



## HEARING IMPAIRMENT AND EAR DISEASES IN RURAL RAJASTHAN.

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### ABSTRACT:

Background- Communication disorders are often being referred to those hidden disabling conditions, which usually affects the social and emotional well-being of an individual.

Methods- The Department of ENT was conducted a hospital based. All the participants were selected randomly based on their willingness to participate in the study. All the participants were explained in detail about the purpose of the study and oral consent were taken from all participants. Most of them were belonging from low-to-medium socio-economic status and had education up to primary level.

Results- A total of 500 participants participated in the survey. In total of 500 participants, 220 participants (44%) were at risk of hearing loss, whereas, 85 participants (18%) were having ear discharge. Among the 200 participants in the age range of 8 to 17 years, 20% found to be at risk of hearing loss according to questions related to self-assessment of hearing impairment and 24% were having ear discharge. Among 200 participants in the age range of 18 to 35 years, 40% were at risk of hearing loss and only 10% were suffering from ear discharge. There were 60 participants in the age range of 36 to 55 years, 46.67% were found to be at risk of hearing loss, whereas, 10% were having ear discharge. Among 40 participants above 56 years, 80% of the participants were at risk of hearing loss and only 10% of the participants were having active ear discharge.

Conclusion- The finding of the present study revealed that a good percentage of population in rural part of Rajasthan were at risk of hearing loss.

**Keywords:** Rajasthan, Hearing Loss, India, Rural.

### Introduction

Communication disorders are often being referred to those hidden disabling conditions, which usually affects the social and emotional well-being of an individual.<sup>1-2</sup>

One such kind of communication disorder is "Hearing Impairment". There is variation in the prevalence of hearing impairment reported across several studies across the globe. This wide range of variability across the numerous studies could be due to modes of collecting information was different in those studies, for example such as definition and classification of the disorder, total

number of population studied, the age of the participants included in that particular study, rural versus urban population, etc. The rural section in India forms a challenging area owing to many limitations. Literature also supports that the disabling hearing impairment is accounted more in rural areas (15.14%) than in urban areas (5.9%).<sup>3</sup> Apart from poverty there is high ignorance and acceptance of hearing problems in rural India. The limitations in hearing screening procedures, implementation of management plans form a dearth insight to identify hearing disorders at earliest in the rural parts of India.

Awareness of problems related to hearing and speech disorders is always less in rural areas compared to the urban areas. From the above literature it was observed that there was lack of literature regarding hearing disorders in rural part of Rajasthan, India. That was selected for the survey and screening of hearing disorder in a rural area of Rajasthan. Hence, the current study was conducted to analyze the distribution of hearing impairment among the rural Rajasthan.

**Materials and Method**

The Department of ENT was conducted a hospital based. All the participants were selected randomly based on their willingness to participate in the study. All the participants were explained in detail about the purpose of the study and oral consent were taken from all participants. Most of them were belonging from low-to-medium socio-economic status and had education up to primary level. There were 13 questions adapted from similar kind of studies which was related to self-assessment of hearing quality and history of any kind of pathological condition. The questions were ‘hear but don’t always understand what others are saying’, ‘trouble in hearing when people speak softly’, ‘history/active ear discharge’, ‘always listen music at maximum volume’, ‘talk over phone for more than 3 hours a day’, ‘trouble in understanding someone if they are speaking in a different room’, ‘trouble in hearing when they are not facing me’, ‘people tell to turn down the TV’, ‘hard to hear in group setting’, ‘difficulty in understanding words while watching play or movie’, ‘trouble in hearing over telephone’, ‘trouble in hearing in a restaurant’, ‘trouble in making out words in a song’. These questionnaires were translated in to Hindi and reverse translation was carried out make sure that the meaning of the content remains the same. These translated questions in Hindi were proofread by a native speaker of Hindi as well as having knowledge of English too. These questions were closed-set task in 3-point rating scale i.e. no, sometime and yes. All the participants were instructed to answer these questions in writing/verbally while selecting the most appropriate single answer under the close

supervision. The data collected was then analyzed using EPI Info software, which included descriptive statistics, percentages and proportions of the subjects included in the study, with respect to a particular response.

**Results and Discussion**

A total of 500 participants participated in the survey, which includes 200 participants in the age range of 8 to 17 years, 200 participants in the age range of 18 to 35 years, 60 participants in the age range of 36 to 55 years and 40 participants above 56 years.

**Table 1:**

| Age group    | No. of patients | Percentage |
|--------------|-----------------|------------|
| 8 to 17 Yrs  | 200             | 40.00      |
| 18 to 25 Yrs | 200             | 40.00      |
| 26 to 55 Yrs | 60              | 12.00      |
| More than 55 | 40              | 8.00       |
| Total        | 500             | 100.00     |

A total of 500 participants participated in the survey. In total of 500 participants, 220 participants (44%) were at risk of hearing loss, whereas, 85 participants (18%) were having ear discharge. Among the 200 participants in the age range of 8 to 17 years, 20% found to be at risk of hearing loss according to questions related to self-assessment of hearing impairment and 24% were having ear discharge. Among 200 participants in the age range of 18 to 35 years, 40% were at risk of hearing loss and only 10% were suffering from ear discharge. There were 60 participants in the age range of 36 to 55 years, 46.67% were found to be at risk of hearing loss, whereas, 10% were having ear discharge. Among 40 participants above 56 years, 80% of the participants were at risk of hearing loss and only 10% of the participants were having active ear discharge. Pearson’s correlation test showed strong positive correlation between outcome of different questions i.e. ‘hear but don’t always understand what others are saying’, ‘trouble in hearing when people speak softly’. Similarly, strong positive correlation seen between different questions i.e. ‘talk over phone for more than 3 hours a day’,

‘trouble in understanding someone if they are speaking in a different room’, ‘trouble in hearing when they are not facing me’. Findings of the present study is in consonance with the previous literature.<sup>3</sup>

### Summary and Conclusion

The finding of the present study revealed that a good percentage of population in rural part of Rajasthan were at risk of hearing loss.

### References

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