

## RESEARCH ARTICLE

## IMPACT OF GENDER AND DEGREE OF HEARING LOSS ON SELF ESTEEM IN CHILDREN AND ADOLESCENTS

1. Associate Professor & HOD SLP, Faculty of Rehabilitation & Allied Health Sciences, Riphah International University Islamabad, Pakistan
2. Consultant Speech Language Pathologist, National Institute of Rehabilitation Medicine, Islamabad
3. Audiologist, GMT (Pvt) Ltd
4. Senior Lecturer, Faculty of Rehabilitation & Allied Health Sciences, Riphah International University Islamabad, Pakistan
5. Audiologist AV Hearing Center, Rawalpindi Pakistan
6. Teaching Assistant, Pakistan Institute of Rehabilitation Sciences, Isra University, Islamabad Pakistan

## Correspondence

Ramsha Haroon  
Teaching Assistant, Institute of Rehabilitation Sciences, ISRA University, Islamabad Pakistan  
E-mail: ramshaharoon80@gmail.com

Received on: 26-02-2022

Revision on: 20-03-2022

Published on: 31-03-2022

## Citation

Kiani HS, Salim H., Khan N, Shah KA., Rana KK, Ultamish, Haroon R. Impact of gender and degree of hearing loss on self-esteem in children and adolescents T Rehabil. J. 2021;06(01):309-312  
soi: 21-2017-re-triv06iss01p309  
doi: <https://doi.org/10.52567/trj.v6i01.139>

Humaira Shamim Kiani<sup>1</sup>: Conception, data collection, writing; Revised and accountable for all aspects

Nasir Khan<sup>2</sup>: Conception, Revised and accountable for all aspects

Kashif Ali Shah<sup>3</sup>: Analysis & interpretation of data, Revised and accountable for all aspects

Kamran Khan Rana<sup>4</sup>: Interpretation of data, Revised and accountable for all aspects

Ultamish<sup>5</sup>: Revised and accountable for all aspects

Ramsha Haroon<sup>6</sup>: Analysis & interpretation of data, Revised and accountable for all aspects

## ABSTRACT

**Background:** Hearing impairment is considered as one of the major contributor of drop in low self-esteem of adolescents. Children and adolescents with significant hearing loss have difficulties like communication and social skills in different aspects of their quality of life which later on lead to anxiety, depression and social isolation. **Objective:** To find out the impact of gender and degree of hearing loss in children and adolescents not using hearing aid. **Methodology:** A cross sectional survey was conducted in Khyber Pakhtunkhwa. Total participants were 551 selected between 9-15 years age, with mild and moderate degree of hearing loss with no history of using hearing aid. The Rosenberg self-esteem scale was used to measure the self-esteem level. The data was analysed through multiple linear regression testing SPSS version 21. **Results:** The mean age of the study participants was 12.38±1.773 year. The degree of hearing loss and the gender were statistically significant predictor ( $F(df) = 157.636(2,548)$ ,  $p < 0.001$ ,  $r^2 = .365$ ) of the self-esteem in hearing impaired children. Hence, the age was not significant predictor on the self-esteem ( $\beta = .367$ ,  $p = .228$ ) **Conclusion:** The self-esteem in the children and adolescents with hearing impairment was affected by gender and degree of hearing loss, whereas age have no impact on the self-esteem.

**Keywords:** Adolescent, children, Hearing impairment, hearing loss, self-esteem.

## INTRODUCTION

Self-esteem is an important factor of an individual's mental health. It actually represents a person's judgment regarding his/her own self. Low self-esteem leads to poor self-confidence and irrational negative thoughts which affects the overall personality of an individual. A term self-concept is also used as a synonym of self-esteem. <sup>1</sup> Hence, Individuals who are positive have high self-esteem because of their positive ideas they are more confident in what they do. People with low self-esteem mostly consider them self-less compete than others and develop inferiority complex. <sup>2, 3</sup> High levels of self-esteem are directly associated with the communication skills children who have hearing impairment and are using hearing aids are considered having high levels of self-esteem because their communication skills are developed whereas children and adolescents not using hearing aid have low self-esteem because of not developing proper communication skills to communicate. <sup>4</sup> Children and adolescents having Hearing impairment face a lot of challenges in their life due to compromised communication skills they face bullying and isolation at schools and at home as well, this actually develop negative thoughts in them which by time develop low self-esteem in them. It is considered that degree of hearing loss

also affects the mental health of hearing impaired children and adolescents; greater the level of hearing loss the more will be the chances of low self-esteem. <sup>5, 6</sup>

In a research it was noticed that gender differences in self-esteem changes with age. it was reported that boys are more positive thinkers and have high self-esteem as compared to girls of their age. <sup>7, 8</sup> The impact of gender difference on hearing impaired children is very obvious in different researches. <sup>9, 10</sup> on the other hand a research was conducted in which preadolescent Pre-adolescent girls and boys with cochlear implants showed no difference in levels of self-esteem they scored equally at self-esteem scale. <sup>10, 11</sup>

Conclusively, there was limited literature on this topic in Pakistan. As the gender based differences exist as compare to developed countries, which may affect the self-esteem of hearing impaired children, the degree of hearing loss may also contribute to low self-esteem due to lack of social interaction. The objective of the study is to find the impact of gender and degree of hearing loss in children and adolescent not using hearing aid.

## METHODOLOGY

A cross sectional study was conducted at different hearing clinics in Khyber Pakhtunkhwa in a time

period of 6 months from November 2020 – October 2021. The convenient sampling technique was used for data collection. The study was initiated after taking approval from Research and Ethics committee of Health Education Research Foundation. The sample size was n=551 children between 9-15 years, with mild and moderate degree of hearing loss but not using the any kind of hearing aid. However the children who had severe to profound degree of hearing loss and user of hearing aid as well as with normal hearing were excluded from the study. The Rosenberg self-esteem scale was used to measure the self-esteem level. The multiple linear regression test was applied to evaluate the impact of age, gender and degree of hearing loss on self-esteem in children and adolescents. Data analysis was made by SPSS 21 version.

## RESULTS

The mean age of the study participants was  $12.38 \pm 1.773$  year. The gender distributions on the basis of level of self-esteem shows that the n=67(12.16%) male and n=117(21.23%) female were with low self-esteem. The average self-esteem in males were n=185(33.58%) in female n=125(22.69%). The n=28(5.08%) were male with high level of self-esteem while the remaining n=29(5.26%) were female. The level of self-esteem shows that n=289 participants were with Moderate degree of hearing loss while the remaining n=262 were with Mild degree of hearing loss. For further detail see (Figure 1)

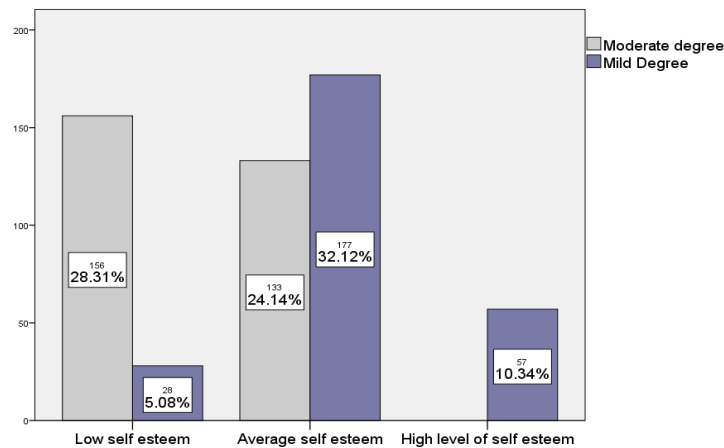


Figure: 1 Level of Self- Esteem

A multiple regression was run to predict Impact of age, gender and degree of hearing loss on self Esteem. The degree of hearing loss including Mild and Moderate degree and the gender are statistically significant predictor {F (df) =157.636(2,548),  $p < 0.001$ ,  $r^2 = .365$ } of the self-esteem in hearing impaired children. But the age was not significant predictor on the self-esteem ( $\beta = .367$ ,  $p = .228$ ) while in gender, the reference

variable was female ( $\beta = -2.110$ ,  $p < 0.001$ ), the male showed higher significant score of self-esteem ( $\beta = 2.110$ ,  $p < 0.001$ ) as compared to female. While considering the degree of hearing loss the mild degree ( $\beta = 8.923$ ,  $p < 0.001$ ) showed higher score which statistically significant as compared to moderate degree of hearing loss ( $\beta = -8.923$ ,  $p < 0.001$ ).

Table 1: Impact of gender and degree of hearing loss on self Esteem

	Mean	Std.	B	Sig.	R <sup>2</sup>	Adjusted R <sup>2</sup>	F(df)	Sig.
<b>Age</b>	12.38	1.773	.367	.228				
<b>Gender</b>								
Male	18.54	7.783	2.110	.000***				
Female	16.26 <sup>a</sup>	7.337			.367	.363	157.636(2,548)	.000***
<b>Degree of HL</b>								
Mild degree	22.13	3.885	8.923	.000***				
Moderate degree	13.14 <sup>a</sup>	7.708						

\*\*\*Significance level  $p < 0.001$

<sup>a</sup>reference variable

## DISCUSSION

The main objective of study was to find out level of self-esteem on age, gender and degree of hearing loss. It was hypothesized that there is significant effect of gender and degree of hearing loss on self-esteem. The age of HI children did not have any significant impact but gender and degree of hearing loss have significant impact on self-esteem. Previous studies showed associations between age and self-esteem persistence in children with hearing loss.<sup>12, 13</sup> Warner-Czyz et al. report more positive self-esteem for younger versus older children using CI. The Mean self-esteem score decreased by nearly 20% from preschool to older childhood and adolescence.<sup>13</sup> It was found that age-related reductions in self-esteem in children with hearing loss in mainstream educational settings, implying characteristic changes in childhood self-esteem endure across auditory status.<sup>12</sup> The possible reason because the children and adolescents are same they are young and have a negative impact about their health. They assume that they are different from the normal persons. They feel uncomfortable and always social withdraw; this is the main cause of their low self-esteem but the current study showed that there is increase in self-esteem as the age increases. Because as the age increases they become use to or adopt the problems which they faced for a long time. They develop their communication skills to participate in a group conversation and avoid communication breakdowns and cope up with it.<sup>14, 15, 16</sup> The non-significant result of the study may be due to homogeneity in age of the study participants.

The current study showed gender based comparison that the female have low self –esteem as compared to the male. Female assume hearing loss always as a hurdle to them. They have negative feeling about their hearing loss and assume that they are inferior to others, therefore not communicate to other in fear of going wrong. The second main is the cultural values, boys are the more dominant and they have freedom to every excess as compare to female.<sup>8</sup>

The girls give more importance to their social activities, life and want to be accepted by people and concern about being disliked. The girls experience negative self-esteem, if there social

activities and physical appearance is compromised.<sup>17</sup> On the other hand boys have more positive self-esteem as compare to girls and do not give importance to the activities except their social life.<sup>7, 8, 11, 18</sup>

A study reported that the esteem, until the age of 12 remain the same in both gender. But during puberty, there is mark decline, around two fold, in self-esteem in girls due to bio psychosocial changes.<sup>11</sup> The further reduction in girls' esteem levels, which might stem from higher importance of physical appearance for girls versus boys in preadolescence, continue through age 16 and decrease thereafter. It was reported in a study that pre-adolescent girls and boys using hearing aids as compare to their normal peers, rate their self-esteem equally.<sup>7</sup> Another study suggested that there are contradicting trends in hearing peers, as girl using cochlear implant (CI) shows more positive self-esteem as compare to boys. They usually fell more confident after using the CI.<sup>10</sup>

The current study showed the self-esteem level on the basis of degree of hearing loss. The individuals with moderate degree hearing loss have low self-esteem than the mild degree HL. The degree of hearing loss mentally affect the children, leads to social isolation due to feeling of uselessness. The hearing loss cause low self-esteem level in individuals as the degree of hearing loss increases the level of self-esteem decreases.<sup>16</sup> The hearing loss causes depression, anxiety and high temperament which negatively affect the person's personality and behaviour. The self-esteem correlates with both temperament and behaviour in hearing loss children.<sup>19, 20</sup> The literature shows that the use of hearing aids improve self-esteem because the hurdles and problems they faced by the hearing loss are overcome and they feel more confident and shows improvement in the social relations.

There are some other factors which are not included in the study and may affect the self-esteem of hearing impaired children i.e. socioeconomic status, education level of parent family support etc.

## CONCLUSION

The self-esteem in the children with hearing impairment was affected by gender and degree of

hearing loss. Although the age did not impact the self-esteem in current population, but as per available literature, it may affect the self-esteem if appropriate sample is used in future studies.

## REFERENCES

- Awori BB, Mugo JK, Orodho JA, Karugu G. The relationship between self-esteem and academic achievement of girls with hearing impairments in secondary schools for the deaf in kenya. *Journal of the American Academy of Special Education Professionals*. 2010;38:51.
- Jackson LM. Development of prejudice in children (2<sup>nd</sup> edition). American Psychological Association. 2020:9-25. <https://doi.org/10.1037/0000168-000>
- Vignoles VL, Regalia C, Manzi C, Gollidge J, Scabini E. Beyond self-esteem: Influence of multiple motives on identity construction. *J Pers Soc Psychol*. 2006;90(2):308-33. doi:10.1037/0022-3514.90.2.308.
- Ahmadi H, Daramadi PS, Asadi-Samani M, Givtaji H, Sani MRM. Effectiveness of group training of assertiveness on social anxiety among deaf and hard of hearing adolescents. *Int Tinnitus J*. 2017;21(1):14-20. doi:10.5935/0946-5448.20170004.
- Kvam MH, Loeb M, Tambs K. Mental health in deaf adults: Symptoms of anxiety and depression among hearing and deaf individuals. *J Deaf Stud Deaf Educ*. 2007;12(1):1-7. doi:10.1093/deafed/enl015.
- Syed IH, Awan WA, Syeda UB. Caregiver burden among parents of hearing impaired and intellectually disabled children in pakistan. *Iran J Public Health*. 2020;49(2):249-56.
- Puskar KR, Bernardo LM, Ren D, Haley TM, Tark KH, Switala J, et al. Self-esteem and optimism in rural youth: Gender differences. *Contemp Nurse*. 2010;34(2):190-8. doi:10.5172/conu.2010.34.2.190.
- Sung KM, Puskar KR, Sereika S. Psychosocial factors and coping strategies of adolescents in a rural pennsylvania high school. *Public Health Nurs*. 2006;23(6):523-30. doi:10.1111/j.1525-1446.2006.00589.x.
- Percy-Smith L, Cayé-Thomasen P, Gudman M, Jensen JH, Thomsen J. Self-esteem and social well-being of children with cochlear implant compared to normal-hearing children. *Int J Pediatr Otorhinolaryngol*. 2008;72(7):1113-20. doi:10.1016/j.ijporl.2008.03.028.
- Huber M. Health-related quality of life of austrian children and adolescents with cochlear implants. *Int J Pediatr Otorhinolaryngol*. 2005;69(8):1089-101. doi:10.1016/j.ijporl.2005.02.018.
- Robins RW, Trzesniewski KH, Tracy JL, Gosling SD, Potter J. Global self-esteem across the life span. *Psychol Aging*. 2002;17(3):423-34.
- Bleidorn W, Arslan RC, Denissen JJ, Rentfrow PJ, Gebauer JE, Potter J, et al. Age and gender differences in self-esteem-a cross-cultural window. *J Pers Soc Psychol*. 2016;111(3):396-410. doi:10.1037/pspp0000078.
- Warner-Czyz AD, Loy BA, Evans C, Wetsel A, Tobey EA. Self-esteem in children and adolescents with hearing loss. *Trends Hear*. 2015;19. doi:10.1177/2331216515572615.
- Loy B, Warner-Czyz AD, Tong L, Tobey EA, Roland PS. The children speak: An examination of the quality of life of pediatric cochlear implant users. *Otolaryngol Head Neck Surg*. 2010;142(2):247-53. doi:10.1016/j.otohns.2009.10.045.
- Warner-Czyz AD, Loy B, Roland PS, Tong L, Tobey EA. Parent versus child assessment of quality of life in children using cochlear implants. *Int J Pediatr Otorhinolaryngol*. 2009;73(10):1423-9. doi:10.1016/j.ijporl.2009.07.009.
- Keilmann A, Limberger A, Mann WJ. Psychological and physical well-being in hearing-impaired children. *Int J Pediatr Otorhinolaryngol*. 2007;71(11):1747-52. doi:10.1016/j.ijporl.2007.07.013.
- Bhamani S, Jamil S, Mohsin FZ. Gender differences in self-esteem in young adolescents of karachi. *Pakistan Business Review*. 2014;15(4):704.
- Orth U, Maes J, Schmitt M. Self-esteem development across the life span: A longitudinal study with a large sample from germany. *Dev Psychol*. 2015;51(2):248-59. doi:10.1037/a0038481.
- Chan SM. Depressive mood in chinese early adolescents: Relations with shyness, self-esteem and perceived social support. *Asia-Pacific Psychiatry*. 2012;4(4):233-40.
- Chan SM, Wong AK. Shyness in late childhood: Relations with attributional styles and self-esteem. *Child Care Health Dev*. 2013;39(2):213-9. doi:10.1111/j.1365-2214.2011.01351.x.

**Disclaimer:** None to declare.

**Conflict of Interest:** None to declare.

**Funding Sources:** None to declare.