

Awareness on Communication Disorders in Hospet Taluk of Karnataka: A Preliminary Survey Report

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Abstract

Background: Awareness about any condition is considered to be the first step in the prevention of any disorder. Similarly, understanding the level of awareness with respect to literacy is an essential to create awareness as part of primary prevention activities. However, in Indian context, there is dearth of documented evidence on studying the awareness of communication disorders in the general population. Hence, the present study was aimed to understand the level of awareness among the people towards communication disorders and its relation to literacy.

Method: In an experimental survey research, 145 volunteers in the age range of 19 to 67 years were considered. A Questionnaire was developed as part of the study which consisted of six close ended 'YES-NO' type questions. The questionnaire was administered by the investigator to all the participants.

Results: Results on frequency distribution revealed that the 79.18% (114 of 145) of people rated as 'YES' and 19.55% (31 of 145) said as 'NO'. Further, quantitative analysis was done through crosstabs analysis to study the effect of literacy on level of awareness on communication disorders. With respect to literacy towards awareness, 80.13% of the literate group answered 'YES', and 19.88% rated as 'NO'. Similarly, 70.23% illiterates rated as 'YES' and 29.76% rated as 'NO'. Results of the chi-square test revealed that there was no significant association ($p > 0.05$) seen between literates and illiterates for all the questions except for

awareness on ‘effect of music on hearing’ (literate showed awareness of the problem than illiterate).

Conclusion: To conclude, the present study emphasized on high awareness of communication disorders in the general public of Hospet Taluk of Bellary district.

Key words: Awareness, communication disorders, ‘YES-NO’ type questions, questionnaire, literacy, Karnataka, India.

Introduction

Communication is multimodal. Communication refers to the sending and receiving of messages, information, ideas or feelings (Hulit & Howard, 2002). The process of communication is enhanced by the use of facial expressions, gestures, eye gaze along with speech. In the process of communication, language is considered an essential part of human interaction and transmission of information. Language has been defined by American Speech-Language-Hearing Association (Committee on Language, 1982) as a “complex and dynamic system of conventional symbols that is used in various modes for thought and communication” (American Speech-Language-Hearing Association, 1982). On the other hand, speech is considered the vocal utterance of language (McKibbin, 1995). Hearing is defined as the sense that perceives sound and the process by which sound is perceived. Disturbance in communication in terms of speech, language and hearing can lead to some form of communication disorders. The field of Audiology and Speech-Language Pathology deals with understanding speech, language and hearing mechanisms, also deals with communication disorders and its prevention at various levels. These levels include primary prevention, secondary and tertiary prevention of communication disorders. According to American Speech and Hearing Association (1991), Primary prevention refers to the “elimination or inhibition of the onset and development of communication disorder by altering susceptibility or reducing exposure for susceptible persons” (American Speech-Language-Hearing Association, 1988). Although Speech, language and hearing problems are not always identified and treated especially in rural areas, their incidence and prevalence is more (Census of India, 2001). The factors like ageing, growth in population, materialization of

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medical advancement, presence of chronic diseases, generating irresistible demands for health and rehabilitation services result in the increase of the people with disabilities (Srivastava & Khan, 2008).

Incidence of Disability or Impairment

The incidence of disability or impairment was 10 percent of the total world's population (WHO, 2011). Census of India (2011) reports that disability rate was 2.21 % to the total population of India. More disability was found in the rural (2.24%) than the urban (2.17%) areas of India (Census of India, 2011). The incidence of hearing disability was 18.9%, whereas speech impairment and mental retardation was 7.5% and 5.6% respectively (Census of India, 2011). Though the prevalence and incidence rate of communication disorders due to various conditions such as mental retardation, hearing impairment, etc. are high, the identification is still a lacunae due to lack of awareness among the general population. Awareness among the general public is essential in order to identify and avail appropriate services in terms of diagnostic and therapy services to persons with communication disorders. In India there have been many institutional based, NGO based and private firms who cater to persons with communication disorders in order to deliver diagnostic and speech-language therapy services to the needy. The possible reasons that can be rounded off or people not availing these services are hinting against lack of awareness on whether a condition is normal or not and if not normal where to avail these services. Awareness among a community has often been found to reduce the prevalence of any disability (Jeevan, Sharmila & Rishita, 2003).

Focus of This Study

In the present study an attempt was made to report the level of awareness among the general population on various communication disorders such as inadequate speech and language, hearing impairment, misarticulation, stuttering, acquired conditions such as noise induced hearing loss, etc. In literature it was reported that, a person or a child with misarticulation was considered to be less intelligent, less educated, and less employable than normal peers (Freeby & Madison, 1989; Madison, 1992). A wrong perception of a condition due to lack of awareness has had its impact on the psychological and also socio-economic status of individuals with disability

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and people associated with them. Persons with hearing impairment were reported to have problems with employment due to their disability (Woodward, 1982). Yet another study reported greater psychological or psychosocial problems in person with stuttering (Louis & Lass, 1981). These attitudes and awareness may contribute major role in identifying and prevention of communication disorders.

Lack of Awareness in India

In the field of communication disorders, especially in the Indian scenario, lack of awareness due to various factors such as lack of education, poor socio-economic status, superstitious beliefs, distance from the source of information, poor access to mass media and few others have been found to be contributing to inability to avail rehabilitative services. Amongst the above mentioned factors, education/literacy has been found to be the most contributing factor to the awareness level in public. Studies report that the individuals with illiteracy assumed to have less awareness, supernatural beliefs and misconceptions about education, employment and family life of people with disabilities (Jeevan, et al., 2007). According to the Census of India (2011), literacy rate in India is 74.04%, whereas literacy rate in the state of Karnataka was found to be 75.36%. Out of which, 85.78% of the people were literates in urban regions and 68.73% of the people were literates in rural areas (Census of India, 2011). In India, awareness regarding speech language and hearing problems is found to be relatively lesser in the rural areas than the urban. In the rural regions, parents are quiet unaware of autism and its symptoms (Borneo news online, 2014).

In the Indian context, there has been lack of published reports on studying the awareness of communication disorders in the general population. Understanding the level of awareness and its relation to literacy will help the professional find ways to create awareness as part of primary prevention activities. Hence, the present study aimed to understand the relation between the literacy level and awareness towards communication disorders in Hospet region of Karnataka state.

Method

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A survey method was used to quantify the awareness of communication disorders among the general public.

Participants: One hundred and forty five participants in the age range of 19 to 67 years with the mean age of 37.70years participated in the study. All were recruited as volunteers who attended the speech and hearing camp organized by the All India Institute of Speech and Hearing, Mysore in coordination with Lions club, Hospet Taluk. Participants were native speakers of Kannada language (one of the South Indian Dravidian languages) from urban and rural villages in the Bellary district of eastern part of Karnataka. The participants were grouped into two categories based on their literacy i.e. Illiterate and Literate.

Materials: A Questionnaire was developed as part of the study which consisted of 06closed ended ‘yes-no’ type questions. The questionnaire was prepared with the help of experienced Speech-Language Pathologists and Audiologists working in the area of prevention of communication disorders, which taps basic information on awareness of a person towards communication disorders.

Procedure: The present study was carried out within the urban area in Hospet Taluk of Bellary district. The questionnaire was administered by the investigator by seating the participants comfortably on a chair. The investigator initially built rapport with the participants and then collected the demographic details. The following instructions were given to the participants in Kannada. “Now I will be asking you a few questions which are related to speech, language and hearing problems. I want you to think and tell me the answer. Are you clear with the instructions? Do you have any questions to ask? Shall we start?”.The participants were instructed to either say ‘Yes’ or ‘No’ to the questions. The responses were noted and compiled for further analysis using Statistical Packages for Social Sciences (SPSS), version 17.

Results and Discussion

The aim of the present study was to understand the level of awareness of people towards communication disorders and its relation to literacy. The data was analyzed on the basis of the

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number of questions answered in the yes-no format. Descriptive statistics was done for all the questions to know the level of awareness among general public and the literacy level. The results are discussed under each question. Table 1 shows the results for yes-no ratings for all the six questions (see appendix I).

Table 1

'YES-NO' ratings for different type of questions (N=145)

	Q1	Q3	Q4	Q5	Q6	Q2
Yes	121	118	107	116	113	113
No	24	27	38	29	32	32

*Q – Questions

- a. **Question 1:** For the question ‘Can you identify hearing loss at an early stage?’, analysis of results as shown in Table 1 revealed that 121 out of 145 (83.4%) people answered the question as ‘YES’ and 24 of 145 (16.6%) rated as ‘NO’. Crosstab analysis along with Chi-square test was done to determine the association of literacy and awareness in the group. With respect to literacy towards awareness of the “identification of hearing loss at an early age”, among the literate groups 108 of 131 (82.14%) answered ‘YES’, and 23 of 131 (17.6%) rated as ‘NO’. Similarly, 13 of 14 (92.9%) illiterates rated as ‘YES’ and 1 of 14 (7.1%) rated as ‘NO’ (Figure 1). Results of the Chi-square test showed no significant association [$\chi^2 (1, 145) = 0.99, p=0.31$] between literacy and awareness. The findings indicated that there is an awareness of early identification of hearing loss amongst the population surveyed despite the individuals being literate or illiterate.

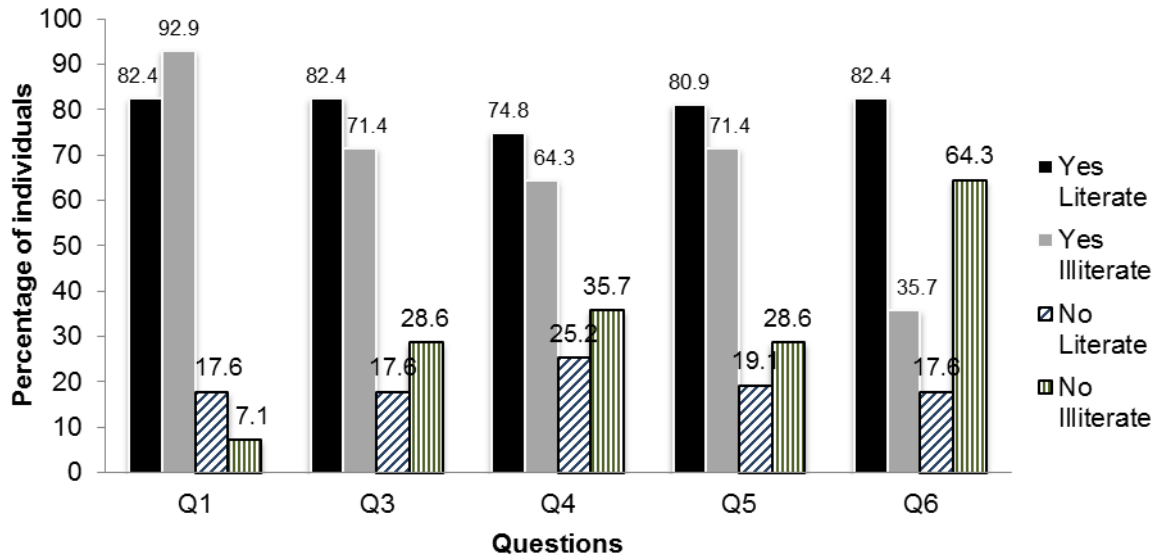


Figure 1: Percentage of responses from the participants

- b. **Question 2:** For the question ‘Reading and writing problems in a school’, analysis of results as shown in Table 1 revealed that 114 of 145 (78.6%) revealed as ‘problem’ and 31 of 145 (21.4%) answered as ‘child is not interested’. Crosstab analysis along with Chi-square test was done to determine the association of literacy and awareness in the group. With respect to literacy towards awareness of the “Reading and writing problems in a school”, among the literate groups 102 of 131 (77.9%) answered as ‘problem’, and 29 of 131 (22.1%) rated as ‘child not interested’. Similarly, 12 of 14 (85.7%) illiterates rated as ‘problem’ and 2 of 14 (14.3%) rated as ‘child not interested’ (Figure 2). The analysis of results revealed that the general public was aware that learning disability in children was a ‘problem’ and LD does not mean that the ‘child is not interested’. In the past, the widely accepted notion among parents and teachers was that a child showed reading and writing problems as they were either lazy or disinterested in literacy related tasks. Results of the chi-square test revealed no significant association [$\chi^2 (1, 145) = 0.46, p=0.49$] between literacy, It indicates that despite illiteracy, the public was aware that reading and writing difficulties in children was a ‘problem’ on its own (Figure 2).

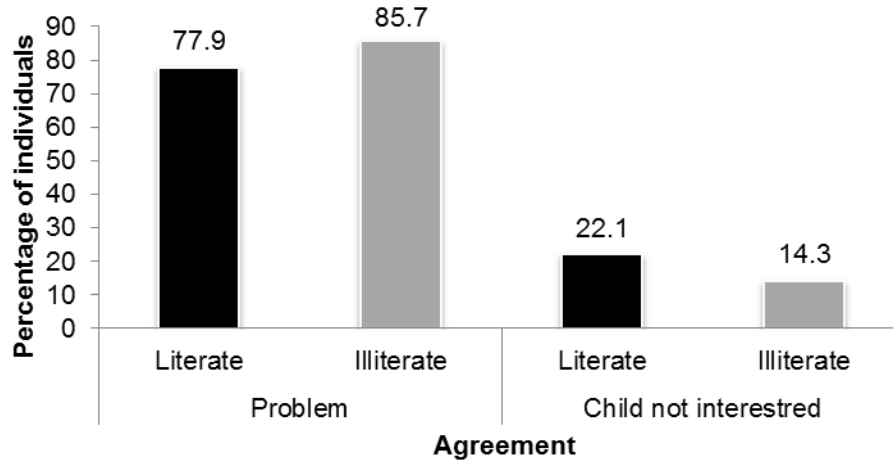


Figure 2: Percentage of responses from the participants rated for question 2.

- c. **Question 3:** For the question ‘Can stammering/ stuttering be treated?’, analysis of results as shown in Table 1 revealed that 118 of 145 (81.4%) people answered the question as ‘YES’ and 27 of 145 (18.6%) rated as ‘NO’. Crosstab analysis along with Chi-square test was done to determine the association of literacy and awareness in the group. With respect to literacy towards awareness of the “treatment of stuttering”, among the literate groups 108 of 131 (82.14%) answered ‘YES’, and 23 of 131 (17.6%) rated as ‘NO’. Similarly, 10 of 14 (71.4%) illiterates rated as ‘YES’ and 4 of 14 (28.6%) rated as ‘NO’ (Figure 1). Results of the chi-square test revealed no significant association [$\chi^2 (1, 145) = 1.01, p=0.31$] between literacy. This indicated that there is an awareness of “treatment of stuttering” amongst the public despite the individuals being literate or illiterate. Hence, there was no significant association of literacy and awareness about stuttering treatment in the population surveyed.
- d. **Question 4:** For the question “Can we elicit speech for children with hearing loss?”, analysis of results as shown in Table 1 revealed that 107 of 145 (73.8%) people answered the question as ‘YES’ and 27 of 145 (18.6%) rated as ‘NO’. Crosstab analysis along with Chi-square test was done to determine the association of literacy and awareness in the group. With respect to literacy towards awareness of the “elicitation of speech for children with hearing loss”, among the literate groups 98 of 131 (74.8%) answered

‘YES’, and 33 of 131 (25.2%) rated as ‘NO’. Similarly, 9 of 14 (64.3%) illiterates rated as ‘YES’ and 5 of 14 (35.7%) rated as ‘NO’ (Figure 1). Results of the chi-square test showed no significant association [χ^2 (1, 145) = 0.72, $p=0.39$] between literacy. This states that, participants have knowledge about intervention of hearing loss and speech, language therapy despite the individuals being literate or illiterate.

- e. **Question 5:** For the question “expose to loud sounds effects hearing”, analysis of results as shown in Table 1 revealed that 116 of 145 (80%) people answered the question as ‘YES’ and 29 of 145 (20%) rated as ‘NO’. This view is true with respect to transport drivers. Almost 84% of the public transport drivers are aware of the risk of noise exposure on hearing. Noise induced hearing loss is quite prevalent in a civilization, but there a lack of awareness about noise exposure (Javed, Azeem & Batool, 2008). Crosstab analysis along with Chi-square test was done to determine the association of literacy and awareness in the group. With respect to literacy towards awareness of the “loud sounds and its effects on hearing”, among the literate groups 106 of 131 (80.9%) answered ‘YES’, and 25 of 131 (19.1%) rated as ‘NO’. Similarly, 10 of 14 (71.4%) illiterates rated as ‘YES’ and 4 of 14 (28.6%) rated as ‘NO’ (Figure 1). Results of the chi-square test revealed no significant association [χ^2 (1, 145) = 0.71, $p=0.39$] between literacy. This indicated that there is an awareness of “loud sounds and its effects on hearing” amongst the public despite the individuals being literate or illiterate. One of the recent study opposed that mill workers may have poor understanding about the effect of noise on hearing due to low literacy level and lack of knowledge (Kitcher, Ocansey, Abaidoo, & Atule, 2014).
- f. **Question 6:** For the question ‘Hearing effects by listening to loud music’, analysis of results as shown in Table 1 revealed that 113 of 145 (77.9%) people answered the question as ‘YES’ and 32 of 145 (22.1%) rated as ‘NO’. Crosstab analysis along with Chi-square test was done to determine the association of literacy and awareness in the group. With respect to literacy towards awareness of the “loud music and its effects on hearing”, among the literate groups 108 of 131 (82.4%) answered ‘YES’, and 23 of 131

(17.6%) rated as 'NO'. Similarly, 5 of 14 (35.7%) illiterates rated as 'YES' and 9 of 14 (64.3%) rated as 'NO' (Figure 1). Results of the chi-square test showed significant association [$\chi^2 (1, 145) = 16.05, p=0.00$] between literacy. This declares that, literates have more knowledge about loud music and its effect on hearing loss than illiterates. Akdag (2013) found that the musicians (around 76%) were aware about the relationship between music and NIHL.

Steps for Prevention

Awareness about any condition is considered to be the first step in the prevention of any disorder or disability. General notion is that earlier the identification takes; the better would be the effectiveness of any rehabilitation program. Most of the participants in the present study are aware of the risk factors, causes and intervention of communication disorders irrespective of the literacy rate. This might be due to the involvement of the NGO's and other similar organization who are concerned in carrying out the prevention activities at various levels. They have been constantly involved in organizing continual screening programs through camps for communication disorders in the region of Hospet Taluk in Karnataka. Increased awareness in the present state could also be due to the easier accessibility to technology in terms of television, mobile phones, movies, travel, and literature, which in turn affect awareness towards people with disabilities. Awareness regarding communication disorders among general public is important, because it helps to identify and rehabilitate persons with communication disorder as early as possible. The current study indicated very good awareness about the communication disorders irrespective of their literacy. However, steps need to be initiated to create greater awareness on prevention of communication disorders across the country.

Conclusion

Educating the public regarding early identification, preventive service benefits will provide a unique opportunity and challenge for the behavioral health community (Hendriksson, 2008). The present study indicated a high level of awareness of communication disorders despite of literacy in the region of Hospet Taluk of Bellary District. Lack of awareness and understanding of a condition may lead to false beliefs thus delay in the identification of a

condition and also a consequence failure to avail the services in time. Increased public awareness and orientation programs are required to help people for being aware of the conditions and also create positive attitude in all those individual who are unaware of such conditions. This helps in reducing the growing burden of disability in India.

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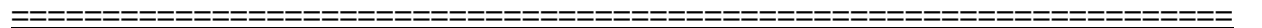
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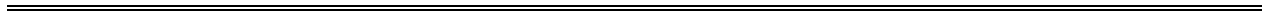
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Appendix -I

A questionnaire for awareness on Communication disorders

Name: _____ Age/Gender: _____
 Education: _____ Occupation: _____
 Place: _____

S.No	Question	Response
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1	Can u identify hearing loss at an early stage?	Yes/No
2	If your child is not reading or writing properly then will you consider that as a problem or you will consider it as the child is not interested?	Problem/Child not interested
3	Can stammering/ stuttering be treated?	Yes/No
4	Can we elicit speech for children with hearing loss?	Yes/No
5	If you hear loud noise for longer time, will it lead to hearing loss?	Yes/No
6	Can listening to music for longer duration lead to hearing loss?	Yes/No
7	If the child is not speaking for a year, then how long can u wait?	Yes/No

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