

A Comparative Study on Levels of Aggression in boys and Girls with Hearing Impairment

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Abstract

The research was designed to compare the level of aggression in hearing-impaired boys and girls. The descriptive method of research was opted to conduct the study. The population comprised of hearing-impaired students of ages 13-19 years studying in classes 6-10 at Special Education Institution for Hearing Impaired Children in Rawalpindi. The sample size was 198 hearing impaired students (98 male and 100 female) drawn by simple random sampling technique. Aggression Questionnaire developed by Buss and Perry (1992) was used as a research tool. Pilot testing of the tool was conducted on 20 hearing impaired students (10 male and 10 female) of ages 13-19 years. The results of pilot testing showed high reliability of the tool i.e. 0.90 for this study. The finding of this study revealed that verbal aggression among all students was very high as compared to all other types/subscales of Aggression Questionnaire; physical aggression, anger and hostility. The levels of physical aggression and hostility were found comparatively at the same level while the levels of anger were at the least in comparison to different subscales. It was concluded that hearing-impaired boys have high levels of aggression as compared to hearing-impaired girls thus early identification of aggression was recommended.

Keywords: Aggression, gender differences, hearing impaired boys and girls, physical aggression, verbal aggression, anger, hostility.

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Introduction

Hearing impairment stands for complete or partial loss of hearing in one or both ears. Children with hearing impairment and adolescents lack vocabulary and communicate with difficulty. Due to which such children cannot express their feelings and become socially isolated and aggressive. Baron and Byrne (1991) say that aggression as behavior is very harmful and dangerous for living beings. So, it must be released through activities directly or indirectly. According to Anderson & Bushman (2002), factors that usually cause aggression are individual, situational, biological and psychological factors.

“Well-established theories of development suggest that language and communication are major causes in the development of behavioral control” (Huesmann & Guerra, 1997 as cited in Bashir, Riaz, Shujaat, & Saqib, 2014, p. 48). From a point of view, aggression prompts disgusting behaviors when individuals face a barrier in reaching their targeted goal achievement. So "aggression is an innate driving force which may cause from the person's assessment as feeling to preclude himself/herself or being precluded by outside factors. Hence hearing disability is a form of prevention and could, therefore, act more strongly in individual aggression tendencies" (Babaroglu, 2016, p.15).

Children with hearing impairment are often found emotionally maladjusted because of communication difficulty in conveying their feelings or talk to others. Children with hearing impairment are often seen quarreling with each other shouting and or showing anger upon their classmates. They even become aggressive towards teachers also when fail to reply to what a teacher asks them. Most of the time it happens due to misunderstanding and therefore the failure of communication results in aggression.

The studies related to determining aggression in hearing-impaired children reported such children show more aggressive behaviors compared to hearing individuals and therefore become isolated “since they exhibit more depressive behaviors” (Motemedi, et al., 2007; Rostami, Bahmani, & Bakhtyari, 2014 as cited in Babaroglu, 2016, p. 15). Whereas, some of other studies found aggression levels of children with hearing-impairment near to their counterparts (Remine & Brown, 2010 as cited in Babaroglu, 2016, p. 15).

“Many schools have taken on the philosophy that, when schools attend systematically to student's social and emotional skills, the academic achievement of hearing-impaired increases, the incidence of

the problems decrease, and the quality of relationships surrounding each student improves” (Andersson, Olsson, Rydell, & Christian, 2000 as cited in Bashir, Riaz, Shujaat, & Saqib, 2014, p. 47).

Buss & Perry (1992) classify aggression into four types; i) physical, ii) verbal, iii) anger, and iv) hostility. Fabes & Eisenberg’s study (1992) show gender differences on aggression. The results of their study reveal that boys react by showing more aggression while girls use coping strategies. Similarly, Crick & Grotpeter (1995) say that boys are more aggressive than girls. Aggression affects a person’s life in the form of lack of trust and feelings of insecurity. With the passage of time aggressors developed into an aggressive personality which lower person’s intellectual achievements.

Mohanraj & Selvaraj (2013) cited Singh and Broota’s study (1992) on the socio-personal variables and examination anxiety of normal school students, in which girls were found more test anxious and worried compared to boys. Whereas research on hearing impaired students revealed the boys being more anxious, annoyed, aggressive and defensive in nature and most of the male hearing impaired students were found having high level of aggression. They were of the view that “the tendency of the aggression among the male students might be due to the effect of a male dominant society” (Mohanraj & Selvaraj, 2013, p. 25).

Babaroglu, (2016) while studying the gender differences on types/subscales of aggression found no difference between physical aggression behavior of girls and boys with hearing impairment, while in the group of normal hearing children, boys showed more physical aggression behaviors compared to girls. “Although disabilities don’t affect physical aggression behaviors of boys, while girls with hearing impairment are determined to have more physical aggression behaviors compared to other girls with normal hearing. On aggression and anger sub scales, no difference was found between behaviors of children depending on their gender and disabilities” (p.18).

Mohanraj & Selvaraj (2013) further found significant effect of sex on the aggression level among hearing impaired students. According to them “majority of the male students were found to be highly aggressive whereas, none of the female students were highly aggressive. Most of the female students had medium level of aggression when compared to male students. Almost equal number of male and female students had low level of aggression. Hence Aggression level differed significantly with sex of the hearing impaired students” (p.23). It is obvious that anxiety, frustration, aggression, age and gender significantly influence social adjustment of the hearing impaired adolescents. Therefore, the present

study was designed to explore aggression levels of students with hearing impaired and compare the levels of aggression in hearing impaired boys and girls.

Objectives

Following were the objectives of the study;

- i. To identify the levels of aggression of hearing-impaired boys and girls.
- ii. To describe the types of aggressive behaviors in children with hearing impairment; boys and girls.
- iii. To compare the levels of physical aggression, verbal aggression, anger and hostility in boys and girls with hearing impairment.

Null Hypothesis

There is no significant difference between the levels of aggression of boys and girls with hearing impairment.

Research hypothesis

Hearing-impaired boys have high levels of aggression as compared to that of hearing-impaired girls.

Literature Review

Aggression is a physical constituent of a human being. It refers to behavior between members of the same species that is intended to cause pain or harm. Some behaviors are positive and give benefits to society but negative behavior also exists in them such as aggression. In humans, aggression is a social determinant. It can be a form of punishment or a form of role taking, or a form of communication, or expend expressive reaction (Brain, & Benton, 1981).

The term aggression is fully described in the literature. "Aggression is any behavior, which produces harm and injury to another" or more specifically "a response that delivers noxious stimuli to another organism" (Buss, 1961 as cited in Geen, 1990, p.26). Geen (1990) describe that aggression is an attack, which normally comes without any apparent cause. It often comes as a result of strong emotional states. According to Baron, & Byrne (1987) aggression is not a preplanned

program but an automatic response. Bailey (1977, p.12) says “aggression is the instrument for attaining a goal or a reward”. Aggression is associated with the goal achievement and ability to overcome obstacles. Human behavior which causes no damage or injury is called the constructive forms of aggression. But on the other hand, if aggression results in injury or destruction to another person, then it is called destructive aggression (Brain, & Benton, 1981).

Aggression is not an isolated act and it arises in the context of an ongoing relationship (Geen, 1990). Human aggressive actions are forms of interaction resulting from social experience. Aggressive action can be physical, verbal or symbolic (Brain, & Benton, 1981). Pervin & John (2001) concluded that children showed two types (based on form) of aggression; e.g hit, pushed, physical harmed, kicking, and biting (Vaste, Haith & Miler, 1999). Aggression can build up uncontrollably and then blow up spontaneously (Bailey, 1997 & Geen, 1990).

There are three main theories of aggression; i.e., instinct theory, drive theory and social learning theory. Instinct theory is derived from psychoanalysis and etiology. The psychoanalytical theory described two sets of opposing instincts (eros & thanatos) which have a great impact on human behavior. Eros consists of all those forces which focus on advancing life whereas thanatos consists of those forces that try for the destruction of life. The aggressive behavior developed when thanatos (the death instinct) is discharged outward (Freud, 1933 as cited in Goldstein, & wehr, 1981). The ethological theory of aggression is based on the assumption that man has an aggressive or “killer” instinct.

According to the drive theory aggression stems mainly drawn out from an external drive to harm or injure others (Berkowitz, 1978; Baron & Bryne, 1987). Many psychologists do accept the drive concept, that when goal-directed behavior is not achieved then the aggressive drive is produced by frustration (Moyer, 1987).

Social learning theorist like Bandura (1986) explains that human being learns about aggression through a mixture of observation, imitations, modeling, reinforcement & punishment (Bandura, 1973 as cited in Reddy, Shymala, Reddy, & Sonthakumari, 1986). Our behavior is constantly changing with regard to our changing circumstances. If others behave aggressively toward us, then we may learn that aggressive behavior and response accordingly. Eisenberg says that the presence of an approving adult enhanced the expression of aggression; the presence of a disapproving adult did not enhance it (Eisenberg, 1980 as cited in Geen, 1990). It appears that instinct theory believes that aggression is innate, always exist in human being but theorists who are in favor of

drive theory say that aggressive behavior arises due to some drive such as frustration. Social learning theory describes that people always learn aggressive behavior, it is not inborn.

All type of aggressive behavior has negative effects on people and also on society whether it is hostile, instrumental or relation. Buss, & Perry (1992) classify aggression into four types; i) physical, ii) verbal, iii) anger, and iv) hostility. Physical aggression is a form of aggressive behavior, e.g., hitting, pushing, physical harming, kicking, biting, and etc. verbal aggression is an act of teasing, provoking, or threatening. Anger is a strong feeling of displeasure. Hostility is a feeling of enmity or an act of expressing enmity or opposition (Buss, & Perry, 1992).

In his study on comparing types of aggression behavior of children with hearing-impairment with normal hearing children, Babaroglu (2016, p.18) reported “no difference in terms of both verbal aggression and anger subscales, while on physical aggression subscales, children with hearing impairment were found more aggressive as compared to normal hearing children regardless of age. In the hostility subscale, there was no difference between two groups, but normal hearing children comparatively showed more hostile behaviors until 14 years of age” (p.18). Babaroglu, (2016) also compared the aggression of children with hearing impairment having pre-school education or not having pre-school education. He determined that hearing impaired pre-schoolers are more aggressive compared to hearing impaired non pre-schoolers. Both groups were similar in physical aggression subscale, whereas on verbal aggressive behaviors of hearing impaired pre schoolers were found to be higher than those of hearing impaired non pre schoolers (p.19). Similarly children with hearing impairment, who have one or more siblings with hearing impairment, show more aggressive behaviors compared to those who have no siblings with hearing impairment (p.19).

Vaste, Haith & Miler, (1999) explain that boys show toward one another more aggressive than girls whereas girls display another type the relational aggression more than that of boys. Physical and instrumental aggression gradually leads to verbal and hostile aggression in preschool year. Men scored slightly higher on verbal and hostility and much higher on physical aggression. There were not sex differences on anger sub scale (Buss and Perry, 1992, p.457). Sometimes aggression displayed by the age of 5, child directed hostile aggression at a person other than the one against whom hostile or retaliation is desired (Vaste, Haith & Miler, 1999). It appears that any behavior which produces harm or injure to another is called aggression whether it harms other physically, mentally or socially. Sometimes children behave aggressively to achieve their goal.

Assessment is way of indentifying the child with the aggressive behavior problems. Researchers may use the direct observation method in order to measure the aggression levels in early ages (from 18 months to 5 years), and in later ages aggression is measured by use of teacher ratings or the peer nomination methods (Vaste, Haith & Miler, 1999). According to Bloomquist & Schnell (2002) aggression can be assessed by using different methods such as interview, behavior rating scales, direct observation, etc. In this research aggression questionnaire of Buss and Perry (1992) was used.

Bashir, Riaz, Shujaat, & Saqib, (2014) reported significant differences in terms of gender, and hearing levels of adolescents with hearing impairment. They said “mild hearing impaired adolescents scored significantly higher on social competence as compared to severe hearing impaired adolescents who scored significantly higher on anti-social behavior. Mild hearing impaired adolescents scored significantly higher on school social behavior. Boys with hearing impairment scored significantly higher on antisocial social behavior as compared to girls with hearing impairment” (p.37). These findings emphasize the role of level of hearing impairment, gender, age, on types of school social behavior of hearing-impaired adolescents.

Methodology

The study was descriptive in nature and data on aggression levels of children with hearing impairment were measured on aggression questionnaire

The population of the study comprised 230 profound hearing impaired students of ages 13-19 years studying in classes 6-10, at Sir Syed Academy for Hearing Impaired Children in Rawalpindi. The sample size (198) including 98 male and 100 female students selected from the population by applying a simple random sampling technique. All of the participants of the study were having a profound and severe level of hearing loss and their parents and siblings were having normal hearing.

Levels of aggression of children with hearing impairment were measured by The Aggression Questionnaire; a scale developed by Buss and Perry (1992).The Aggression Questionnaire comprised four subscales and 29 test items; physical aggression (09 items), verbal aggression (05 items), anger (07 items) and hostility (08 items). The Aggression Questionnaire measures levels of aggression on five point Likert Scale ranging from "Strongly agree to Strongly disagree" with numerical weightage as 1 (least),

2 (mild), 3 (Average), 4 (moderate), and 5 (greater). The reliability as obtained by Buss and Perry (1992) in their studies is: physical aggressiveness 0.85, verbal aggressiveness 0.72, anger 0.83, hostility 0.77 and total score is 0.89 (Buss & Perry, 1992, p.455; Harris, 1995). The scoring of two test items; 7th in physical aggression sub scale and 4th in anger sub scale is reversed Buss and Perry, (1992, p.454).

A pilot test was conducted before the administration of the Aggression Questionnaire on a group of 20 students including 10 males and 10 females for validation. The reliability of the aggression questionnaire was .90. The reliability and validity of the tool were further studied by applying the principal method of factorization; it appeared that all items have range 12 points of heavy factor loading (0.760 to 0.978) that was more than the required minimum loading, i.e., 0.300.

Data Analysis

Data was analyzed through computing means, SD, variance, % ages, etc. t-test was applied to ensure the significance level for testing the hypothesis. The analysis was interpreted to draw findings and results.

Results

198 hearing impaired students 13-19 years of age including 98 male and 100 female from Sir Syed Academy in Rawalpindi were the respondents of the study. The level of Aggression of hearing-impaired students was measured by the Aggression Questionnaire developed by Buss and Perry (1992) divided into four Sub Scales; 1) Physical Aggression 2) Verbal Aggression 3) Anger and 4) Hostility. Total aggression is the sum of scores obtained from 5 subscales. Analysis of the responses of the participants is presented below.

Table 1
Mean, SD and Variance of the Participants (N=198)

participants	Mean	SD	Variance
Overall (198)	86	17.56	308.46
Male (98)	102	8.31	69.15
Female (100)	70	30.6	13.15

Table 1 shows the values of mean, SD, and variance of the overall participants and males and females separately as well.

Table 2
Gender wise Frequency and Percentage of the Participation (N=198)

Gender	Frequency	Percentage
Male	98	49.5%
Female	100	50.5%
Total	198	100%

The table 2 shows that from 198 participants, 98 (49.5%) were male and 100 (50.5%) were female.

Table 3
Descriptive Statistics of Aggression Questionnaire and its Sub Scales (N=198)

S/No.	Sub-items	Mean	Std-Deviation	Variance
1	Overall	89	25.20	634.93
2	Physical Aggression	26	7.27	52.86
3	Verbal Aggression	37	10.40	108.03
4	Anger	21	5.65	31.97
5	Hostility	26	8.67	75.13

Table 3 shows the overall values of Means, SD and Variance of Aggression Questionnaire 89, 25.20 and 634.93. The values of Mean, SD and Variance of subscales; Physical Aggression and Verbal Aggression are 26, 37 and 7.27, 10.40 and 52.86, 108.03 respectively. The values of Mean, SD and Variance on anger are 21, 5.65 and 31.97, respectively. On the Hostility subscale, the values of Mean, SD and Variance are 26, 8.67 and 75.13. It was found that the mean value of verbal aggression was greatest (37) and the value of anger subscale was the least (21) while means of physical Aggression and hostility were similar.

Table 4
Gender wise Descriptive Statistics of Aggression Questionnaire (N=198)

Sr. No	Sub-Scale	Gender (N=198)					
		Male (n=98)			Female (n=100)		
		Mean	SD	Variance	Mean	SD	Variance
1.	Overall	110	11.96	143.08	68	15.87	251.99
2.	Physical Aggression	32	4.11	16.92	20	4.60	21.19
3.	Verbal Aggression	45	6.12	37.47	28	5.77	33.28
4.	Anger	25	3.47	12.04	16	3.29	10.80
5.	Hostility	33	4.22	17.85	20	6.90	46.19

Table 4 shows that overall values of Mean, SD and variance of male and female are 110, 11.96, 143.08 and 68, 15.87, 251.99 respectively. The values of Mean, SD and variance of male and female on subscales, Physical aggression 32, 4.11, 16.92 the value and 20, 4.60, 21.19, respectively whereas on Verbal aggression the values of Mean, SD and variance of male and female are 45, 6.12, 37.47 and 28, 5.77, 33.28 respectively. On anger subscale, the value of Mean, SD and variance of male and female are 25, 3.47, 12.04 and 16, 3.29, 10.80 respectively. The value of Mean, SD and variance of male and female subscale Hostility are 33, 4.22 and 17.85 whereas the values of females on Hostility are 20, 6.90 and 46.19 respectively.

It was found that the mean values of the overall Aggression Questionnaire of the male are greater (110) than that of female values of the mean (68). Physical Aggression subscale the values of the mean are also greater of male (32) than that female value (20). The Mean values of males on verbal Aggression, Anger and Hostility are also greater (45, 25, 33) than that of females (28, 16, 20). It was also found that the Mean values of verbal aggression was greater in both male and female values (45, 28) respectively while Means values of male and female of Physical aggression and Hostility were again similar as in table 3.

To find out the gender differences on the Aggression Questionnaire the value of Mean, SD, Std. Error Mean, t & P were calculated to test the null hypothesis.

Table 5
Gender Differences on Aggression Questionnaire

S/No	Sub-Scale	Groups	Mean	SD	St. Error Mean	t	p
1	Overall	Male (98)	110	11.96	1.208	20.87***	.000
		Female (100)	68	15.87	1.587		
2	Physical Aggression	Male(98)	32	4.11	0.415	18.71***	.000
		Female(100)	20	4.60	0.460		
3	Verbal Aggression	Male(98)	45.46	6.12	0.6183	20.15***	.000
		Female(100)	28	5.77	0.5768		
4	Anger	Male(98)	25	3.47	0.350	18.86***	.000
		Female(100)	15	3.28	0.328		
5	Hostility	Male(98)	33	4.22	0.426	16.25***	.000
		Female(100)	20	6.80	0.679		

***Significant at .001

Table 5 shows the calculated value of $t=20.87$ and $p < .000$. As $p <$

.001 the gender differences on overall aggression questionnaire scores and scores on all of its sub-scales are significant. Therefore, the null hypothesis on this finding is rejected. It can be concluded that the hearing impaired boys have overall higher aggression than that of hearing-impaired girls.

Testing of Null Hypothesis

The mean value of males ($\mu_1=100$) is not equal to the mean value of females ($\mu_2=68$) therefore, the null hypothesis was rejected i.e., there is no significant difference between the levels of aggression of boys and girls with hearing impairment.

$$H_0 \quad \mu_1 = \mu_2$$

$$H \quad \mu_1 \neq \mu_2$$

Therefore, the alternative hypothesis was accepted. As the calculated value of $p < .001$, it shows that there is a significant difference between the levels of aggression of boys and girls with hearing impairment.

Discussion

The study was conducted in order to compare the levels of aggression in boys and girls with hearing impairment. The null hypothesis of the research was statistically tested and rejected. The results of the present study supported the alternative hypothesis that there was significance difference in aggression levels of both hearing impaired boys and hearing impaired girls. The results of present study indicated that hearing impaired boys have high level of aggression as compared to hearing impaired girls. Similar results were found when Crick & Grotpeter (1995) studied the level of aggression in normal hearing children and Babaroglu, (2016) evaluated gender differences on aggression in both groups of children with or without hearing impairment and found boys showing more aggressive behavior compared to girls. Babaroglu, (2016) defended this finding by saying that “girls define aggression as negative behaviors resulting from the loss of control while boys consider aggression as a positive instrument to be used to strengthen their self-esteem and their behaviors are rewarded by their community” (p.21). Mohanraj & Selvaraj (2013) also found the “aggression level differed significantly with sex of the hearing impaired students” (p.23).

Findings of this study related to the types/sub scales of aggression reveals that hearing impaired boys scored high on anger subscale as compared to hearing impaired girls. Whereas the result of Edalati's study (2010) concluded the rate of females' physical aggression is either equal to or higher than males. Hence the result of present study contradicts the findings of previous study by Edalati (2010). Buss and Perry, (1992, p.457) also reported that "men scored slightly higher on verbal and hostility and much higher on physical aggression. There was not sex differences on anger sub scale".

Research had shown that boys exhibit more physical aggression and violence than girls at every age (Nelson, Martella, & Marchand-Martella, 2002 as cited by Bashir, Riaz, Shujaat, & Saqib, (2014, p. 48). According to the results of study of Babaroglu, (2016) who determined aggressive behavior of children with hearing-impairment and normal hearing children with respect to age, "hearing children show less aggressive behaviors as they get older; however, in children with hearing impairment, no difference was observed in their aggressive behaviors depending on their ages". Babaroglu, (2016) explain the reason of increased aggressive behaviors of children with hearing impairment as they get older because children begin to understand their disabilities and limitations caused by hearing impairment with the passage of time.

In contradiction to this finding other studies suggesting that girls are more aggressive than boys (Doğan, 2001 as cited in Babaroglu, (2016). In contrast to the findings of the present research some other studies as cited in Babaroglu, (2016) indicated no significant difference between opposite gender groups in terms of aggressive behaviors and cited Björkqvist et al., 1992; Anderson, Olsson, Rydell, & Larson et al., 2000; Sipal, 2010.

The results regarding the types of aggression among boys and girls showed boys scored high on all types; physical aggression, verbal aggression, anger and hostility, as compared to those of girls. The result is in line with findings of Babaroglu (2016) on verbal aggression subscale but contradict his results on physical aggression subscale where Babaroglu, (2016) found no difference between girls and boys with hearing impairment. Babaroglu, (2016) pointed out many studies indicating that boys show more physical aggression behaviors compared to girls. The reason behind as he reported was that "Because boys think that they can achieve their goals with brute force" (p. 21). Different results were also found on anger subscale where Babaroglu, (2016) found no difference was depending on gender and disability status of children.

The findings of this study depicted that physical aggression was high in hearing-impaired boys as compared to hearing-impaired girls. The findings of Toldos, (2005) who found out that compared to girls, boys reported a more frequent use of physical and verbal aggression. The reason he reported, may be that the hearing loss make it difficult to truly understand others and hearing impaired boys become hyper and led to physical aggression.

Conclusions

The study concluded that:

1. The hearing-impaired boys have high aggression levels as compared to the hearing impaired girls.
2. The levels of physical aggression, verbal aggression, anger and hostility of hearing-impaired boys and girls are significantly different.
3. The hearing-impaired boys and girls have high levels of verbal aggression as compared to physical aggression, anger and hostility. Hence aggression levels found in hearing-impaired students are not due to anger; it is due to verbal aggression.

Recommendations

The result of the present study provides the following recommendations:

1. Hearing-impaired children face a lack of understanding therefore immediately become angry. The anger leads them towards aggressive behavior in classrooms, which disturb the learning environment. The aggression in the hearing impaired children if identified earlier could be managed. This study recommends the identification of levels of aggression in hearing-impaired boys and girls studying in special education centers.
2. The findings of the present research are only related to the hearing impaired boys and girls of ages 13-19 years but as children go through the developmental phases in early school years, therefore, the identification of aggression in children of classes 1-5 may be more helpful for the teachers in managing and modifying behaviors.

Further Researches

Identification of aggression levels directs the educationist to study in detailed, i. e., to study the impact of aggression on academic achievement.

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