

Original Research**Prevalence of dental caries among children with speech and hearing impairment in Ramapuram, Chennai****Jyothi Latha Ballal, Adil Ahmed***Department of Public Health Dentistry, SRM Dental College, Ramapuram, Chennai***Address for correspondence****Dr. Jyothi Latha Ballal**
Department of Public Health Dentistry
SRM Dental College
Ramapuram, Chennai 89**Abstract**

Children and adolescents with disabilities appear to have poorer oral health than their non-disabled counterparts. Number of studies has shown that challenges to oral health are more complex for disabled children who are unable to adequately apply the techniques necessary to control plaque. Inaccessibility to dental care and disability-related factors may also account for these differences.

Methodology: 209 Children with speech and hearing impairment were selected using a convenient sampling method from schools for speech and hearing impairment. The demographic data regarding name, age and gender were collected using school records. The dental caries status was assessed using DMFT index (1938).

Results: The mean DMFT of male children was found to be 1.72 (± 1.64) which was lower than female children whose DMFT was 1.06 (± 1.75) and the mean DMFT status of 5 - 12 years age group was 0.852 (± 1.34) and slightly higher for 13 - 20 years age group 0.985 (± 1.83).

Keywords: Dental Caries, Speech, Hearing, Impairment

Introduction

Dental caries is the most common oral disease in children despite being potentially preventable, and may require expensive treatment when the disease has progressed to a more advanced stage. Children and adolescents with disabilities appear to have poorer oral health than their non-disabled counterparts; number of studies has shown that challenges to oral health are more complex for disabled children who are often unable to adequately apply the techniques necessary to control plaque^{1,2}. Hence the present study was designed with the objective to assess the prevalence of dental caries among children with speech and hearing impairment.

Methodology

In the present study 209 children with speech and hearing impairment were selected using a convenient sampling method from schools for speech and hearing impairment. The demographic data regarding name, age and gender were

collected using school records. The dental caries status was assessed using DMFT index (1938). All the children who were willing to participate were included in the study. The examination was carried out on the school campus using ADA type III procedure, using plane mouth mirror and explorer. The children were seated upright with proper headrest on the wall and care was taken not to place the children under direct sunlight. The data was entered in Microsoft Excel and statistical analysis was done using SPSS 18 software.

Results

Among the 209 children examined, there were 130 males and 79 females (Table 1) and there were 68 children in 5 - 12 years age group and 141 children in 13-20 years age group (Table 2).

The mean DMFT of male children was found to be 1.72 (± 1.64) which was lower than female children whose DMFT was 1.06 (± 1.75) (Table 3). Although the difference was not

statistically different (chi square = 0.191, $p > 0.05$) (Graph 1).

The mean DMFT status of 5 - 12 years age group was 0.852 (± 1.34) and slightly higher for 13 - 20 years age group 0.985 (± 1.83) (Table 4). But the difference was not statistically significant (chi square = 0.191, $p > 0.05$) (Graph 2).

Table 1: Gender Wise Distribution of Children

Sl. No	Gender	Frequency
1	Males	130
2	Females	79

Table 2: Age Wise Distribution of Children

Sl. No	Age	Frequency
1	5 - 12	68
2	13 - 20	141

Table 3: Dental Caries status of children according to Gender

Sl. No	Gender	Mean DMFT
1	Males	1.72 (± 1.64)
2	Females	1.06 (± 1.75)

Table 4: Dental Caries status of children according to Age Group

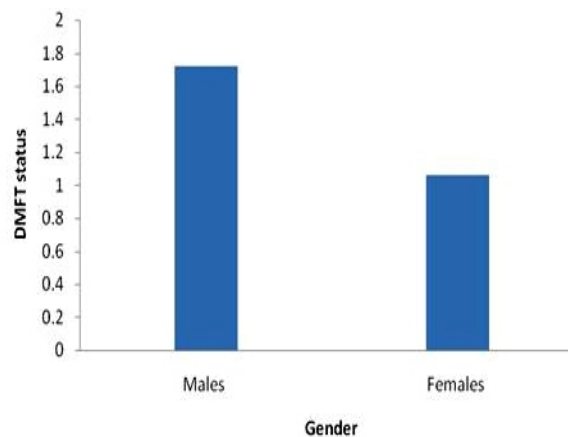
Sl. No	Age	Mean DMFT
1	5 - 12	0.852 (± 1.34)
2	13 - 20	0.985 (± 1.83)

Discussion

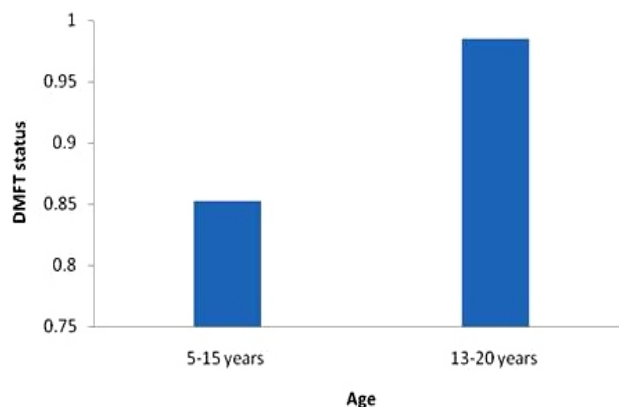
In the present study the mean DMFT of males was found to be higher than females which were in accordance with the study by Alavi et al which reported mean DMFT of 9.64 ± 4.64 in diabetic children and the frequency of decayed teeth were higher in boys than in girls³. But the finding of the present study was not in concordance with Kamatchy KRJ, Joseph J, Krishnan CGA⁴ according to whom the mean DFT was 1.2 ± 1.38 and mean DMFT was 1 ± 1.42 in both deciduous and permanent dentition and females had higher caries prevalence

compared to males.

In the present study the mean DMFT of 13 - 20 years age group was found to be higher than 5 - 12 years age group, which was found to be in accordance with the study by Storhaug K, Holst D⁵ according to whom the relationship



Graph 1: DMFT status by Gender



Graph 2: DMFT status by age

between DMFT and predisposing factors increased with age and the difference between the low and high predisposing factors index values is 2.10 DMFT in the youngest and 3.11 DMFT in the oldest age group. Vignehsa H et al (1991)⁶ also reported that the DMFT increased from 0.73 in the 6-11 year age group to 2.78 in the 12-18 year age group. BA Ajami, M Shabzendedar, YA Rezay and M Asgary¹ also showed the DMFT indices increased markedly with age in all three handicapped groups.

Conclusion

Oral health is an integral part of overall health. It is highly essential to safe guard oral health of all children from

childhood otherwise poor oral health will lead to various dental diseases like dental caries, periodontal diseases which adversely affects the overall health.

Handicapped children no way differ from the normal children. They have got equal rights to live and sustain an economically productive life. But their life style has to be adjusted according to their capabilities. The diseases in general and oral diseases in particular in handicapped are no way different from normal children. This has been documented by various studies. With the principle of equitable distribution of primary health care the dental care should be provided at the door steps of these disadvantaged children.

To summarize the present study the prevalence of dental caries was 1.72 (\pm 1.64) in Males and 1.06 (\pm 1.75) in Females and the mean DMFT was 0.852 (\pm 1.34) for 5 - 12 years age group and 0.985 (\pm 1.83) for 13 - 20 years age group. Although the present study had showed a lower caries prevalence in comparison to WHO global DMFT rate which is less 3, still the oral health of these children has to be monitored in a regular basis with proper oral health education and school dental care programs like fluoride mouth rinses and sealant applications.

References

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