COMPARISON OF THE RESILIENCE OF HEARING-IMPAIRED AND NORMAL MALE AND FEMALE STUDENTS

Dr. Reza RAHIMI

Assistant Professor, Department of Psychology, Payame Noor University.

Email: reza.psychology@gmail.com

ABSTRACT

Purpose: This study was to compare the resilience of hearing-impaired and normal male and female students of high schools in Qorveh. Method: This is a causal-comparative (ex post facto) research. 253 normal students (130 boys and 123 girls) were selected by multistage cluster random sampling and 32 hearing impaired students (17 boys and 15 girls) by available sampling method. Subjects were asked to complete the Connor and Davidson resilience scale. T-test was used to analyze the data. Results: The results of comparisons showed that normal boy and girl students were significantly superior to hearing-impaired. Conclusion: Extensive attention should be paid to factors affecting resilience, including problem solving skills, independence and self-esteem.

Keywords: Resilience, Hearing-Impaired.

INTRODUCTION

According to World Health Organization (WHO) statistics, the types of psychosocial harm are increasing concerningly in today's societies. Psychosocial disorders and anti-social behaviors have been ascending especially in youth and children. Due to the consideration of human talents and abilities and highlighting them instead of focusing on individuals' defects and shortcomings, positive psychology approach has attracted researchers and psychologists in recent years. It emphasizes identification of structures and methods that promote the individuals' health and well-being. Resilience is one of the critical strategies that has been recently considered by researchers in this approach. By observing children in various environments, it is raised that why some of them have particular flexibility in dealing with stressful factors, but other children do not. The answer to this question refers to a relatively new concept called resilience. The term Resilience has Latin root meaning to jump back. Although resilience can generally be viewed as the ability to escape from a difficult or destructive condition or jump it back, there is no widely accepted definition of the term (Rutter, 1993). Resilience is a factor that leads to effective flexibility and coping with stressful factors and situations. It is a positive adaptation in response to adverse circumstances (Waller, 2001). Resilience, of course, is not only the stability against the harms or the causing conditions, nor a passive state in dealing with dangerous conditions, but also it is an active and constructive participation in its peripheral environment. Resilience is an individual's ability to establish a biological-psychological balance in a dangerous situation (Connor & Davidson, 2003).

Researchers consider resilience and vulnerability as two opposite poles of a continuum. Vulnerability refers to growing the likelihood of negative consequences for risks (Ferguson &

Zemmerman, 2005). Mandel et al. (2006) define resiliency as an effective flexibility against the life events. Despite different definitions, resilient people share the same factors, such as: higher intelligence, lower diversityism, and less affiliation with delinquent peers. Researchers have also examined other common characteristics of resilient people: higher autonomy, independence, empathy, commitment to work, problem solving skills, and good relationships with peers (GrigorGreen, quoted by Issacson, 2002). Several studies have explored the relationship of resilience with different variables. One of the studies revealed that resilience is associated with a higher level of mental health and life satisfaction (Lazarus, 2004; Abolghasemi & Taklavi, 2010). Also, the relationship of resilience with self-esteem (Benetti & Kambouropoulos, 2006), maternal age (Weed & Borkowski, 2006), emotional intelligence (Garg & Rastogi, 2009) and parenting styles (Zakeri et al., 2010) has been investigated. Celest Benetti and Nicolas Kambouropoulos (2006) examined the indirect effects of anxiety and resilience on self-esteem. Their results showed that resilience increases self-esteem and reduces the anxiety. In their research titled "resilience stability among the children's of young mothers", Kerry Weed and Jhon Borkowski (2006) realized 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.

Pooja Garg and Reno Rastogi (2009) studied the relationship between emotional intelligence and resilience. Their results demonstrated that students with high emotional intelligence were more resilient to stress. Zakeri, Jokar and Razmjoo (2010) studied the relationship between resilience and parenting styles and realized that the acceptable control style was a significant positive predictor of resilience while strict control styles and acceptance of freedom did not have significant prediction power for resilience. Gio (1997, quoted by Mohammadi, 2005) in his research on middle school students concluded that there is a positive correlation between resilience score and academic achievement. In the research entitled "resilience in students and academic performance", Harnish (2005) concluded that resilience training can improve students' resilience, which is effective in increasing their academic performance.

Our society is interested in and concerns the individuals' growth and evolution. However, there is a lack of research on resilience, and since the resilience variable has been studied only for healthy people not exceptional individuals, especially hearing impaired children, no research was found on resilience of normal and hearing impaired boy-girl students. Studies have shown that resilience strategies can help students achieve academic success. Schools and families can increase resilience by creating an environment that is reasonably facilitated. Individuals can acquire some resilience features in their lives. The increased resilience will be achieved through the mental health and educational achievements for children and young people (Davis, 1999 quoted by Kiani Dehkordi, 2004).

According to UNESCO's statistics (1974), an average of 16 percent of 7-18-year-old children are exceptional. Based on the official report of the Ministry of Education's Planning Office, there are about 2 million exceptional children in Iran and since about 1.5% of them suffer from hearing loss (Bani Hashemi & Gholamzadeh Saffar, 2010), it seems necessary to conduct research on specific issues of these children. On the other hand, there are only few studies on hearing impaired children, and particularly no research was found on these children's resilience. In this study, a hearing impaired student is referred to the one who has a moderate to severe hearing loss (56-70 dB) and a normal student is referred to the one without any disorder. Hearing impaired students and their families experience more emotional instability and suffer

from psychological stress; as a result, they have a variety of difficulties, including educational problems. Thus, the need for research on their resilience evaluation seems necessary.

Due to the significance of the topic and regarding what mentioned above, this study was conducted with the aim of resilience comparison among the male and female official report of the Ministry of Education's as well as among the normal and hearing impaired students. The hypotheses are as follows:

1. There is a difference in the resilience rate of the male and female students of junior schools.
2. There is a difference in the resilience rate of the hearing impaired and normal students of junior schools.

METHOD

This is a causal-comparative (ex post facto) study. The statistical population included all normal and hearing impaired male and female students of middle schools in Qorveh city in the academic year of 2016-2017. Given that there were 740 normal students (380 boys and 360 girls) and 32 hearing impaired students (17 boys and 15 girls), normal students were selected using multi-stage cluster random sampling and the hearing impaired subjects were selected through available sampling. Using Cochran sampling formula (p = q = 0.05, t = 1.96, p <0.05), the sample size was 253 subjects, of which 130 were boys and 123 were girls.

Instrument

The Connor-Davidson Resilience Scale (CD-RISC): reviewing literature (1979-1999) on the resilience, this questionnaire was developed by Canner & Davidson (2003). The psychometric properties of this scale were examined for 6 groups: general population, referrers to primary care departments, psychiatric outpatients, patients with generalized anxiety disorder and two groups of post-traumatic stress disorder patients. The developers of this scale believe that it is well documented to distinguish resilient individuals from non-resilient in clinical and non-clinical groups and can be used in clinical and research settings. The questionnaire consist of 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 total score or the total values obtained from the questions, so the minimum score that a person can obtain is 0 and the maximum score is 100. The cutting point is 80.4% for normal people and 47.8% for people with posttraumatic stress disorder. This scale was standardized by Mohammadi (2005) in Iran. Using CD-RISC and the Cronbach's alpha, he obtained a reliability coefficient of 0.89. For validation, first, the correlation of each item with the total score was calculated and then the factor analysis method was used. The correlation coefficient of each item showed that, except Item 3, coefficients ranged from 0.41 to 0.64. Next, the items were subjected to factor analysis using principal components method. One factor was extractable on the scale to determine the number of factors by using the scree plot slope and the specific value higher than 1. Javadi (2008) obtained a reliability coefficient of 0.79 using the Cronbach Alpha method in a sample of 88 subjects. Jokar (2007) also obtained the reliability coefficient of 0.93 by Cronbach's alpha method for this questionnaire.

Descriptive statistics such as bar graphs, mean and standard deviations were used to analyze the data. Moreover, t-test was used to examine the hypotheses. All analyses were done via SPSS.

FINDINGS

Table 1: Resilience degree among junior schools students by hearing loss

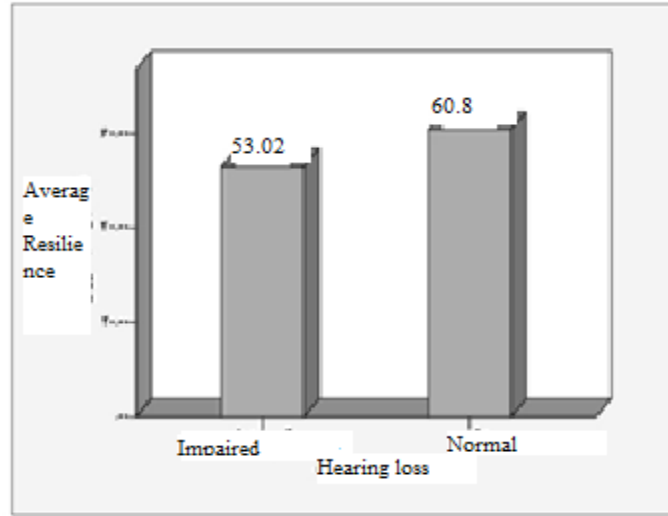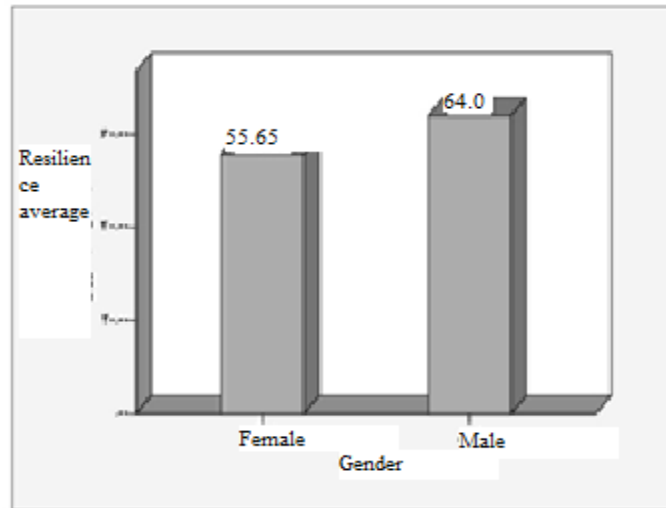| Variable			No.	M	SD	Min	Max	confidence level of 95% for the mean	
								lower limit	Upper limit
Students' resilience level	Hearing loss	Impaired	۳۲	۵۳/۰۳	۱۱/۸۳	۳۵	۷۷	۴۸/۷۶	۵۷/۲۹
		Normal	۲۴۸	۶۰/۸	۱۵/۷۱	۱۸	۱۰۰	۵۸/۸۴	۶۲/۷۷
	Gender	female	۱۳۷	۵۵/۶۵	۱۵/۴۷	۱۸	۹۳	۵۳/۰۴	۵۸/۲۷
		Male	۱۴۳	۶۴	۱۴/۴۳	۳۴	۱۰۰	۶۱/۶۱	۶۶/۳۸
	Total		۲۸۰	۵۹/۹۱	۱۵/۴۹	۱۸	۱۰۰	۵۸/۰۹	۶۱/۷۴

Graph 1. Average resilience by hearing loss

Graph 2. Average resilience by gender

Table 1 displays the demographic and descriptive characteristics of the studied groups. Graph 1 and 2 present the average resilience rate among the students in terms of hearing and gender.

Table 2: Equality test of two independent populations for the resilience rate of students

		Levene's test for equality of variances		t-test for equality of means				Confidence interval 95%	
		F	Probability value	t	Degree of freedom	Probability value	Means difference	Lower limit	Upper limit
Resilience rate	Assuming the equality of variances	۱/۰۴	۰/۳۰۹	-۴/۶۶	۲۷۸	۰/۰۰۱	-۸/۳۴	-۱۱/۸۶	۴/۸۲

Sig. level, 0.01

 Table 2 shows the comparison of girl-boy students' resilience and according to the results of the table, we first examine the equality of variances [F=104, P= 0.309<0.01], which indicates the variances do not differ significantly. Then, the equality of the average resilience was evaluated [t=-4.66, P=0.001<0.01], which suggest a significant difference between the resilience rate of male and female students; that is, boys are more resilient than girls.

Table 3: Equivalence test of two independent populations for the resilience rate of normal and hearing impaired students

		test for equality of variances		t-test for equality of means				Confidence interval 95%	
		F	Probability value	t	Degree of freedom	Probability value	Means difference	Lower limit	upper limit
Resilience rate	Assuming the inequality of variances	۶/۶۴	۰/۰۱	-۳/۳۵	۴۶/۴۱	۰/۰۰۲	-۷/۷۷	-۱۲/۴۳	-۳/۱۱

Sig. level, 0.01

Table 3 shows the comparison of normal-hearing impaired students' resilience. According to the results, we first examine the equality of variances [F=6.64, P=0.001<0.01], suggesting that the variances are significantly different. Then, the equality of the average resiliency was evaluated for hearing impaired and normal students [t=-3.35, P=0.002<0.001], indicating a significant difference in students 'resilience level. It means the normal students are more resilient than the other group.

DISCUSSION AND CONCLUSION

This study was to compare the resilience of male and female students as well as normal and hearing impaired ones. The findings regarding the male and females' resilience showed that there is a significant difference between their resilience level; that is, boys are more resilient than girls. Our findings are in line with Harrison's (2000) results, and it can be said that gender can be considered as an effective factor in resilience. This finding is explained regarding the two factors of hardiness and self-esteem as the factors affecting the individuals' resilience. More than 400 studies around the world have confirmed the effectiveness of hardiness in resilience (Medi and Alba, 2005).

Hardiness is deemed as one of the important characteristics of resilient people in various studies (Skehill, 2001). However, many studies have also shown that men have higher levels of

hardiness than women (Bayazi & rastghari, 2005; Ahadi & Karbaksh, 2008; Shepard & Kashani, 1991). As a result, it can be argued that men are more resilient. Most scholars believe that resilient people share common characteristics, including higher self-confidence, greater seriousness and more self-esteem (Isaacson, 2002). Those with higher resilience take the advantages of higher self-esteem and self-confidence. They keep calm and cold in critical conditions (Maddi & Khoshaba, 2005). Further, self-esteem as one of the most important characteristics of resilient individuals has been proved in previous studies (Faniyev, 2008 quoted by Kaveh, 2009). On the other hand, it's been revealed that men have a higher self-esteem than women (Ghods Mir Heidari & Takli, 2010). Other studies have also provided the similar results (Vinotta, 1991 & Stinem, 1998, Peggy Edward, 2000, quoted by Ghods Mir Heidari & Takli, 2010). Based on these findings, the girls underestimate themselves and girls' attitude to their gender seems to be very effective in their self-esteem. In addition, since self-esteem is a salient indicator of resilience, it can be concluded that girls are less resilient than boys.

Comparison of resilience among hearing impaired and normal students showed that there is a significant difference in their resilience level: normal students are more resilient than the students with hearing loss. Since the comparison of resilience among hearing impaired and normal people has not been investigated so far, and despite searching of the researcher, no research was found in this area. Thus, though the present research can be seen a novel study, it is not possible to compare the results obtained in this section with other results. But, this finding can be explained through some cases. General health in the Charter of the World Health Organization is considered to be a good state of physical, mental and social wellbeing (Ashtiyani, 2006). On the other hand, self-esteem is one of the topics that can be mentioned in the field of health, and various studies have reported a positive relationship between general health and self-esteem (Malekpour & Bani Hashemian, 2010; Neisi et al., 2005; Neissi & Shanni, 2005; Mann et al., 2004; and Lowery et al., 2005). Moreover, considering that self-esteem is an important indicator of resilience (Isaacson, 2002; Maddi & Khoshaba, 2005), it can be argued that normal people are more resilient than those with hearing loss. Also, due to the likelihood of inability to communicate well and the feeling of inadequate, psychological disturbances might emerge in hearing impaired individuals (Kushalnagar et al., 2007). Hearing loss leads to decreased quality of life, isolation, frustration, decreased social activities and feelings of rejection (Arlinger, 2003). This is while individuals with high resilience experience more levels of self-esteem (Maddi & Khoshaba, 2005) and resilient attributes such as optimism and hope are high among them (Skehill, 2001). Sociability and ability to establish interpersonal relationships can also be observed in them (Faniyev, 2008, quoted by Kaveh, 2009). Further, positive and significant relationships among friendship, interpersonal relationships and resilience have been realized (Work et al., 1990; Doll & Green, 1998; Taylor et al., 2002; Epstein, 2002; Mathur, 2003; Richardson & White, 2003).

Therefore, it can be argued that normal and healthy people are more capable of resilience than the hearing impaired ones. As a limitation, it can be said that in this study, male and female students as well as hearing impaired and normal students can be different in terms of intelligence, and the difference observed in their resilience can be due to this issue. Hence, it is suggested, first, to match the individuals by their intelligence in order to identify whether their resilience is different or not, irrespective of the differences in intelligence. It is also suggested

that other groups of exceptional children, including blind children, be investigated in future studies.

References

Abolghasemi, A., & Taklavi Varaniab, s. (2010). Resilience & Perceived stress: Predictors of Life satisfaction in the students of success & Failure. Procedia social and behavioral sciences, 5, 748-752.

Ahadi, M.; & Karbakhsh, M. (2008). A review of the degree of hardiness in medical specialist assistants. Psychological studies, 4, 4.

Arlinger, S. (2003). Negative concequences of uncorrected hearing loss- a review. Int J Audiol, 42, 2, 17-20.

Ashtiyani, F. (2006). Health Psychology. Tehran: Be'sat Publications.

Bani Hashemi, SAb.; & Gholamzadeh Saffar, H. (2011). Exceptional children education. Tehran: Payame Noor University.

Bayazi, MH. & Rastghari. YA. (2005). Relationship of behavioral type 2, hardiness and stress with coronary heart disease. Psychological Research, 1, 8.

Benetti, c., & Kambouropoulos, N. (2006). Affect- regulated indirect effect of trait anxiety & trait Resilience on self – esteem. Personality & Individual differences, 41, 341- 352.

Conner, K.M., & Davidson, J.R.T. (2003). Development of a new resilience scale: The Conner-Davidson Resilience Scale (CD-Rise). Depression & Anxiety, 18, 76 - 82.

Doll, B., & Green, K. (1998). Resilience and peer friendship. paper presented at annual meeting of the American Educational Research Association, san diego, ca, 13-17.

Epstein, JL. (2002). School, family, community partnership: preparing educators and improving school. Boulder, co: Westview.

Fergusen, s., & Zemmerman, M.A. (2005). Adolescent resilience: A framework for understanding healthy development in the face of risk, Proquest health & medical complete.

Garg, P., & Rastogi, R. (2009). Emotional Intelligence & stress Resiliency: A Relationship study. International Journal of Educational Administration, 1, 1-16.

Ghods Mir Heidari, FA.; & Takli, H. (2010). The relationship between self-esteem and physical fitness of male and female students of Tehran University. Exercise-motor learning, 100, 85-5

Harnish, R. (2005). student Resilience & academic Perfirmance Recruhtment & Retention. higher education,11, 19.

Harrison, L.M. (2000). A study of the relationship between Personal Resiliency & academic achievement in middle school students in Alabama. Unpublished doctoral dissertation, Aubum University. BeLL & Howell information & Learning Company.

Issacson, B. (2002). Characteristics & enhancement of resilience in young people. A Research paper of master of science degree with major in guidance & ConnseLing University of wisconsin – stont.

Javadi, RK. (2009). Relationship between family functioning and resilience against drug use in male students of risky high schools. Master thesis, University of Social Welfare and Rehabilitation Sciences of Tehran.

Jokar, B. (2007). The role of resilience in the relationship of emotional intelligence and public intelligence with life satisfaction. Journal of Contemporary Psychology, 2, 2.

Kaveh, M. (2009). Developing a program to increase the resilience against stress and its impact on the life quality of mentally retarded parents. Master thesis, Payame Noor University, Tehran.

Kiani Dehkordi, M. (2004). Investigating the objective and mediative factors of resilience against the drug-dependence among the boys of drug-dependent/independent mans, Ph.D. thesis, Tehran University of Social Welfare and Rehabilitation.

Kushalnagar, p., & Krull, K., & Hannay, J. (2007). Intelligence, parental depression and behavior adaptability and deaf children being considered for cochlear implantation. J deaf stud deaf educ, 21, 3, 364-369.

Lazarus, A. (2004). Relationship among indicators of child & Family resilience & adjustment following the september 11, 2001 tragedy. The emory center for myth & ritual in American Life.

Lowery, S.E., & Kurpius, S.E.R., & Befort, C., & Blanks, E.H. (2005). Body image, self-esteem and health- related behaviors among male and female first year college students. Journal of College Student Development, 46,612-623.

Maddi, S.R., & Khoshaba, D.M. (2005). Resilience at work, NY: Amacom.

Malekpour, M.; & Bani Hashemian, K. (2010). Comparison of the relationship of general health with pessimism and self-esteem in Shahed and non-Shahed students in Shiraz University of Medical Sciences. Journal of Isfahan Medical School. 120, 28.

Mandel, G. (2006). Cultivating resiliency, a guide for parent & school personnel. Published by scholastic press.

Mann, M., & Hosman, C., & Schaalma, H., & Vries, N. (2004). Self esteem in a broad spectrum approach for mental health promotion. Health Education Research, 19, 357-372.

Mathur, R. (2003). Friends activities and Well-being in children and adolescence Dissertation.India, United states: university of purdue.

Mohammadi, M. (2005). Investigating the factors affecting resilience in subjects at the risk of drug abuse, Ph.D. Thesis, Tehran University of Social Welfare and Rehabilitation.

Neisi, A., & Shahani Yeilagh, M. (2005). Effect of assertion training on assertion, self-esteem, social anxiety and mental health in male students with social anxiety in Ahwaz. Journal Educational Sciences and Psychology, 8,11-30.

Neisi, A., & Shahani Yeilagh, M., & Farashbandi, A. (2005). Investigation of simple and multiple variables of self-esteem, generalized anxiety, perceived social support and psychological hardiness with social anxiety in female students in Abadan. Journal Educational Sciences and Psychology, 12,137-152.

Richardson, E., & wait, P. (2002). Mental health Promotion through resilience & resiliency education. International Journal of Emergency Mental Health, 1, 4, 65-75.

Rutter, M. (1993). Resilience: Some conceptual consideration. The journal of Adolescent health, 8, 14, 626-690.

Sheppard, J., & Kashani, G. H. (1991). The relationship of hardiness, gender and stress to health outcomes in adolescents, Journal of personality, 59(4),747-768.

Skehill, C.M. (2001). Resilience, coping with an extended stay out door education program and adolescent mental health Canberra: university of Canberra: dissertation for the degree of honurs.

Taylor, SE. & Diekerson, SS., & Klein, LC. (2002). Toward a biology of social support. Handbook of positive psychology. oxford, England: University Press.

Waller, M.A. (2001). Resilience in ecosystemic content Evolution of the concept. American journal of orthopsychiatru, 3, 71, 290-297.

Weed, k., & Borkowski, j. (2006). Stability of resilience in Children of Adolescent mothers. Applied Developmental psychology, 27, 60-77.

Work, wc., & cowen, e., & parker, gw., & wyman, pa. (1990). stress Resilience children in an urban setting. Journal of primary prevention, 11, 3-17.

Zakeri, H., Jowkar, B., & Razmjoee, M. (2010). Parenting styles & Resilience. Procedia social & Behavioral sciences, 5, 1067 – 1070.