



A cross-sectional study on behaviour and social aspects of deaf and dumb children in Ahmedabad

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Abstract:

Introduction: Deaf people were considered mentally and educationally deficient due to their inability to hear and speak. The social development depends on communication. That's why deaf and dumb children frequently face some behaviour and social problems in their life.

Methodology: It was an institution based cross-sectional study covering 687 children from 3 deaf and dumb institutes in Ahmedabad. Pre-design proforma was used to collect information on their demographic profile, causes of deafness, social perceptions and behaviour problems. Data was analysed in Epi-info 7.

Results: Out of Total 687 deaf and dumb children there were 415 (60.41%) boys and 272 (39.59%) girls. Most of the children 412 (59.97%) suffers from deafness due to genetic causes. 153 (22.27%) children were depressed while 306 (44.54%) children had aggressive nature. 68 (9.89%) children had geographical restriction imposed by their parents.

Conclusion: Most of deaf and dumb children have aggressive nature. They need more social support and warmth at home and at institute by parents, faculties as well as from community.

Key words: Deaf and dumb children, causes of deafness, Behaviour problems, Social perceptions.

I. Introduction

Deafness is one of the disabilities seen in all age group. Deafness in younger age group is an emerging health problem in our country. There are 32 million (9%) children in the world with disabling hearing loss.^[1] Prevalence of deaf and mute children in India is 10.8 and 6.8 in rural and urban areas respectively.^[2] Many researches were done on deaf-dumb children about their physical health, causes of deafness, cochlear implantation, degree of hearing loss, etc. But about their social life, behavioural changes, communication problems, very few researches were conducted. These are the untouched problems faced by deaf-dumb children. Permanent childhood hearing impairment can have a devastating impact on communication skills, educational attainment and quality of life, with a high cost to society. Education of parents has also significant effect on development of the deaf children. Social problems were seen in the children with low education level of parents. Deaf children are more vulnerable to mental health problems than hearing children. The prevalence of mental health problems in community samples of deaf children is approximately 40%.^[3] So, present study is conducted to collect baseline information related to their social and behaviour problems.

II. Objectives

- To know the demographic background of the deaf and dumb children.
- To know the etiology of deafness in deaf and dumb children.
- To assess various behaviour and social problems in deaf-dumb children.

III. Methodology

This Institution based Cross – Sectional epidemiological study was carried out during the period September 2012 to August 2013 at 3 deaf and dumb institutes in Ahmedabad. All available students were selected as study subjects during visit period from these three deaf and dumb institutes. Thus total 687 children formed the sample size for this study. No Ethical issues were raised from this study as the whole study was carried out using the pre-designed standard questionnaire regarding their demographic details, causes of hearing loss, social relationship, behaviour problems, etc. Data entry was done in Microsoft Office Excel Database. Data were validated and analysed on Epi info software version 7.

IV. Results

Table 1: Age and Sex wise distribution of deaf and dumb children [n = 687]:

Age (years)	Boys (%)	Girls (%)	Total (%)
5-9	138 (33.25)	82 (30.14)	220 (32.02)
10-14	224 (53.97)	165 (60.66)	389 (56.62)
>14	53 (12.78)	25 (09.20)	78 (11.36)
Total	415 (100.00)	272 (100.00)	687 (100.00)

$$X^2 = 1.44, df = 2, p > 0.05$$

Table-1 Shows, that out of Total 687 deaf and dumb children were studied; there were 415 (60.41%) boys and 272 (39.59%) girls. Majority of the children 389 (56.62%) were in the age group of 10 to 14 years. Boys: Girls ratio is 1.53:1 in the present study. Mean age was 11.10 + 2.45 years.

Table 2: Demographic profile of the deaf and dumb children:

Demographic Profile	Frequency	Percentage
Religion		
Hindu	342	49.78
Muslim	210	30.57
Others	135	19.65
Total	687	100.00
Cast		
Open	296	43.08
SEBC	235	34.20
SC/ST	156	22.72
Total	687	100.00
Education		
Primary	617	89.81
Secondary	70	10.19
Total	687	100.00
Family type		
Joint	412	59.97
Nuclear	275	40.03
Total	687	100.00
SE class		
SE Class 1	58	8.44
SE Class 2	100	14.56
SE Class 3	241	35.08
SE Class 4	214	31.14
SE Class 5	74	10.78
Total	687	100.00
No. Of siblings		
0	210	30.56
1-2	256	37.26
>2	221	32.16
Total	687	100.00

Table 2 shows demographic profile of the children. Among all children 342 (49.78%) were Hindu, 210 (30.57%) were Muslim and 135 (19.65%) were from other religions. 296 (43.08%) were in open category while 156 (22.72%) children were in SC/ST category. 617 (89.81) children were having primary education while 70 (10.19) were having secondary education. 412 (59.97%) children were coming from joint family and 275 (40.03%) were from nuclear family. Majority children were from socio economical class 3. 159 (38.08%) boys were from class 3 while 114 (41.91%) girls were from class 4. 256 (37.26%) children were having 1 or 2 siblings and 221 (32.16%) were having more than 2 siblings.

Figure 1: Distribution of causes of deafness in urban area [n = 403]:

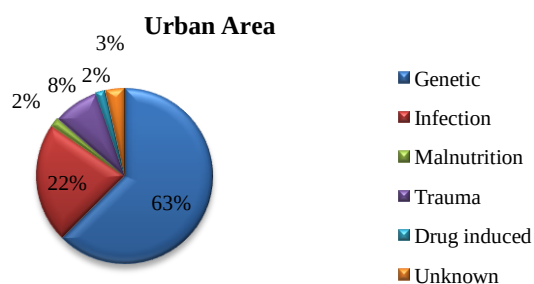


Figure 1 shows that 63% children had hearing loss due to genetic defects, 22% children had hearing loss due to infections, 8% had hearing loss due to trauma during or after delivery.

Figure 2: Distribution of causes of deafness in rural area [n = 284]:

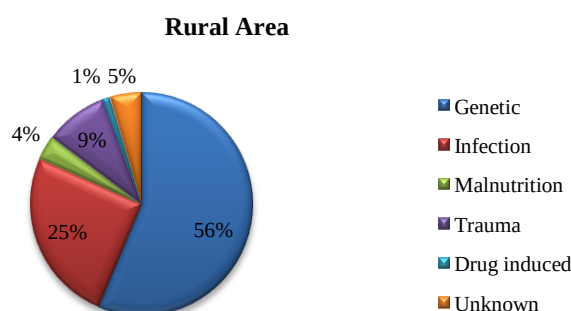


Figure 2 shows that 56% children had hearing loss due to genetic defects, 25% children had hearing loss due to infections, 9% had hearing loss due to trauma during or after delivery while 5% had deafness due to unknown reasons.

Table 3: Sex wise distribution of emotional reactivity among children [n = 687]:

Emotional reactivity	Boys (%)	Girls (%)	Total (%)
Anxious	68 (16.38)	46 (16.91)	114 (16.59)
Depressed	81 (19.51)	72 (26.47)	153 (22.27)
Aggressive	204 (49.15)	102 (37.50)	306 (44.54)
Dull	62 (14.93)	52 (19.11)	114 (16.59)
Total	415 (100.00)	272 (100.00)	687 (100.00)

$X^2 = 10.33, df = 3, p < 0.05$

Table 3 shows sex wise distribution of emotional reactivity among children. 114 (16.59%) children were anxious in nature, 153 (22.27%) children were depressed, 306 (44.54%) children had aggressive nature and 114 (16.59%) children were dull. The difference between boys and girls regarding to their emotional reactivity was found statistically significant.

Table 4: Social perception at home:

Social perception	Boys (n=415)		Girls (n=272)	
	Good	Bad	Good	Bad
Relation with family members	369 (88.91)	46 (11.09)	242 (88.97)	30 (11.03)
Interaction with siblings	273 (65.78)	37 (8.92)	143 (52.57)	24 (8.82)
	Yes	No	Yes	No
Acceptance and concern by parents	312 (75.18)	103 (24.82)	198 (72.79)	74 (27.20)
Any geographical restriction by parents or self	32 (7.71)	383 (92.29)	26 (9.55)	246 (90.44)

Note: Figures in parenthesis shows percentage.

Table 4 shows relation of deaf and dumb children at home. 369 (88.91%) boys had good relation among family members. Relation with siblings was good among 273 (65.78%) boys. 32 (7.71%) boys had geographical restriction imposed by their parents. 242 (88.97%) girls had good relation among family members. 143 (52.57%) girls had good relation with their siblings. 26 (9.55%) girls had geographical restriction imposed by their parents.

Table 5: Social perception at institute:

At institute	Boys (n=415)		Girls (n=272)	
	Good	Bad	Good	Bad
Relation with faculty members	372 (89.63)	43 (10.37)	245 (90.07)	27 (9.92)
Relation with deaf-dumb children in institute	366 (88.19)	49 (11.81)	248 (91.17)	24 (8.82)
	Yes	No	Yes	No
Fear of going to institute	89 (21.44)	326 (78.56)	66 (24.26)	206 (75.74)
Difference in mood/behaviour at home and institute	123 (29.63)	292 (70.37)	78 (28.67)	194 (71.33)

Note: Figures in parenthesis shows percentage.

Table 5 depicts that 372 (89.63%) boys had good relation with faculty members, 366 (88.19%) boys had good relation with other deaf and dumb children in institute. 89 (21.44%) boys had fear of going to institute. 123 (29.63%) boys had difference in mood at home and institute. Similarly 245 (90.07%) girls had good relation with faculty members, 248 (91.17%) girls had good relation with other children. 66 (24.26%) girls had fear of going to institute. 78 (28.67%) girls had difference in mood at home and institute.

Table 6: Distribution of children regarding the extent of social adjustment:

Extent of social adjustment	Boys (n=415)	Girls (n=272)	Total (N=687)
Developing friendship with normal children	88 (21.20)	65 (23.90)	153 (22.27)
Liking to attend functions	149 (35.90)	75 (27.57)	224 (32.60)
Uneasiness and shyness in meeting strangers	288 (69.40)	176 (64.70)	464 (67.54)

Note: Figures in parenthesis shows percentage.

$\chi^2 = 3.19$, $df = 2$, $p > 0.05$

Table 6 shows that total 153 (22.27%) children were good at developing friendship with normal children. 224 (32.60%) children were attending social functions. 464 (67.54%) children were feeling uneasiness and shyness in meeting strangers.

V. Discussion & Conclusion

Deaf and dumb children have difficulties with the expression and understanding of emotions. That's why in deaf and dumb children we can see relatively large amount of distrust, stubbornness and other behaviour problems.

In this study there were 49.78% Hindus and 30.57% Muslims where as in Bittles *et al*^[4] there were 32.30% Hindus and 17.71% Muslims in Punjab. Religion has not much influence on deafness. There were no studies found that correlate religion with the deafness. 31.14% children were from socio economic class 4 and 10.78% children were from socio economic class 5, while in Lasisi *et al*^[5] 69% children were from low socioeconomic class. Children from lower socio economic class have higher prevalence of ear infections due to lack of hygiene and prevalence of under nutrition is also higher among them.

Present study shows 59.97% children had hearing loss due to genetic causes while Alexandra *et al*^[6] found only 26% children with hearing loss due to genetic cause which is much lower than the present study. 69.84% children had hearing loss due to genetic causes in Feinmesser *et al*^[7] and 55% in Kankkunem *et al*^[8] which favors the findings of the present study.

In present study 44.54% children were aggressive in nature whereas study by Backett *et al*^[9] shows 16.95% children had aggressive behaviour and Tesfay *et al*^[10] found 16.67% children with aggressive behaviour which were lower than the present study. Eldik *et al*^[11] shows 19% among deaf children had aggressive nature which is again very less than the present study. In this study 11.06% children facing problems in their relation in family while Backett *et al*^[9] shows 72.88% children had problems in their relation in family which is much higher. 21% children had social problems according to study conducted by Eldik *et al*^[11] while in present study 11.06% children had social problems. 11.81% children had withdrawn themselves and were not mixing with other people. Similar finding (11%) was seen by Eldik *et al*^[11] in their study conducted in Netherland. The difference between findings of the various study related to social problem might be due to overall difference in cultural settings of European countries and India. In order to overcome the social challenges as well as to enhance the opportunities of the deaf children, the intervention would require an extensive input in the home, child, school, and the local community.

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