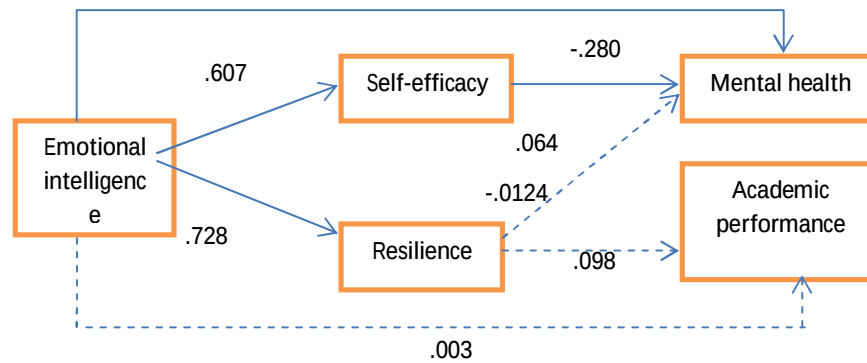


Figure 2. Standardized Coefficients Proposed Direct and Indirect Relationships between EI and Psychological Health and Academic Performance, Self-Efficacy and Resilience with Mediation (Model 1).* Note: All the broken lines are none significant.

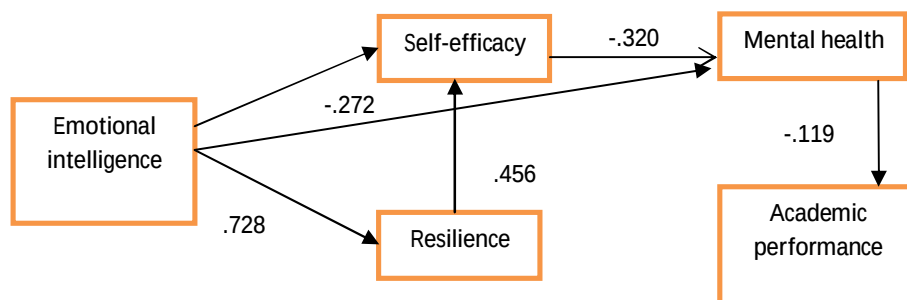


Figure 3. Modified Version of the Direct and Indirect Relationships between EI and Psychological Health and Academic Performance, Self-Efficacy and Resilience with Mediation (Model 2).

Table 3**The Fit Indices of the Proposed Model and the Modified One**

Index	χ^2	df	c^2/df	GFI	AGFI	IFI	TLI	CFI	NFI	RMSEA
The proposed model (1)	53.528	2	26.764	.941	.555	.905	.520	.904	.902	.287
The modified Model (2)	6.090	4	1.522	.993	.972	.996	.990	.996	.989	.041

The contents of Table 4 show in the amended model, that the emotional intelligence to resilience, emotional intelligence to self-efficacy, and emotional intelligence to mental health and self-efficacy to mental health paths are significant and resilience to academic performance, resilience to mental health, emotional intelligence to academic performance and self-efficacy to academic performance paths are not significant. In addition, the new paths of mental health to academic performance and resilience to self-efficacy are also significant. Also in investigating the mediatory or indirect relationships among the studied variables Bootstrap Macro Preacher and Hayes method (2008) was used (Table 5).

Table 4
Direct Path Coefficients of the Structural Model and the
Proposed Model

Directions	The proposed model				The modified model			
	β	B	SE	p	β	B	SE	p
emotional intelligence→ resilience	.728	.545	.029	.001	.728	.545	.029	.001
emotional intelligence→ self-efficacy	.607	.276	.020	.001	.275	.125	.027	.001
resilience→ academic performance	.098	.008	.007	.20	-	-	-	-
emotional intelligence→ mental health	.210	.120	.042	.01	-.272	-.157	.041	.001
resilience→ mental health	.124	.095	.058	.10	-	-	-	-
emotional intelligence→ academic performance	.003	.000	.005	.88	-	-	-	-
self-efficacy→ mental health	.280	.354	.083	.001	-.320	-.407	.077	.001
self-efficacy→ academic performance	.064	.009	-.010	.34	-	-	-	-
mental health→ academic performance	-	-	-	-	-.119	-.013	.006	.03

Table 5**Bootstrap Macro Preacher and Hayes Method Results**

Path		data	boot	bias	Standard error	The upper limit	The lower limit
The overall relationship between emotional intelligence and self-resiliency and mental health		-.1492	-.1487	.0005	.0417	-.0570	-.2230
The relationship between emotional intelligence and mental health through the resiliency		-.0517	-.0517	-.0001	.0383	.0367	-.1173
The relationship between emotional intelligence and mental health through self-efficacy		-.0976	-.0970	.0006	.0277	.0496	-.1601
The general relationship between emotional intelligence through self-efficacy and academic resiliency		.0068	.0068	.0000	.0039	.0148	-.0005
Relationship between emotional intelligence and academic performance through resiliency		.0044	.0045	.0001	.0041	.0120	-.0039
Relationship between emotional intelligence and academic performance through self-efficacy		.0024	.0023	-.0001	.0029	.0088	-.0027

The contents of Table 5 show that among the indirect paths, only the up and down limit of the total indirect relationship of emotional intelligence on mental health excludes zero and this indicates the significance of the total indirect path and the rest of the paths became insignificant.

Discussion and Conclusions

The results of the research show that there is not a significant relationship between emotional intelligence and academic performance. The aobtained result is in agreement with Keshavarz et al. (2014) and Amelang & Steinmeyrs (2006) research. Because the evaluated sample in this research was students, the exams which are given to evaluate their academic success are incongruous and teacher-made and often lack the necessary exam-designing standards. These kind of teacher-made exams are presented on the basis of the teacher's personal taste which is affected by the class environment, the presented lessons in the class and also depending on the teacher's tendency to some parts of the book. This may affect the student's final mean which has been used in this research as the academic performance indicator. From another point of view, emotional intelligence is not always seen valuable by the society, and it is not always promoted and even people with high emotional health may face some problems (Mayer, Caruso & Salovey, 2000). Golman (1998) believes that academic intelligence is not much related to emotional conditions. The most intelligent people may not afford to tolerate against nervous shakes and instinct. People with high IQ may surprisingly destroy their personal life. So, though good performance in emotional health field can predict success and better performance, emotional intelligence cannot be known as the sole progress evaluation scale and many factors influence

academic performance (Golman, 1998; Quoted in Parsa, 1387). Also, the results of the research show that between self-efficacy and academic performance there is no significant relationship and this is in agreement with the results of Capa and Loadman (2001) and Arabian et al. (2004). It seems that in regard to the controversy in our country that being admitted at the universities is considered important, people with high self-efficacy can pass the University Entrance Test with a lot of efforts, but after their admission and achieving their goals, they no longer have the necessary impetus for academic success and study only to pass the academic units and because of the uncertainty of the future employment, do not try to study hard and so do not succeed academically (Arabian et al., 2004). Also, the results show that there is no significant relationship between resilience and academic performance which is in agreement with Nkosi (2005) and Hudson, Jer (2001), and is not in line with Hsieh and Shek research (2008). Perhaps it can be said that regarding the research results, personal environmental, academic pressures, dormitory condition, being away from home and its problems, and non-local students haste for graduation, are all the factors that increase the stress of students and directly and indirectly put the students under pressure to get better grades. Individuals' reactions to stressors are influenced by their understanding of the stress-evoking events and any stressor puts stress on the individual and may decrease the individual's resilience factors such as immune relationship, deserving tolerating negative emotions, accepting positive emotions and the use of his tolerating sources (Tagarobi et al., (2010). Another explanation is that it may be not possible to change the resilience structure into academic performance because people may show resilience in conditions like parent's death, illness, and emotional quarrels and then academic performance may be not very important

against the hardships and problems they are facing, so they spend resilience and its energy for more important matters and deal less with academic subjects. Thus, it is natural that the student's academic performance falls down. Another achievement of this research shows that there is a significant relationship between the emotional intelligence and mental health. This achievement is in line with the previous research of Johnson, Batey & Holdsworth (2009), Faraji et al. (2014); Sefatgol and Lashkari (2014), Shabani et al. (2011) Izadinia et al. (2010), Moira and Olivier (2008). These researchers point to the important role of emotional intelligence in abating the stress process and increasing individual's flexibility and argue that it can be used as a stress management technic. Ogina-Bulik (2005) has shown that people with higher emotional intelligence have less job stress and health problems. In his opinion, emotional intelligence has a preventing role in health problems, especially depression. People with high levels of emotional intelligence are determined by better dealing with stress, expressing emotions and also managing and controlling them. So it can be said that high emotional intelligence in one way decreases individual's stress and influences his health by increasing his encountering skills and in another way increases the communication skills and also his ability in making and preserving networks which helps the students' general health. The other achievement of this research is that there is a significant relationship between the two variables of self-efficacy and mental health. This is in agreement with the previous research such as Afroozs et al. (2013), pakmehr & jafariSani, (2010); Kim, (2002) in justifying this achievement it must be said that because Bandura looks at self-efficacy as a factor which acts as a cognitive mediator and influences the knowledge, thoughts and the emotion of people, so reaching such a conclusion is not far from expectation

because when the students are affected by negative events and stress-inducing situations, high self-efficacy helps them cope with those events and conditions and so protect themselves against many mental problems. From another point of view, low self-efficacy prevents effective dealing with situations and increases illness symptoms and mental disorders. In a general view, it can be said that different research results have asserted the relationship between self-efficacy beliefs and mental health and showed that high self-efficacy helps suitable performance and mental health (Mirsamiee & EbrahimiGhavam, 1999). Also, the results of the present research show that there is not a significant relationship between resilience and mental health. This is not in agreement with Tiangiang, Dajun & Jinliang (2015), Izadinia et al. (2010), and Friberg et al. (2005). To justify this we can say that economic and social pressures and the society have much influence on resilience and mental health of the people. According to the Social-Ecological system theory, texture and environmental protecting factors like individual's relation texture with family, local society (like school programs and policies, social-protecting services, having access to experienced teachers, etc.) and more expanded society (like culture, media, economic situation, using amenities, etc.) all have important roles, on the structure of the individual's resilience. The more these amenities are out of reach and people not able to use them, the less their resilience and mental health will be (Safarinia & Bazyarimeimand, 2011). According to the social-ecological system many factors like society's cultural gesture, the amenities of the society, such as having access to material sources, influence resilience but it depends on the individual differences among them and also their situation to understand which factor has the most influence. Along with these, cultural, social and economic levels have important roles

on why resilience-promoting programs for every person must be defined (Masten & Poweel, 2003) according to the texture of the setting of any region (family school and society).

Thus, the resilience variable is influenced by many factors such as economic, cultural, social and personal differences. It seems that the existence of a category of these factors has caused the correlation between resilience and mental health of the students in this research fall down. The less the appropriate conditions and the accommodations, the more resilience and mental health decrease. Also, it must be noticed that the students of medical field have had a decrease in their psychological tenacity and have less resilience and mental health because of the abundance of their academic work and also the general exam at the end of the first grade period. Regarding the achieved result between emotional intelligence and self-efficacy there is a significant relationship which is in agreement with Talebinezhad & Banihashemi (2013), Adeoye & Emeke, (2010), Moira & Olivier, (2008). In justifying the relationship between emotional intelligence and self-efficacy, it must be said that because emotional intelligence includes a group of interconnected skills to exact understanding, evaluation and expressing emotions, producing emotions to ease the process of thinking, ability to understand the emotions and emotional knowledge and the ability to set the emotions in order to gain emotional and reasonable growth (Mayer & Salovey, 1997) and since self-efficacy also influences the way people think, how they face problems, emotional health, deciding, and dealing with environmental pressures, it has a positive relationship with self-efficacy and both have the ability to predict one another Rostami et al. (2010).

Also the results of this research show that there is a significant relationship between emotional intelligence and

resilience and this is in line with the research of Trapp (2010), Garg and Rastogi (2009) and Jowker (2007). On a theoretical level, one can justify the mentioned achievement by analyzing emotional intelligence structure. Mayer & Salovey (1997) have considered four factors in their latest revision for emotional intelligence 1- ability to understand, evaluate and express the emotions, 2- emotional easing of thinking, 3- knowing, analyzing and using emotional knowledge, and 4- reasonable setting of emotions.

According to the first factor, the increase in the level of emotional understanding cause the increase of power of evaluating environmental impetuses and also causes the increase of the power to produce emotional relationship and sympathy expression and makes the useful interchange of individual with environment possible (Mayer (2001; Besharat, 2005). It can be said that this factor increases resilience by increasing the power of understanding the environment. In the emotional easing of thinking factor, thinking on the basis of the priority of the problems eases the use of memory's special sources, behavior change and hidden data process (Mayer, 2001; Besharat, 2005). This helps the individual encounter the problems and tensions of the environment more powerfully and to have more resilience by organizing the thoughts and the contents of the memory and behavior. The analysis and use of factors provide the methods of encountering stress-inducing situations by increasing the probability of good and realistic knowledge of meanings and situations and predicting and conquering the problems. In fact this factor increases resilience by expanding the individuals force in predicting and controlling the encountering methods. At last, the reasonable setting of the emotions leads to an increase of the individual's organizing power and adaptation to the dangerous conditions. It is needed to say that though these

factors were presented separately, they promote each other's roles by interchanging with one another (Jowkar, 2007).

The indirect effect of emotional intelligence on academic performance, through the mediation of self-efficacy and resilience is not significant. In justifying this, we can say that students who lack needed skills like emotional intelligence, emotions controlling and administering resilience and the ways of encountering stress and happiness don't acquire the ability to communicate with friends, professors and teaching environments. Because of the lack of experience in this regard, they negatively evaluate their abilities and self-efficacy sources and this can lead to a decrease in their self-esteem and falling down academically. It should be noted that in addition to socio-economic problems, the sensitivity of the field of study especially in the first few terms of academic years, is the effective factor in students' stress.

The results of the research show that the indirect effect of emotional intelligence on mental health and resilience by the mediation of self-efficacy is significant. According to the results of Sevdalis et al. (2007) emotional intelligence skills promote the self-expression power by tampering with cognitive and behavioral features of the learners. Using emotional intelligence skills, with a combination of a series of procedures to teach students how to have significant inter-personal relationships and be able to communicate with the others correctly and without problems and evaluate their abilities is completely related to their existence tools (Austin, et al. 2007). From another point of view, students with high resilience, have more controlling power against stress-inducing factors and have the management power to control the mental pressures. This ability helps them be flexible in facing the problems and controlling their emotions. So, the ability to control emotions and high resilience is

effective in abating mental pressure and consequently causes the mental health of the individual. As Garg and Rastogi (2009) showed in their research students with high social and emotional intelligence have more resilience against stress and this is very effective in their personal and occupational success. The important and remarkable matter is that as social and emotional intelligence grows, in conjunction with more resilience against stress, depression decreases and muscular abilities increase which in return, has a good influence on thinking abilities of students on their growth and mental adaptation. Generally, it is hardly possible to prepare the desirable conditions for carrying out research. In this research too, the researcher faced some limitations, few of which are mentioned. This study is limited to the first-grade medical college students of Ahvaz Medical Science University. So, generalizing the results to the students of other universities must be done with prudence. The only tool to collect data in this research was a self-report questionnaire. That is why we might face one-method bias in the acquired data. As path analysis method has been used to evaluate the suggested model's fitting, cause and effect conclusion must be done with prudence.

Suggestions

This research has been carried out on the medical major students. So, it is recommended that the research be carried out in populations other than the university students. (for instance, high-school students). It is recommended that in the future research, intervening variables such as social-economic conditions, educational conditions and university accommodations be investigated and controlled. The factors of emotional intelligence, resilience and self-efficacy questionnaires must be investigated on the basis of democratic

indicators. Depending on the resultss of this research and by referring and using theatrical principles and research history of the subject, it can be recommended that resilience-based education be presented to students in the form of educational workshops. Also, it is recommended to the consultants and the psychologists to use resilience-based education in an individual and group setting as an efficient method to promote social adaptation.

Motivating and recommending to the parents to have realistic evaluation of their children's abilities and so, reasonable expectations from their children to select the university major.

References

- Adeoye, H., & Emeke, E. A. (2010). Emotional intelligence and self-efficacy as determinants of academic achievement in the English language among students in oyo stat enior secondary school. *Ife PscyhologIA*, 18(1), 206-216.s
- Afrooz, GH., Arjmandnia, A., Taghizadeh, H., Ghasemzade, S., Asadi, R. (2013). The Comparison of Self-Efficacy Beliefs and Mental Health between gifted and normal students. *Middle Eastern Journal of Disability Studies*, 3, 27-38.
- Agaibi, C. E., & Wilson, J. P. (2005). Trauma, PTSD, and resilience. A review of the literature. *Trauma*, 6(3), 195-216.
- Aliakbaridehkordi, M. (2007). *Identifying and comparing nine-part combined groups of women gender categories having jobs in Ahvaz city and their husbands from a mental health, martial status faction and emotional intelligence point of view*, Doctoral dissertation, faculty of psychology, Ahvaz, Chamran University.
- Amelang, M., & Steinmayr, R. (2006). Is there a validity increment for tests of emotional intelligence in explaining the variance of performance criteria? *Intelligence*, 45, 468-

482.

- Austin, E. J., Farrelly, D., Black, K. & Moore, H. (2007). Emotional intelligence, Machiavellianism, and emotional manipulation. *Personality and Individual Differences*, 43, 173-179.
- Besharat, M. A. (2004). The effects of emotional intelligence on the quality of social relationships. *Journal of Psychological Studies*, 1(2, 3), 25-38.
- Besharat, M. A. (2007). Resiliency, vulnerability and mental health. *Olume Pezeshki Journal*, 6 (383), 373-383. [Persian].
- Benard, B. (1991). Perceived self-efficacy in cognitive development and performance. *Educational Psychology*, 28, 117 – 148.
- Brackcett, M. A., & Mayer, J. D. (2003). Convergent, discriminant, and incremental validity of competing measures of emotional intelligence. *Personality and Social Bulletin*, 29, 1147-1158.
- Capa, Y., & Loadman, W. E. (2001). Self-Efficacy and Previous Testing Experiences as predictors of test – anxiety among college students. *Eric Journal*, 1.17-26.
- Connor, K. M. (2006). Assessment of resilience in the aftermath of trauma. *Journal of Clinical Psychiatry*, 67(2), 46-9.
- Erabian, A., Khodapanahi, M. K., Heidari, M., & Sedghpour, B (2004). Investigating the relationship between self-efficacy and mental health and academic success of the students. *Journal Psychology*, 360-371.
- Extremiera, N., & Fernandez-Berrocal, P. (2006). Emotional intelligence as predictor of mental, social and physical health in university students. *Span J Psychol*, 9(1), 45-51.
- Faraji, M., Sharififar, F., & Javadi, B. (20014). The relationship between emotional intelligence, general health and excitement expression. *International Journal of Sport*

Studies, 4(8), 948-952.

- Freudenthaler, H. H., Neubauer, C. A., Gabler, P., Scherl, G. W., & Rindermann, H. (2008). Testing and validating the trait emotional intelligence questionnaire (TEIQue) in a German-speaking sample. *PersIndividDif*, 45(7), 673-678.
- Friborg, O., Barlaug, D., Martinussen, M., Rosenvinge, J. H., & Hjemdal, O. (2005). Resilience in relation to personality and intelligence. *International Journal of Methods in Psychiatric Research*, 14, A(1), 29-42.
- Garg, P., & Rastogi, R. (2009). Emotional intelligence and stress resiliency: A relationship study. *International Journal of Educational Administration*, 1, 1-16.
- Golman, D. (1998). *Emotional intelligence*. Translated by Nasrin Parsa (1999), Roshd Publication.
- Hampton, N. Z., & Mason, E. (2003). Learning disabilities, gender, sources of efficacy, self-efficacy beliefs, and academic achievement in high school students. *Journal of School Psychology*, 41, 101-112.
- Hsieh, M. O., & Shek, D. T. L. (2008). Personal and family correlates of resilience among adolescents living in single-parent households in Taiwan. *Journal of Divorce*, 49, 330-334.
- Hudson, JR., W. (2007). *The relationship between academic self-efficacy and resilience to grades of students admitted under special criteria*. (Unpublished dissertation). University of Phoenix.
- Issacson, B. (2002). Characteristics and enhancement of resiliency in young people, *A Research paper for Master of Science Degree with major in guidance and counseling*, University of Wisconsin-Stout.
- Izadinia, N., Amiri, M., Ghorbanjahromi, R., & Hamidi, S. (2010). A study of relationship between suicidal ideas,

depression, anxiety, resiliency, daily stresses and mental health among Tehran University students. *Procedia Social and Behavioral Sciences*, 1515–1519.

Johnson, S. J., Batey, M., & Holdsworth, L. (2009). *Personality and health, the mediating role of trait emotional intelligence and work locus of control*. Manchester Business School, University of Manchester

Joseph, S., Williams, R., & Yule, W. (1997). *Understanding post-traumatic stress: A psychology perspective on PTSD and treatment*: West Indi: Wiley.

Jowkar, B. (2008). The mediating role of resilience in the relationship between general and emotional intelligence and life satisfaction. *Contemporary psychology*, 2, 3- 12.

Keshavarz, N., Amini, M., Mani, A., Nabeiei, P., Safari. Z., Jafari, M. (2014). A Study on the relationship of emotional intelligence and academic achievement in Students of Shiraz University of Medical Sciences. *Journal Media*, 5(3), 70-77.

Kim, Y. M. (2002). Correlation of mental health problems with psychological constructs in adolescents. *International Journal of Nursing*, 139-193.

Letzring, T. D., Block, J., & Funder, D. C. (2005). Ego control and ego resiliency: Generalization of self-report scale based on personality description from acquaintances, clinicians, and the self. *Journal of Research in Personality*, 29, 395-422.

Majidi, R. (2010). *Investigating the cause relationship of general intelligence and emotional intelligence with academic performance with exam embarrassment mediation in first grade students of state high-schools of Borujerd*, Master thesis, faculty of psychology, Ahvaz, Chamran University.

Masten, A. S., & Powell, S. (2003). The resiliency model.

Excellent source of in-depth information on resiliency.
Retrieved from: (<http://resilnet.uiuc.edu/library.html>).

- Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In: Salovey P, Sluyter D. (editors). *Emotional development and emotional intelligence: Educational implications*. 1sted. New York: Basic Books, 3-31.
- Mayer, J. D., Caruso, & Salovey, P. (2000). Emotional intelligence meets traditional standards for intelligence. *Intelligence*, 27 (4), 267-298.
- Mirsamie, M., Ebrahimighavam, S. (2008). Investigating the relationship among self-efficacy social protection and exam embarrassment in mental health of boy and girl students of University of Alame Tabatabaee, *Journal of Psychology and Educational Sciences*, 91-74.
- Mohamadi, M. (2005). *Investigating effective factors on resilience in people prone to drug abuse*. Doctoral dissertation, Institute of Welfare and Rehabilitation Sciences, Tehran, Welfare and Rehabilitation Sciences, Tehran.
- Moira, M., & Olivier, L. (2008). Trait emotional intelligence and the cognitive appraisal of stressfull events: An exploratory study, *Personality and Individual Differences*, 44(7), 144-1453.
- Nkosi, A. (2005). *The influence of racial identity and resilience on the academic performance of African students attending predominantly white universities*. (Unpublished dissertation). University Graduate Board.
- Oginsa-Bulik, N. (2005). Emotional intelligence in the workplace: Exploring its effects on occupational stress and health outcomes in human service works. *International Journal of occupational Medicine and environment*, 18 (2): 75-167.

- Pajaras, F. (1996). Self-efficacy beliefs and mathematical problem solving of gifted students. *Contemporary Educational Psychology*, 21, 325 – 344.
- Pajares, F., & Schunk, D. H. (2001). *Self-Beliefs and school success: Self-efficacy, self-concept, and school achievement*. In, R. Riding and S. Rayner (Eds).
- Pakmehr, H., & Ja'fari-Sani, H. (2010). The relationship between students' self-efficacy beliefs and mental health in Mashhad University of Medical Sciences. Proceedings of the Nursing Students' National Conference, *Iran University of Medical Sciences*, 18-23.
- Palahang, H., Nasr, M., Barahini, M. N., & Shahmohamadi, D. (1996). Investigating the epidemiology of mental disorders in kashan city. *Iranian Journal of Psychiatry and Clinical Psychology*, 4, 19-27.
- Petrides, K. V., & Furnham, A. (2000). On the dimensional structure of emotion intelligence. *Personality and Individual Differences*, 29, 313-320.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 4, 879-891.
- Rostami, R., Shahmohamadi, KH., Ghaedi, G. H., Besharat, M. A., Akbarizardkhane, S., & Nosratabadi, M. (2010). The relationship of self-efficacy with emotional intelligence and the understood social protection in Tehran University students. *Journal of Medical Sciences of Gonabad*, 3, 46-54.
- Safarinia, M., Bazyarimeimand, M. (2011). A comparison between social and emotional resilience in privileged regions students with non-privileged regions students. *Journal of Innovative Education*, 1, 107-124.
- Schotte, N. S., Malouff, J. M., Thorsteinsson, E. B., Bhullar, N.,

- & Rooke, S. E. (2007). A meta-analytic investigation of relation between emotional intelligence and health. *Personality and Individual Differences*, 42, 921-933.
- Schutt, N. S. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual differences*, 25, 167-177.
- Sefatgol, F. K., & Lashkaripour, K. (2014). Mental health on nurses of Tamin Ejtemaee Hospital of Zahedan City. *Journal of novel applied sciences*, 3(12), 1375-1378.
- Sevdalis, N., Petrides, K. V., & Harvey, N. (2007). Trait emotional intelligence and decision-related emotions. *Personality and Individual Differences*, (42), 1347-1358.
- Shabani, J., Hassan, S. A., Amad, A., & Maznahbaba. (2011). Moderating effect of age on the link of emotional intelligence and mental health among high school students. *International Education Studies*, 4, 136-137.
- Sherer, M., & Adams. C. H. (1983). Construct validation of the self-efficacy scale. *Psychology Reports*, 53, 899-902.
- Slaski, M., & Cartwright, S. (2002). Health, performance and emotional intelligence: An exploratory study of retail managers. *Stress and Health*, 18, 63-68.
- Talebinezhad, M., & Banihashemi, F. (2013). The Interaction of emotional intelligence and self-efficacy with EFL Learners' Age and Gender. *International Research Journal of Applied and Basic Sciences*, 4(7), 1966-1971.
- Tagharrobi, Z., Fakharian, E., Mirhoseini, F., Rasoulinejad, S. A., Akbari, H., & Ameli, H. (2010). Survey of educational drop-out indexes and its related factors in alumni of paramedical faculty of Kashan Medical University. *Journal of Babol Unive Med*. 76-89.
- Tiangiang., H. U., Dajun, Z., & Jinliang, W. (2015). A meta-analysis of the trait resilience and mental health. *Journal*

Personality and Individual Differences, 76, 18- 27

Trapp, C. S. (2010). *The association among emotional intelligence, resilience, and academic performance of preservice teachers*. (Unpublished dissertation). University of Phoenix.

Zenasni, F., & Lubart, T. I. (2009). Perception of emotion, alexithymia and creative potential. *Personality and Individual Differences*, 46(3), 353-358.

Zenasni, F., & Lubart, T. L. (2008). Emotion related-trait moderate the impact of emotional state on creative potential. *Personality and Individual Differences*, 29(3), 157-167.

Received: 9/ 7/ 2013

Revised : 8/ 7/ 2014

Accepted: 11/ 12/ 2015

IPA
International Journal of Psychology
مجله انجمن روانشناسی ایران

نام و نام خانوادگی:
نوع و وجه اشتراك :
شماره های درخواستی:

اشتراك الكترونيكي : تك شماره ۲۰۰۰۰ ريال

- ایمیل :
- اعضاي پيوسته انجمن در صورت تمديد عضویت به صورت رایگان ارسال می گردد.
- در اشتراك سالانه کلیه مبالغ فوق دوبرابر واریز می گردد.

وجه اشتراك الكترونيكي (سالانه/ تك شماره) به مبلغ طی فیش بانكي شماره به تاریخ بانك شعبه به حساب جاري ۳۴۲۰۶۰۶۴۱ به نام انجمن روانشناسي ایران بانك تجارت، شعبه دانشگاه شهید بهشتي در تهران پرداخت شد.

اشتراك نسخه چاپي با هزینه پست : هر شماره ۱۵۰۰۰۰ ريال (پانزده هزار تومان)

نشانی: استان : شهر:
خیابان :
پلاک : کدپستی:
صندوق پستی :
تلفن تماس :

امضاء

نشانی مجله: تهران، خیابان کریم خان زند، ابتدای آبان شمالی، ساختمان مرکزی دانشگاه علامه طباطبائی، طبقه دوم، اتاق ۲۰۹، انجمن روانشناسی ایران
تلفن: ۸۱۰۳۲۲۱۴، تلفکس: ۸۱۰۳۲۲۰۰

Iranian Psychological Association, The Head quarters of
Allameh Tabatabaai University, the edge of North Aban Ave.
Karimkhane-zand Ave., Tehran-Iran

Tel: +9821 81032214 **Fax:** +9821 81032200

Website: www.iranpa.org & www.ijpb.ir

Email: ijp@iranpa.org

**Request for Subscription to Biannual
IPA
International Journal of Psychology
The Journal of Iranian Psychological Association**

First Name: Family Name:

Type and amount of Subscription:

- Single Issue: 20,000 Rials
- Email :
- Paid members of IPA will get it free of charge
- Annual Subscription will be twice as much as the above amounts

Subscription dues rates (annual / single issue) amount of was deposited in the checking account No. **342060641** of Tejarat Bank, University of Shahid Beheshti in Tehran, in the name of Iranian Psychological Association, according to the payslip No: at: Bank name: Branch name: Date:

Subscriber's Address: Province / State City Country No. and Street
Postal / zip code
Post Box No.
Tel:
Subscriber's signature
Email :

Journal Address:

Iranian Psychological Association, The Head quarters of Allameh Tabatabaai University, the edge of North Aban Ave. Karimkhane-zand Ave., Tehran-Iran

Tel: +9821 81032214 **Fax:** +9821 81032200

Website: www.iranpa.org & www.ijpb.ir

Email: ijp@iranpa.org

تعیین هزینه چاپ مقالات در نشریه بین المللی روانشناسی

براساس مصوبه هیات مدیره انجمن روانشناسی ایران ، از تاریخ اول آذر ۱۳۹۳ از

کلیه مقالات "قابل چاپ"

در مجله بین المللی روانشناسی برای هر مقاله مبلغ ۱۵۰ هزار تومان دریافت می

گردد. ضمناً برای دریافت مقالات تا قبل از فرایند چاپ هیچگونه هزینه ای دریافت

نمیشود.