

## Emotional Intelligence and Resilience among Hearing Impaired Adolescent



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**Abstract:** *The present research paper was intended to examine the relationship between the resilience and emotional intelligence of hearing-impaired adolescents. The convenient sampling technique was used to collect the data from the population. The sample consisted of n=504 hearing-impaired adolescents from special education institutions. Connor-Davidson's Resilience scale and Wong and Law's Emotional Intelligence scale were analyzed. results demonstrated that there was a significant relationship between resilience and emotional intelligence. It was also found that resilience positively predicted emotional intelligence. In terms of demographic variables, findings also depicted that age, gender, and education have a significant difference in resilience and emotional intelligence.*

**Keywords:** Intelligence, Resilience, Impaired, Adolescent, Pakistan

### Introduction

Hearing disabilities include individuals who are partially or completely deaf. People who are partially deaf can often use hearing aids to assist their hearing. Deafness can be evident at birth or occur later in life from several biological causes. Hearing impairment is a sensory deficit in the human population, affecting more than 250 million people in the world Global burden of hearing loss in the year 2000 (Mathers et al., 2000). In Pakistan, 63 million people (6.3%) suffer from significant hearing loss (Garg et al., 2018).

Deaf or hard of hearing (DHH) adolescents also face other stressors related to this phase like their hearing peers. Adolescents with DHH have restricted access to spoken language and face communication difficulties (Lederberg, Schick & Spencer, 2013). For deaf and hard-of-hearing adolescents, developing an identity is difficult due to the effect of hearing loss on communication, interpersonal relationships, and

education (Israelite, Ower & Goldstein, 2002).

Resilience is a broad term that indicates an outcome of the successful adaptation, in challenging circumstances, as defined by Masten (2000). Resilience is a relative resistance to psychosocial risk experiences. It is regarded as a process, not a trait that changes through time. It is created when protective factors, e.g., the immune system reduce the effects of the risk factors, which is referred to as healing.

If children with hearing loss are not adequately supported to develop competencies to cope with adversities and school demands, they can experience low academic achievement, which can also bring about less competence in creating jobs and getting employment opportunities (Olusanya et al., 2014). On the contrary, supporting deaf adolescents to develop resilience is indispensable in coping with language, academic, social, and behavioral struggles in general education, and social environments (Miccuci, 2015).

Children with hearing disability have a high risk for emotional distress and behavioral problems and tend to have lower academic achievement compared to typical childhood (Glickman, 2008). In addition, children with hearing problems tend to have low emotional intelligence because of the inability to express their emotions or the inability to speak to their parents and others (Terwogt & Rieffe, 2004). For hearing-impaired children, emotions and characteristics during the early stages of development are no different than normal children who can hear but as they grow older, will have a relatively limited emotional process (Greenberg & Kusche, 1993). Similarly, Hanif et al. (2012) analyzed emotional intelligence among deaf and hard-of-hearing children and found that 35% of children with hearing problems have a high level of emotional intelligence, 56% moderate and 9% low.

### Objectives

1. To explore the relationship between study variables (resilience, and emotional intelligence) among hearing-impaired adolescents.
2. To find out predicting the role of study variables (resilience, and emotional intelligence) among hearing-impaired adolescents.
3. To explore the demographic differences (i.e., age, gender, and class) in terms of resilience, and emotional intelligence

among hearing-impaired adolescents.

### Hypotheses

1. Resilience, and emotional intelligence, will be positively related among hearing-impaired adolescents.
2. Resilience will be positively predicting emotional intelligence, among hearing-impaired adolescents.
3. Differences will be out between demographic variables among hearing-impaired adolescents.

**Sample.** A sample of (n=504) of hearing-impaired adolescents was selected. A convenient sampling technique had been implied to recruit the research participants

**Procedure.** Respondents of the study were approached personally. The researcher herself collected the data. All the data were collected through questionnaires. A booklet of questionnaires consisted of Performa for demographic details and all four research instruments in Sign language. The process of collecting data took nearly four months before starting the process of analysis. Data was analyzed by using the IBM SPSS-22 version by applying a variety of statistical tests.

### Results.

Psychometric Properties of Study Variables are presented in the tables below.

**Table 1**

*Frequencies and Percentage of Sample of the Study (N=504).*

Characteristics	<i>f</i>	%
<b>Gender</b>		
Male	319	63.3
Female	185	36.7
<b>Age</b>		
9-14	173	34.33
15-20	331	65.67
<b>Education level</b>		
Primary	165	32.73
Middle	300	59.52
High	48	9.52
<b>Mother Qualification</b>		

Primary	28	5.55
Middle	24	4.76
Matric	89	17.65
Intermediate	53	10.51
B.A	55	10.91
M.A	60	11.90
Illiterate	195	38.69
<b>Father Qualification</b>		
Primary	22	4.36
Middle	18	3.57
Matric	135	26.78
Intermediate	68	13.49
B.A	90	17.85
M.A	5	0.99
Illiterate	131	25.99
<b>Degree of hearing loss</b>		
Mild	3	0.59
Moderate	24	4.76
Severe	220	43.65
Profound	257	50.99
<b>Family history</b>		
Yes	379	75.20
No	125	24.80

Note. *f*= frequency of the characteristic

**Table 2**

**Descriptive Statistics and Reliabilities of Sample for Study Variables (N=504)**

<i>Scales</i>	<i>Items</i>	<i>M</i>	<i>SD</i>	<i>α</i>	<i>Skew</i>	<i>Ku</i>
RS	25	85.07	20.77	.97	-.28	-1.18
EIQ	16	69.65	20.43	.96	-.22	-1.20

Note. RS Resilience scale. EIQ= Emotional intelligence Questionnaire.  $\alpha$ = reliability coefficient. SD standard Deviation. M=Mean. Ku= kurtosis.

The alpha coefficients range from .96 to .97. The negative values of kurtosis indicate flatness of the data distribution which shows more variables in data and vice versa.

**Table 3**

**Correlation coefficient among Resilience and Emotional Intelligence (N=504)**

S #	Variables	1	2
1	Emotional Intelligence	-	.87**
2	Resilience		-

Note. \*\* $p < 0.01$ , \* $p < .05$ .

The table shows the patterns of associations among the study variables. The result showed that the correlation coefficient value between the emotional intelligence and resilience scale is

0.87 which shows a moderate positive association between both the variables.

**Table 4**

***Linear Regression Analysis of Emotional Intelligence as Predictor of Resilience (N=504).***

Predictor	R	R <sup>2</sup>	$\Delta R^2$	B	SE	$\beta$	95% CI [LL-UL]
Emotional Intelligence	.41	.17	.17	-.75	.05	-.41	[-.65-.85]

Note: SE=Standard Error. LL=Lower Limit. UL=Upper Limit.  $\beta$ =Standardized Coefficients. \*\*\*p<.001

The table shows that the model reached significance, meaning that it successfully predicted resilience, by Emotional intelligence among hearing-impaired adolescents. The findings depict a significant negative correlation between emotional intelligence and resilience ( $\Delta R^2 = .00$ ,  $\beta = -.08$ ,  $t = -2.73$ ,  $F = 7.47$ ,  $p < .001$ ).

**Table 5**

***Gender Differences on All Study Variables among Hearing Impaired Adolescents (N=504)***

Variables	Male (319)		Female (185)		T	p	95%		Cohen's d
	M	SD	M	SD			UL	LL	
EI	56.97	9.38	52.11	11.01	4.38	.00	2.57	6.78	.47
R	40.33	10.71	42.45	11.10	2.52	.04	-1.19	-0.22	.32

Note. EI= Emotional intelligence, R= Resilience

The findings given in the table showed significant gender differences among hearing-impaired adolescents across behavioral health, emotional intelligence, resilience, and familial social support.

**Table 6**

***Age Differences on All Study Variables among Hearing Impaired Adolescents (N=504)***

Variables	Age (9-14)		Age (15-20)		t	P	95%		Cohen's d
	M	SD	M	SD			UL	LL	
EI	52.79	10.38	52.11	10.01	4.38	.00	2.17	6.78	.22
RS	45.67	11.71	43.45	12.10	2.52	.01	2.19	0.76	.32

Note. EI= Emotional intelligence, R= Resilience

Findings indicated that early adolescents age (9-14) illustrated higher scores as compared to late adolescents age (15-20). Results show significant differences in terms of emotional intelligence, and resilience.

**Table 7**

***Difference in Education Level of Hearing-Impaired Adolescents Across Major Construct of the Study (N=504)***

Variables	Primary (165)		Middle (300)		High (48)		F	P	p2
	M	SD	M	SD	M	SD			
EI	44.33	9.02	46.33	8.93	49.76	7.16	11.72	.00	.15
R	25.73	6.74	28.60	6.13	31.34	5.14	18.14	.00	.09

Table 29 shows significant group differences in terms of education level. Therefore, post hoc

analysis is also computed to determine mean differences across varying groups.

**Table 8**

***Post Hoc differences in Education Groups among Hearing Impaired Adolescents (N=504)***

Variables	Total sample (504)			95% CI	
	<i>i-j</i>	<i>D(i-j)</i>	<i>p</i>	<i>LL</i>	<i>UL</i>
EI	3>1, 2; 2>1	7.81	.00	1.37	4.00
R	3>1, 2; 2>1	6.20	.00	-1.59	-0.57

Note. 1= Primary, 2= Middle, 3= High

Post hoc analysis given in Table 30 indicated that hearing-impaired adolescents having the highest educational level (group 3) exhibited higher scores on Emotional intelligence, and resilience, than those with relatively lesser educational level.

## Discussion

Correlation coefficient, linear regression, bivariate, and multivariate analysis were used to analyze the data. Correlation coefficient analysis revealed a significant association between Emotional intelligence and resilience among hearing-impaired adolescents. These findings are in line with the existing empirical research on the relationship between resilience and emotional intelligence (Schneider, Lyons, & Khazon, 2013; Bigles et al., 2019; Stevenson et al., 2015). Linear regression analysis also positively predicts resilience and emotional intelligence among hearing-impaired adolescents. This particular finding of the present study showed steadiness with existing evidence (Muigg et al., 2020; Niclasen, 2016; Straaten et al., 2020; Yigider, 2020).

Bivariate results of the present study also

revealed that there is a significant age difference in terms of resilience. Significant differences have been found between age and resilience in previous literature (Pulido et al., 2020; Gooding et al., 2012; Macleod et al., 2016).

The results of the study also showed significant age differences in terms of emotional intelligence. Previous literature is also consistent that emotional intelligence and age have a slight difference (Fariselli, Ghine, & Freediman, 2008; Chen, Peny, & Kirk, 2015).

The findings regarding gender differences in terms of resilience showed significant differences. Our findings are in line with (Harrison's, 2000; Lsaacson, 2002; Edward, 2000) which showed that gender can be considered as an effective factor in resilience.

The results also showed that there a significant gender differences in terms of emotional intelligence. Evidence regarding these findings in literature also revealed that there are significant differences between men and women in emotional intelligence (Ahmad, Bangash, & Khan, 2009; King, 1999; Sing, 2002).

The results of the education were significantly different in terms of resilience and emotional intelligence. However, in the existing literature, no empirical evidence was found.

### Conclusion:

In short, it is found that resilience and emotional intelligence are important in hearing-impaired adolescents. Extensive attention should be paid to factors affecting resilience and emotional intelligence, including problem-solving skills, independence, and self-esteem.

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