



THE RELATIONSHIP BETWEEN RESILIENCE AND AGGRESSION AMONG HIGH SCHOOL STUDENTS IN GHORVEH CITY

Dr. Reza Rahimi ^{*1}, Dr. Nasrollah Erfani ²

1- Instructor, Department of Psychology, Payam-e Noor University

1. 2-Associate Professor, Department of Psychology, Payam-e Noor University

ARTICLE INFO

Received:

03th Jun 2017

Accepted:

29th Nov 2017

Available online:

14th Dec 2017

Keywords: Resilience, Aggression, Student, high school

ABSTRACT

Objective: The objective of this study was to evaluate the relationship between resilience and aggression among high school students. Method: This is a correlational study. In this study, 253 students (130 males and 123 females) were selected by multistage cluster random sampling. Subjects were asked to complete the Connor and Davidson Resilience Inventory and Ahvaz Aggression Inventory. For data analysis, Pearson correlation test, regression test, and independent t-test were used. Results: The results showed that there is a reverse and significant relationship between resilience and aggression. Comparing the resilience among males and females also showed that the males were more resilient than females. Conclusion: Resilience can predict aggression and the amount of aggression decreases with increasing resilience.

Copyright © 2013 - All Rights Reserved - Pharmacophore

To Cite This Article: Dr. Reza Rahimi, Dr. Nasrollah Erfani, (2017), "the relationship between resilience and aggression among high school students in ghorveh city", *Pharmacophore*, 8(6S), e-1173237.

Introduction

The age in which we live could be called as age of aggression, because we are faced with violent acts of killing and assaulting humans every day. Industrialization of societies, despite all its advantages, has led to increased stress in humans [1]. According to statistics released by the World Health Organization, types of psycho-social harms in most societies are increasing worryingly. Psychosocial disorders and anti-social behaviors are increasing in people, especially in younger generation and children. Historically, the behavioral and social sciences followed a problem-focused approach to study the growth of humans and the community. This pathological approach focused on problems, diseases and disorders, inconsistencies, misbehaviors, and incompetence. The emphasis was on identifying risk factors related to various disorders, such as mental illnesses, delinquency, alcoholism, and drug abuse [2]. The positive-psychological approach has attracted the attention of researchers and psychologists in recent years in light of human talents and abilities and highlighting them, instead of paying attention to the defects and of individuals. The emphasis of this approach is on identifying structures and methods that promote the health of individuals and their well-being. One of the most important strategies that have recently been considered by researchers is residence. By observing children in different environments, this question always comes to the minds of people why some of them have particular flexibility in dealing with stressors, but other children do not have such flexibility. The answer to this question involves a relatively new concept called resilience. The resilience was derived from Latin language meaning to jump back. There is no definition of resilience that is widely accepted, although it can generally be viewed as the ability to escape from difficult or destructive conditions [3]. Resilience is a factor that leads to effective flexibility and coping with stressful

factors and situations. Resilience is a positive adaptation in response to adverse conditions [4]. Resilience, of course, is not the only stability against the harms or the conditions and it is not a reactive state in dealing with risky conditions, but it is an active and constructive involvement in your own peripheral environment. Resilience is a person's ability to establish a biological-psychological balance in risky situation [5]. Researcher considers resilience and vulnerability as two opposite poles of a continuum. Vulnerability refers to increasing the likelihood of negative outcomes against risks. Mandel et al. [6] consider resilience as an effective flexibility to life events. Despite different definitions of resilience, resilient people are shared in same factors, such as higher intelligence and less affiliation with delinquent peers. Researchers have also looked at other common traits in resilient people, including higher autonomy, empathy, commitment to work, and problem solving skills, and good relationships with peers. Several studies have examined the relationship between resilience and some variables, for example, a number of studies have indicated the relationship between higher resilience and higher level of mental health and life satisfaction [7,8] Additionally, the relationship between resilience and self-esteem [9], maternal age [10], emotional intelligence [11] and parenting styles [12] has been studied. Benetti and Kambouropoulos [9] examined the indirect effects of anxiety and resilience on self-esteem and the results showed that resilience increases self-esteem and reduces anxiety. Weed and Borkowski [10] in their research entitled resilience stability in young mothers showed that the ability and resilience of children at the age of 8 depend on their intelligence scores at the age of 5 and their mothers' self-esteem. Poojagarg and Reno Rastughi studied the relationship between emotional intelligence and resilience. The results showed that students with high emotional intelligence were more resilient against stress. Zakari, Jokar and Razmju [12] studied the relationship between resilience and parenting styles and the results showed that the acceptable control style is a significant positive predictor of resilience, while strict observation styles and acceptance of freedom did not have significant predictive power for resilience. Jiu [13] in his research on middle school students concluded that there is a positive correlation between resilience score and academic achievement. Harnish [14] in his research entitled "Resilience in Students and Academic Performance" concluded that resilience training can improve students' resilience, which is effective in increasing their academic performance. In public schools, excessive anger has been associated with educational deficits, behavioral problems, alienation with peers and physical and mental problems [15]. This situation has also been associated with emotional and mental issues in adolescents such as obedience and disdain, behavioral disorders, depression and anxiety [16]. In addition, anger usually results in aggression in adolescents of all ages, and female adolescents show more indirect aggression and male adolescents show more direct aggression [17]. Aggression is defined as readiness to express anger [18 and 19]. Psychologists believe that aggression disorder is the cause of many psychological and behavioral problems in adolescents. These behaviors, if occurring, can lead to interpersonal problems, crime, victimization, and the violation of the rights of others, and they even could lead to a variety of physical and mental problems. Research results have shown that aggression is one of the important indicators of some psychiatric disorders such as anti-social personality disorder [20]. Some other studies have shown that aggressive behavior is correlated with physical diseases, such as cardiovascular disease and tension-related headache [21, 22]. Problems arising from aggression are one of the important reasons for referrals of children and adolescents to receive psychological help [20]. It is believed that aggression provides the conditions for other anti-social behaviors [23], and can cause problems in work, interpersonal relationships, and the quality of life [24]. As one of the problems is adolescence [25] and in order to cope with such a stressful world in which people live as well as overcoming aggression, one should pay attention to personality traits, playing very important role in this regard since it moderates the stress [26]. Studies have shown that resilience strategies can help adolescents achieve their success. Schools and families can enhance resilience by creating an environment that is reasonably facilitating and individuals can acquire some resilience characteristics in their lives. This increased resilience will be achieved through the development of mental health and educational achievements for children and young people [27]. Considering the importance of the subject and the lack of research in the field of resilience, and according to what was said above, a study that examined the relationship between resilience and aggression among students was not observed, so this study was conducted to evaluate the relationship between resilience and aggression among high school students. Additionally, resilience was compared among male and female students in this study. Therefore, the research hypotheses are as follows:

- 1- There is a reverse relationship between the level of resilience and the aggression of high school students.
2. There is a difference among male and female high school students in terms of level of resilience.

Methodology

The present study is correlational. The statistical population of this study included all female high school students in Ghorveh city in the academic year of 2015-2016. In this study, considering the fact that the number of high school students in Ghorveh city was 740 (380 males and 360 females), the sample size was calculated to be 253 using Cochran sampling formula ($t = 1.96$, $p=q = 0.05$, $P < 0.05$). Out of them, 130 were male and 123 were female. Multi-stage cluster sampling was used for sampling. Measurement tool

Connor and Davidson Resilience Questionnaire (RISC CD): This questionnaire was developed by Connor and Davidson (2003) by reviewing research sources (1979-1999) in the field of resilience. The psychometric properties of this scale were evaluated in 6 general populations referring to primary care units, psychiatric patients, patients with general anxiety disorder and two groups of patients with post-traumatic stress. Developers of this scale believe that this questionnaire is well able to distinguish resilient people from the non-resilient people in clinical and non-clinical groups and can be used in research and clinical settings. The questionnaire has 25 items which are scored on the Likert scale between 0 (completely false) and 4

(always true). The score of each subject is equal to the sum of scores or total values obtained from the questions, so the minimum score that a person can obtain in this questionnaire is 0 and the maximum score is 100. Its cutting point is 80.4% for normal people and 47.8% for people with posttraumatic stress disorder. This scale has been standardized by Mohammadi [13] in Iran. In his research, he obtained the reliability coefficient 0.89 using Cronbach's alpha method. In this research, to determine the validity, the correlation of each item with the total score was calculated first, and then the factor analysis method was used. Calculation of the correlation coefficient of each item with total score showed that, except for item 3, coefficients ranged from 0.41 to 0.64. In the next stage, the scale items were factor analyzed using principal components method. Using the Cronbach Alpha method in a sample of 88 people, Javadi [28] in his research obtained a reliability coefficient of 0.79. In the Jokar research [29], the researcher obtained the reliability coefficient of 0.93 using Cronbach's alpha method for this questionnaire. 2-Ahvaz Aggression Inventory (AAI): This questionnaire was developed by Zahedifar et al. (2000) and it consists of 30 items, in which 14 items assess the anger factor and 8 items assess invasion and 8 items assess malice. This inventory is a self-reporting scale and each item has 4 options. These four options are never, rarely, sometimes, and always for each of these options, the values of 0, 1, 2, and 3 are considered, respectively. On this scale, the question 18 has a negative factor load and is scored reversely. The overall score of this scale is 0 to 90. Individuals whose score is less than mean will have less aggression and those with score higher than mean score will have high aggression. The re-test coefficients between the two subjects were 0.70 in two intervals. On this scale, the Cronbach's alpha coefficient was 0.874 [30]. In order to measure the validity of the scale, simultaneous implementation of several scales, including Minnesota's multi-aspect personality test was used, which its correlation coefficient with this scale was significant. In general, it can be concluded that the coefficients of validity of this scale are satisfactory [30]

Findings

Table 1: Describing the level of resilience among high school students by gender

Variable		n	mean	SD	min	max	95% confidence interval for mean		
							Lower limit	Upper limit	
level of resilience of students	Gender								
		Female	122	54.14	15.28	18	93	51.4	56.88
		Male	126	63.36	14.04	34	100	60.89	65.83
Total		248	58.83	15.33	18	100	56.9	60.74	

(Table 1) presents the demographic and descriptive characteristics of the studied groups. The data of this table show that the mean score of female in the resilience is 54.14 and the standard deviation is 15.28, and the mean score of males in the resilience is 63.36 and the standard deviation is 14.04.

Table 2: Correlation test of two variables of level of resilience and level of aggression among high school students

variables	n	Correlation Coefficient (r)	Probability value
The relationship between resilience and student aggression	246	-0.27-	0.001

In order to investigate the relationship between resilience and aggression, Pearson correlation test was used. The results show a reverse and significant relationship between resilience and aggression ($r = -0.275, P < 0.01$). Therefore, it can be concluded that by increasing the resilience, the amount of aggression decreases.

Table 3: Analysis of variance for the significance of regression in simple linear regression

Source of variations	Sum of squares	df	Mean squares	value F	Probability value	The coefficient of determination) (R^2)	Durbin-Watson
Regression	4060.857	1	4060.857	19.986	0.001	0.076	1.713
residuals	49578.313	244	203.19				
Total	53639.171	245					

In (Table 3), ANOVA analysis is presented to investigate the linearity of the relationship between resilience and aggression. According to the results of this study, the linearity of the relationship is significant [$F=19.986, P<0.01$].

Table 4: Regression line coefficient test
Dependent variable: aggression

Model	Non-standardized coefficients		Standardized coefficients	t	Probability value
	b	SD	Beta		
Constant value	39.104	3.599		10.866	0.001
Resilience	0.265-	0.059	0.275-	-4.471	0.001

In (Table 4), the test of regression coefficients is presented, which indicates that the slope of the regression line is (-0.265) [t=-4.471, P< 0.01]. It means that the resilience can predict aggression. Additionally, according to the results of this table, the intercept value of regression line is 39.104 [t=10.866, P< 0.01]. The equation of the regression line fitted to the data is as follows:

$$\text{Aggression} = 39.104 - 0.265 * \text{resilience}$$

Durbin-Watson statistic value is 1.713, which is larger than 1.5, indicating that there is no auto-correlation among errors in the regression model.

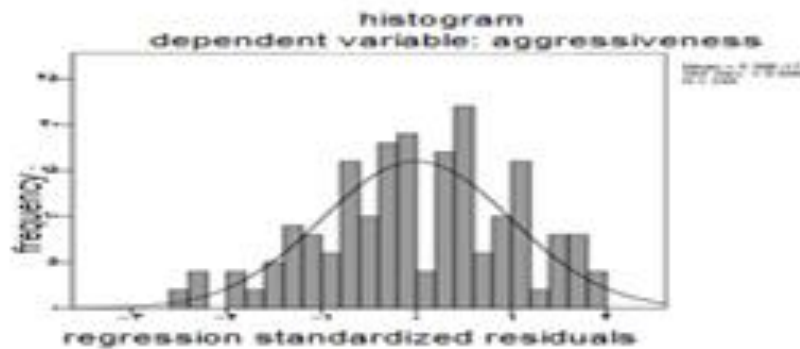


Chart 1: Distribution diagram and relationship between resilience and aggression

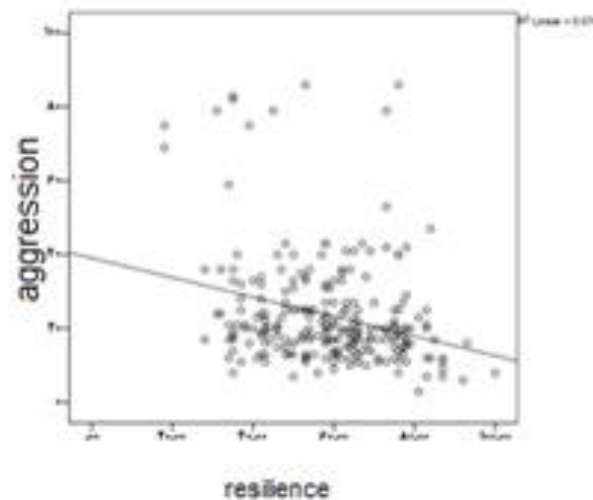


Chart 2: Residuals histogram

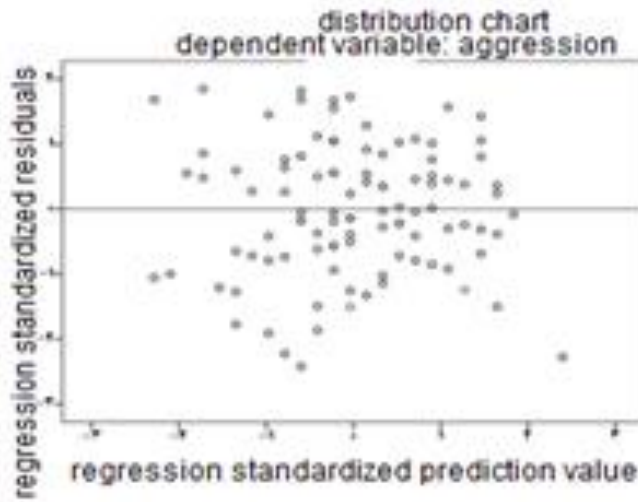


Chart 3: Normal probability chart of regression standardized residuals.

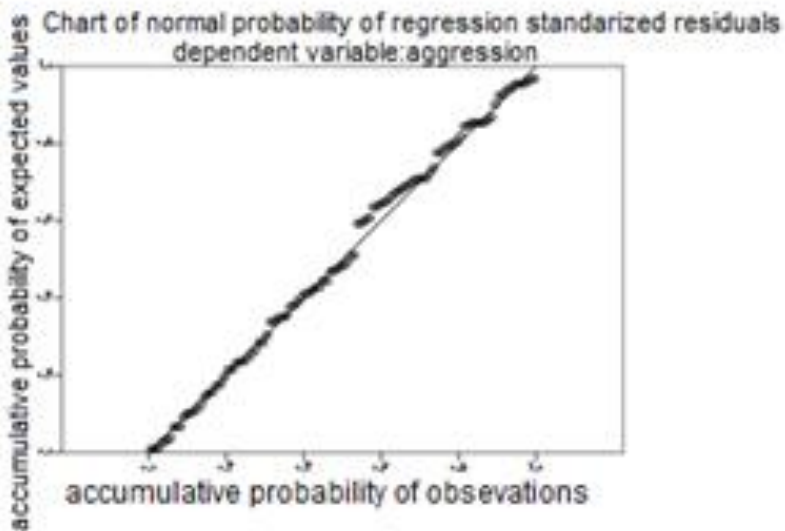


Chart 4: predicted values versus residuals.

The distribution (chart 1) also shows the relationship between the type of resilience and aggression. (Chart 2) shows the error symmetry in the regression model, and(Figure 3) shows normality of errors in the regression model and the (Chart 4) indicates residuals versus predicted values indicating the suitability of the model and the constant error of variance.

Table 5: Equality test of two independent communities for the level of resilience among female and male high school students

		Levene test for equality of variances		T test for equality of means					
		F	Probability level	t	df	Probability value	Difference of means	95% confidence interval	
								Upper limit	Upper limit
Student resilience	Assuming the equality of variance	1.72	0.191	4.959-	246	0.001	9.22-	12.89-	5.56-

(Table 5) compares the resilience among male and female students and according to the results of the table, we first examine the equality of variances [$F=1.72$, $P=0.191 >0.05$] showing that the variances do not differ significantly. Then, we evaluated the mean equality of resilience level among males and females [$T = -4.9959$, $P>0.01$], which shows a significant difference between the level of resilience of male and female students, meaning that males have more resilience than females.

Discussion and conclusion

The objective of this study was to evaluate the relationship between resilience and aggression in high school students and also to compare the resilience between male and female students. The findings of this study showed that there is a significant relationship between resilience and aggression that due to the negative correlation coefficient, it can be concluded that with increasing student resilience, their aggression decreases. Since investigating the relationship between resilience and aggression has not been studied so far, and due to many investigations of the researcher in this field, no research was found on this issue. Consequently, despite the fact that the present study could be considered as a novelty, it is not possible to compare the result obtained in this study with other results, but in the explanation of this finding, we can refer to some cases. In explaining this finding, it can be argued that students with high resilience have characteristics such as order, optimism, problem-solving skills, autonomy, intelligence, hardiness, and high self-esteem [31]. Self-esteem is one of the important indicators of resilience [32; 31], and since various studies have confirmed the relationship between low self-esteem and aggression [33 and 34, and 19], it can be argued that individuals with high resilience show less aggression. Social incompatibility [35] is associated with low self-esteem [36]. Some scholars believe that aggression occurs when an individual's self-esteem is threatened. Self-esteem threat results in negative emotions and negative emotions create aggression and anger [33 and 34]. People with high resilience due to resilience characteristics are determined and controlling their surrounding events. In other words, they help people know how to cope with different and important life issues and enable them consider even unpleasant events as an opportunity. People with high resilience have a strong sense of progress and control, and their self-esteem is high and they remain calm and cool in critical condition. Ultimately, they achieve progress in most aspects of life [31]. Additionally, in the area of resilience and its outcomes, a number of studies have pointed to a higher level of mental health [7; 8], and students with high resilience have high optimism [31]. On the other hand, aggression has a negative correlation with mental health [37] and optimism [38]. Researchers have also examined other common characteristics in resilient people, including empathy [32], and, on the other hand, various studies have shown that empathy enhances levels of aggression [39, and 40]. Therefore, it can be stated that there is an inverse relationship between resilience and aggression. Regarding the comparison of resilience among male and female students as the other objective of this study, the findings of this study showed that there is a significant difference among male and female students in terms of level of resilience, meaning that males have more resilience than females. The findings of this study are consistent with Harrison's [41] research findings, and it can be said that the variable of gender could affect the resilience. In explaining this finding, we can refer to two factors of hardiness and self-esteem as factors affecting the resilience of individuals. More than 400 studies around the world have confirmed hardiness as a key to resilience [31]. Various studies have highlighted hardiness as one of the important characteristics of resilient people [42], and on the other hand, various studies have shown that men have higher levels of hardiness than women [43, 44; 45]. As a result, it can be argued that men

have more resilience than women. Most of researchers believe that resilient people are shared in similar factors, including higher self-esteem and seriousness [32]. People who have high resilience have also high self-esteem and self-confidence and self-belief, and they remain calm and cold in critical condition [31]. In addition, various studies have considered self-esteem as one of the most important characteristics of resilient people [46] and, on the other hand, various studies including [47] found that males had a higher level of self-esteem than females. In addition, other studies [47] found similar results. Based on these findings, the evaluation of females of themselves is weak and it seems that female's attitude to their gender to be very effective in their self-esteem and as self-esteem is one of the important indicators of resilience, it can be concluded that females have less resilience than males. As one of the limitations of this study, we can state that male and female students can be different in terms of intelligence, and the difference in their resilience might be due to this difference. Therefore, it is suggested that other researchers, who aim to conduct a study similar to this study, to match subjects in terms of intelligence so that regardless of differences in intelligence, it is revealed that whether their resilience is different or not. This could also true in relationship between resilience to aggression. It is also suggested that this study to be carried out on other age groups.

References

1. Rafezi, Z (2004). Investigating the Effect of Anger Control Training on Aggression among 15 to 18 years old females in High Schools of Tehran. Master thesis, University of Social Welfare and Rehabilitation Sciences of Tehran.
2. Benard , B.(١٩٩١). *Fostering resiliency in kids: Protective factors in the family, a. school, and community*, google scholar.com
3. Rutter,M.(1993) . Resilience: Some eonceptual eonsideration
4. . Waller , M .A .(2001) . Resilience in ecosystemic content
5. Conner , K.M.,& Davidson , J.R.T. (2003) . Development of a
6. Mandel , G.(2006) . *Cultivating resiliency a guide for parent*
7. Lazarus,A.(2004) . *Relationship amony indicators of child*
8. Abolghasemi, A , & Taklavi Varaniab,s. (2010). Resilience & Perceived stress: Predictors of Life satisfaction in
 - i. the students of success & Failure. *Procedia social*
9. Benetti,c.,& Kambouropoulos,N. (2006) . Affect- regulated
10. Weed , k , & Borkowski , j .(2006) . stability of resilience in
11. Garg , P.,& Rastogi, R .(2009) .Emotional Intelligence & stress
12. Zakeri , H., Jowkar , B. , & Razmjoe , M. (2010) . Parenting
13. Mohammadi, M (2005). Investigating the factors affecting resilience in subjects at risk of drug abus. PhD dissertation, Tehran University of Social Welfare and Rehabilitation Sciences.
14. Harnish,R.(2005). student Resilience & academic Perfirmanace
15. Smith , DC , & Furlong , MJ. (1998) . Introduction to the special issue: Addressing
16. Eckardt , Cl. , & Defenbacher , JL. (1995) .*Diagnosis of anger disorders. In H. Kassinove (ed.),anger disorder: Definition, diagnosis,and treatment.* Washington D.C: Taylor and Francis,: 2747.
17. Archer, J.(2004). Sex differences in aggression in realworld setting: A meta-analytic review. *Rev General Psychol* , 8 , 291-322.
18. Donnellan ,MB., &Trzesniewski, K H., & Robins, RW., & Moffitt, TE., & Caspi, A. (2005). Low Self-esteem is related to aggression, antisocial behavior, and delinquency, *Psychological Science*, 16, 328 –333.
19. Webster, GD. (2006). Low self-esteem is related to aggression, but especially
 - a. when Controlling for gender. *A replication and extension of Research in*
20. Sukhodolsky, DG.,& Kassinove, H., & Gorman, B S. (2004). Cognitive-behavioral
 - i. therapy for anger in children and adolescents: A meta-analysis.
 - ii. *Aggression and Violent Behavior*, 9, 247-269.
21. Espnes ,GA.(1996). The Type 2 Construct and Personality Traits: Aggression, Hostility and Depression. *Personal Individ Diff* , 20 , 641-648.
22. Materazzo, F., & Cathcart ,S.,& Pritchard, D.(2000). Anger, Depression, Coping Interactions in Headache Activity and Adjustment: A Controlled Study. *J*

23. with major in guidance & Connseling . UniversiTy of wisconsin – stont .
 - a. Kaye, DL., & Montgomery, ME., & Munson, SW. (2003). *Child & adolescent mental health*. philadelphia: Lippincott william and wilkins.
24. Sadock, B J., & Kaplan, H., & Sadock, VA. (2007). *Synopsis of psychiatry: Behavioral science clinical psychiatry*. Philadelphia: Lippincott, William and
 - a. Wilkins.
25. Devine, J., & Gilligan, J., & Miczek, K A., & Shaikh, R., & Pfaff, D. (2004). *Youth violence: Scientific approaches to prevention*. New York: New York Academy of Sciences .
26. Kelnke, C.(1998).*Coping with life challenges* .2nd ed.Pacic grove , CA:Brooks/cole.
27. Kiani Dehkordi, M (2004). Investigating the objective and intervening factors in resilience to drug dependence in males and females dependent or non-dependent on drugs. PhD dissertation, Tehran University of Social Welfare and Rehabilitation Sciences.
28. Javadi, R. (2008). Relationship between family functioning and resilience to substance use in male students
29. Jokar, B (2007). The mediating role of resilience in the relationship between emotional intelligence and general intelligence and life satisfaction, *Journal of Contemporary Psychology*, 2, 2
30. Zahedifar, Sh (2010). scale validation for measuring aggression. <Www.sid.ir
31. Maddi ,S.R. , & Khoshaba,D.M.(2005). *Resilience at work,NY:Amacom*.
32. Issacson, B.(2002). *Characteristics & enhancement of*
33. Goode, E. (2002). *Deflatingself esteem'srole in society's liis*. The new York
34. Slater, (2002).*The trouble with self-esteem :Maybe thinking highly of yourself isthe real problem*. New York Times Magazine, Section 6, p. 44
35. Barry,TC., & Grafeman, GS., & Adler, KK. , & Picard, DJ. (2007). The
36. Cramer, P., & Jones, C J. (2008). Narcissism, identifications and longitudinal change
 - a. in psychological health: dynamic predictions. *Journal of research in*
37. Carlson, KS., & Gjerd, P F. (2009). Preschool personality antecedents of narcissism
 - a. in adolescence and young adulthood: A20- year longitudinal
38. Lapsely, D k., & Aalsma, MC. (2006). An empirical typology of narcissism and mental health
 - a.in late adolescence. *Journal of adolescence*, 29, 53-71.
39. Gariagordobil, M., & Garcia de Galdeano, P. (2006). Empathy in children aged
 - a. 10 to 12 years. *Psicothema*, 18(2),180-186.
40. Lovett, BT., & Sheffield, RA. (2007). Affective empathy deficits in aggressive children and adolescents: A critical review. *Clinical Psychology Review*, 27, 1,1-13.
41. Harrison , L.M.(2000) . *A study of the relationship between Personal Resiliency & academic achivment in middle school students in alabama* . unpublished doctora dissertaTion , Auburn universiTy. BeLL & HowELL informaTion & Learning compang.