# Gender Perspectives in Ear Care: A CrossSectional Survey in Delhi 

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#### Abstract

Background: Ear disease in children is a major public health problem in developing countries. There has been scarcity of evidence of any gender differentials, if any exists, with ear care in the Indian context.

Objective: To study the gender perspectives in ear care with regard to attitude and health-seeking behavior of caregivers of children 1-10 years of age in Delhi.

Materials and Methods: This was a cross-sectional study conducted in an urban health center situated in the north-east district of Delhi from January to March 2015.160 caregivers of ill children aged 1-10 years who came to seek medical care in out-patient department (OPD) constituted the study population. Chi square test or Fisher's Exact test (wherever required) was used to observe the differences between qualitative variables.

Results: The study was conducted among 160 caregivers of 87 (54.4\%) male children and 73 (45.6\%) female children. Mean ( $\pm$ SD) monthly family income was INR 7637.5 $\pm 1155.30$. When inquired about the attitude of caregivers about playing of their child with another child who is suffering from hearing loss, 18 ( $20.7 \%$ ) caregivers of male children perceived that their child will also suffer from hearing loss while $30(41.1 \%)$ caregivers of female children, agreed for the same $\left(\chi^{2}=7.87, \mathrm{df}=1, \mathrm{p}\right.$ value $=0.01$ ).

Conclusion: The present study showed gender differences in some aspects of ear care, which points towards stigma and discrimination. There were important implications of differences in health seeking with gender.


Keywords: Ear care, Gender, Delhi

## Introduction

Ear disease in children is a major public health problem in developing countries, which can result in a number of social and psychological problems for affected children and their families. ${ }^{1}$ Prevalence of hearing impairment is substantially higher in middle- and low-income countries. The global prevalence of hearing impairment in 2008 was $1.4 \%$ for children aged $5-14$ years, $9.8 \%$ for females $>15$ years of age and $12.2 \%$ for males $>15$ years of age. ${ }^{2}$ In India also, hearing impairment and preventable ear diseases are important health problems among children with prevalence of ear diseases to be $11.3 \%$. $^{3}$
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Gender is one of the important determinants of healthseeking behavior along with others like family structure, literacy status, socioeconomic status, etc., as documented by another study. ${ }^{4}$ In the last decade, a considerable amount of research has been conducted in the area of gender and health to study gender differences in vulnerability to, and the impact of specific health conditions. ${ }^{5}$ Social factors, such as the degree to which women are excluded from schooling, or from participation in public life, affect their knowledge about health problems, their prevention and treatment.

The degree to which gender differentials affect health and disease varies by geographical or cultural patterns within countries but it is most pronounced in the developing countries. ${ }^{6}$ There has been ample evidence that gender differential affects health-seeking behavior. Gender difference has been described in literature with regard to mental health, micronutrient deficiencies, communicable diseases and non-communicable diseases like cardio vascular diseases and their risk factors. ${ }^{7-11}$ In Indian context, this gender difference is well documented in different areas affecting health of girl child. Girl child having lesser likelihood of getting immunization and nutritious diet has been solely a case of gender disadvantage. ${ }^{12}$ There has been scarcity of evidence of any gender differential, if it exists, with ear care in the Indian context. Looking at the burden and consequences of ear morbidities in children, it is important to study the gender perspectives in ear care with regard to attitude and health-seeking behavior of caregivers so that future strategies can be chalked out accordingly.

## Materials and Methods

Study Design, Participants and Sampling Technique
This was a cross-sectional study conducted in an urban health center situated in the north-east district of Delhi. Monthly patient load was approximately 3500 . The study was conducted over a period of 60 working days from January to March 2015. In the study, 160 caregivers of ill children aged 1-10 years who came to seek medical care in out-patient department (OPD) constituted the study population. Study subjects fulfilling the inclusion criteria were selected by simple random sampling method.

## Study Tool

A pre-tested, predesigned, semi-structured
questionnaire schedule in local language consisting of items on demographic profile including age and sex of the child, religion, education and occupation of caregivers, etc., was used. The questionnaire consisted of items to assess gender perspectives in attitude towards ear morbidities and ear care. Health-seeking behavior about health system and preference of healthcare provider were also asked. The questionnaire was pilot tested in a different setting among similar study subjects for assessing its feasibility and reliability. Suitable modifications were done afterwards. Cronbach's alpha which is a coefficient of internal consistency was calculated which came out to be 0.82 . Average time duration of each interview was approximately 5-10 minutes.

## Inclusion and Exclusion Criteria

Caregivers of all patients aged 1-10 years coming out from the consultation rooms were included. Caregivers of seriously ill patients, who needed immediate referral, were excluded from the study.

## Statistical Analysis

Data was analyzed using SPSS software (version 17). Results were presented in simple proportions and percentages. Chi square test or Fisher's Exact test (wherever required) was used to observe the differences between qualitative variables. The results were accepted statistically significant if " $p$ " value was less than 0.05.

## Ethical Issues

All study subjects were explained about the purpose of the study and confidentiality was assured to them before taking interview. A written informed consent was taken from the participants before start of interview.

## Results

## Sociodemographic Profile

The study was conducted among 160 caregivers of 87 (54.4\%) male children and 73 (45.6\%) female children. $48(30 \%)$ children were less than 2 years of age, 66 ( $41.2 \%$ ) were between $2-5$ years of age and 46 (28.8\%) were more than 5 years of age. Majority of families were Hindu (90.6\%) and nuclear (53.8\%) residing in the same community. Mean ( $\pm$ SD) monthly family income was INR 7637.5 $\pm 1155.30$. Details are shown in Table 1.

Table 1.Sociodemographic Profile of Study Subjects

| Characteristic |  | N=160 | Percentage (\%) |
| :---: | :---: | :---: | :---: |
| Gender of child | Male | 87 | 54.4 |
|  | Female | 73 | 45.6 |
| Age (in years) | $<2$ years | 48 | 30.0 |
|  | $2-5$ years | 66 | 41.2 |
|  | $>5$ years | 46 | 28.8 |
| Religion | Hindu | 145 | 90.6 |
| Education of mother | Muslim | 15 | 9.4 |
|  | Illiterate | 25 | 15.6 |
|  | Till Middle | 61 | 38.1 |
| Education of father | High school completed | 47 | 29.4 |
|  | Graduation and above | 27 | 16.9 |
|  | Illiterate | 14 | 8.8 |
|  | Till Middle | 47 | 29.4 |
| Type of family | High school completed | 71 | 44.4 |
|  | Graduation and above | 28 | 17.5 |
|  | Nuclear | 86 | 53.8 |
|  | Joint | 74 | 46.2 |

## Attitude towards Ear Care: Gender Perspectives

When asked about the attitude of caregivers, if they would like to disclose to relatives if their child develops any hearing problem, among caregivers of male children 68 (78.2\%) replied positively while among caregivers of female children, 51 (69.9\%) replied positively, but this difference was not statistically significant ( $\chi^{2}=1.43, d f=1$, $p$ value $=0.23$ ). about the marriage of an unmarried girl having hard of hearing, 63(72.4\%) and 58(79.5\%) caregivers of male and female children respectively perceived there will be problems in marriage while among caregivers of female children, 58 (79.5\%) agreed for the same but this difference was not statistically
significant ( $\chi^{2}=1.06, d f=1, p$ value $=0.30$ ). When inquired about the attitude of caregivers about their child playing with another child who is suffering from hearing loss, caregivers of 18 (20.7\%) male children and 30 ( $41.1 \%$ ) female children perceived that their child will also suffer from hearing problem. This difference was statistically significant ( $\chi^{2}=7.87, d f=1, p$ value $=0.01$ ). About the perception of caregivers if they would like their child to marry a person with treated hearing loss, 38 (43.7\%) caregivers of male children replied positively, while 19 (26\%) caregivers of female children agreed for the same. This difference was statistically significant ( $\chi^{2}=5.39$, $d f=1, p$ value $=0.02$ ) as shown in Table 2.

Table 2.Gender-Wise Distribution of Attitude of Caregivers about Ear Care

|  | Male $\mathrm{N}=87$ <br> (\%) |  | Female $\mathrm{N}=73$ <br> (\%) |  | Chi square, df, $p$ value |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Attitude | Yes | No | Yes | No |  |
| If your child is suffering from hearing problem, would you like to disclose it to others | $\begin{gathered} 68 \\ (78.2) \end{gathered}$ | $\begin{gathered} 19 \\ (21.8) \end{gathered}$ | $\begin{gathered} 51 \\ (69.9) \end{gathered}$ | $\begin{gathered} 22 \\ (30.1) \end{gathered}$ | 1.43, 1, 0.23 |
| Do you think an unmarried girl suffer from problem in marriage if she is hard in hearing | $\begin{gathered} 63 \\ (72.4) \end{gathered}$ | $\begin{gathered} 24 \\ (27.6) \end{gathered}$ | $\begin{gathered} 58 \\ (79.5) \end{gathered}$ | $\begin{gathered} 15 \\ (20.5) \\ \hline \end{gathered}$ | 1.06, 1, 0.30 |
| Do you think if your child plays with another child with hearing loss, your child will also suffer from hearing loss | $\begin{gathered} 18 \\ (20.7) \\ \hline \end{gathered}$ | $\begin{gathered} 69 \\ (79.3) \end{gathered}$ | $\begin{gathered} 30 \\ (41.1) \end{gathered}$ | $\begin{gathered} 43 \\ (58.9) \end{gathered}$ | 7.87, 1, 0.01 |
| Would you like to marry your child to a person with treated hearing problem | $\begin{gathered} 38 \\ (43.7) \end{gathered}$ | $\begin{gathered} 49 \\ (56.3) \end{gathered}$ | 19 (26) | 54 (74) | 5.39, 1, 0.02 |

Among the caregivers of male children, 49 (56.3\%) perceived that hearing loss is treatable, 11 (12.6\%) thought it is untreatable and 27 (31\%) said they have no idea while the proportion among caregivers of female children was $46.6 \%, 16.4 \%$ and $37 \%$ respectively.

However, this difference was not statistically significant $\left(\chi^{2}=1.54, d f=2, p\right.$ value $\left.=0.46\right)$. About the preference of healthcare providers, 66 (75.9\%) caregivers of male children preferred government health facility while 21 (24.1\%) preferred private providers. Among the
caregivers of female children, 58 (79.5\%) preferred government and 15 (20.5\%) private providers. But this difference was not statistically significant ( $\chi^{2}=0.29, d f=1$, $p$ value=0.58). Data was also collected about the preference of health system for consultation of ear morbidities. Allopathic practitioners were preferred by 52 (59.8\%) of caregivers of male children and 25 (34.2\%) of female children. This difference in system of medicine preferred was statistically significant ( $\chi^{2}=9.36, d f=1, p$ value $=0.01$ ). Home remedies were reported tried initially at home for ear morbidities by 26 (29.8\%) and 55 ( $75.3 \%$ ) caregivers of male and female children respectively which was significant with $\chi^{2}=32.84, \mathrm{df}=1, \mathrm{p}$ value $=0.01$.

## Discussion

The present cross-sectional study was carried out among 160 caregivers of 87 (54.4\%) male children and 73 (45.6\%) female children in an urban health center in Delhi. 145 (90.6\%) were Hindu, 86 (53.8\%) belonged to nuclear families. Mean ( $\pm$ SD) monthly family income was INR 7637.5士1155.30.

There was no significant difference seen with gender when caregivers were asked if they would disclose to their relatives if the child is suffering from any hearing problem. This is a positive finding because it is expected that caregivers would not hide their ear morbidities and approach timely for health seeking so that early intervention and treatment can be initiated. Another positive finding was no significant difference in attitude of caregivers towards marriage of unmarried girl if she is hard in hearing. However, significantly high proportion of caregivers of female children than male children perceived that if their child plays with another child with hearing loss, their own child would also suffer from hearing loss. This is a serious issue which points towards the stigma and discrimination associated with hearing loss in the community. Stigma for hearing loss has been pointed out by other authors as well previously. ${ }^{13}$ This stigma has important implications on health seeking and compliance. In order to avoid being identified as a member of a stigmatized group, individuals with hearing loss may choose not to seek health services or fail to comply with recommended treatments. ${ }^{14}$

Significantly less number of caregivers of female children expressed their acceptance towards marrying their child to a person with treated hearing problem than male children. This also points towards the stigma associated with people with hearing loss. Social acceptance of people rehabilitated after hearing loss is very important. They should be given equal place for leading a socially productive life.

About the health-seeking behavior, caregivers of both male and female children preferred government healthcare facilities. There was no association found between gender and preference of consultation. This is consistent with the findings of other studies conducted by Patel et al. and Shah et al., where also there was no significant difference found between gender and consultation. ${ }^{15,16}$ However, there was gender difference found between preferences of health care providers. Significantly more caregivers of male children preferred allopathic practitioners than female children. Caregivers of female children reported trying home remedies first for ear morbidities which may point towards delay in reporting to health facility. Similar findings of home management of ear morbidities were reported by other authors as well. ${ }^{17}$

## Conclusion

The present study showed gender differences in some aspects of ear care which points towards stigma and discrimination. There were important implications of differences in health seeking with gender. There is need to train healthcare providers to assess gender differences with ear care health seeking.

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## Conflict of Interest: Nil

## References

1. Biswas AC, Joarder AH, Siddiquee BH. Prevalence of CSOM among rural school going children. Mymensingh Med J 2005; 14: 152-55.
2. Stevens G, Flaxman S, Brunskill E et al. Global and regional hearing impairment prevalence: An analysis of 42 studies in 29 countries. Eur J Public Health 2013; 23(1): 146-52.
3. Srivastava DK, Tripathi D, Gour N et al. Morbidity profile of under five children in urban slum of Utawah district. Ind J Community Health 2012; 24(2): 153-57.
4. Ghosh N, Chakrabarti I, Chakraborty M et al. Factors affecting the healthcare-seeking behaviour of mothers regarding their children in a rural community of Darjeeling district, West Bengal. Int J Med Public Health 2013; 3: 12-16.
5. Vlassoff C, Garcia Moreno C. Placing gender at the centre of health programming: challenges and limitations. Soc Sci Med 2002; 54(11): 1713-23.
6. Vlassoff C. Gender differences in determinants and consequences of health and illness. J Health Popul Nutr 2007; 25(1): 47-61.
7. Afifi M. Gender differences in mental health. Singapore Med J 2007; 48(5): 385-91.
8. Darnton-Hill I, Webb P, Harvey PW et al. Micronutrient deficiencies and gender: social and economic costs. Am J Clin Nutr 2005; 81(5): 1198S205S.
9. Khuwaja AK, Kadir MM. Gender differences and clustering pattern of behavioural risk factors for chronic non-communicable diseases: communitybased study from a developing country. Chronic IIIn 2010; 6(3): 163-70.
10. Njelekela MA, Mpembeni R, Muhihi A et al. Genderrelated differences in the prevalence of cardiovascular disease risk factors and their correlates in urban Tanzania. BMC Cardiovasc Disord 2009; 9: 30.
11. Kaur M, Sodhi SK, Kaur P et al. Gender differences in health care seeking behaviour of tuberculosis patients in Chandigarh. Indian J Tuberc 2013; 60: 217-22.
12. Borooah VK. Gender bias among children in India in
their diet and immunisation against disease. Soc Sci Med 2004; 58(9): 1719-31.
13. Erler SF, Garstecki DC. Hearing loss- and hearing aidrelated stigma. Am J Audiol 2002; 11: 83-91.
14. Southall K, Gagné JP, Jennings MB. Stigma: A negative and a positive influence on help-seeking for adults with acquired hearing loss. Int J Audiol 2010; 49(11): 804-14.
15. Patel HC, Moitra M, Modi A et al. Health seeking behavior among parents of children with hearing loss: a cross sectional study. Nat/J Community Med 2014; 5(1): 33-37.
16. Shah VR, Lodha N, Patel B et al. Assessment of ear nose and throat morbidities prevalent in the school going children aged 5-14 years in rural area of Jamnagar. J Res Med Den Sci 2014; 2(4): 71-74.
17. Curry MD, Mathews HF, Daniel HJ et al. Beliefs about and responses to childhood ear infections: A study of parents in eastern North Carolina. Soc Sci Med 2002; 54(8): 1153-65.

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