

# Assessment of Periodontal Status of Children with Disabilities

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## ABSTRACT

**Background:** Worldwide, many dental diseases can be seen in mentally retarded patients but periodontal disease is the most widespread. A study was carried out in Hyderabad city of Pakistan to assess the periodontal Status of children with disabilities attending special school in Hyderabad city. **Methods:** A cross-sectional descriptive survey was conducted in 146 children with special disabilities, attending a Special Needs school in Hyderabad City. Periodontal Status was recorded following the WHO basic oral health survey. **Results:** There were significant poorer level of oral hygiene and a greater frequency of periodontal disease in disabled children attending special school compared to normal children. The type of impairment had a significant association with periodontal problems and their need for complicated periodontal treatment was also higher, 32.1% deep pockets. The highest risk factor for periodontal disease seemed to be poor oral hygiene. **Conclusion:** It was concluded that different need for amplification of organized preventive programs for special children.

**Keywords:** Children with disabilities, Periodontal status, Oral health.

## INTRODUCTION

Oral health has been defined as “the standard of wellbeing of the oral and related tissues which enables an individual to eat, speak and socialize without active disease, discomfort and disfigurement and which contributes to general well being” The child with disability defines by American association, a child who cannot perform his or her all physical, mental and social activities for various reasons.<sup>[1]</sup> Oral disease is a major health problem for adults with disabilities.<sup>[2]</sup> who have a higher incident and severity of oral disease when compared to the general population.<sup>[3]</sup> All sign of underprivileged oral health like retention of primary teeth, missing teeth, supernumerary teeth malocclusion high rate of dental caries and periodontal disease more commonly seen in disable children.<sup>[4]</sup> Most of the universities around the world still not mentioned the management of handicapped people on their syllabus and as

compared to normal child literature regarding treatment of handicapped subjects is also limited. Due to different condition verity of disabilities can develop which include mental retardation; seizures, hearing, visual impairment and social intellectual deprivation.<sup>[5]</sup> Parents of disabled children have difficulty in maintain their proper oral hygiene, they have marked pathological lesions high sugar content because of their cariogenic medications, excessive tooth gridding due to their behaviors.<sup>[6]</sup> Hence, as a dentist we have to create an awareness among the mentally challenged society and have to impart and educate the parents of these special children for the maintenance of good oral status and to take proper preventive measures for any oral diseases The purpose of the study was to determine the periodontal status of 146 children attending special school for disabled subjects.

## MATERIALS AND METHODS

Cross sectional descriptive survey was conducted among 146 mentally handicapped subjects; age ranges 7 to 13 years attending special school of GOR in Hyderabad city. The targeted population was all the visually disabled and hearing impaired. Informed consent of parents and school authorities was obtained before including children. Information about the disabling conditions of the

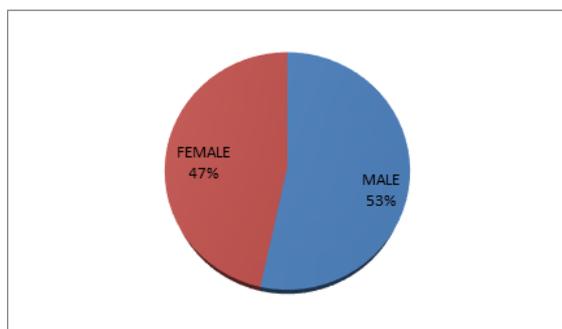
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children and detail of the child's medical history were obtained from medical record of the school. Children who were present at school on the days of the survey were included in the study. Prior to the dental examination, children were made to sit on a comfortable chair in a well illuminated airy room, demographic information was recorded for each subject, Age, gender and education and income of parents. Clinical assessment for Periodontal Status (Community Periodontal Index and Loss of Attachment CPI-LOA) was done by following the WHO basic oral health survey using a WHO probe. SPSS software version 16 was used for statistical analysis.

## RESULTS

There were 150 study subjects out of whom 146 subjects participated in the study, 4 were either absent or were not interested in participating in this study. Girls were 47% and boys were 53 % showing in pie chart.



None of the subject had healthy periodontal status and only 12 subject had the score 4 (Periodontal Pocket More Than 6 mm), 52 (35.6%) had score 2 i.e. Calculus according to CPI & LOA index WHO basic oral health survey 1997 [Table/1]. Abnormal speech, Bitten fingernail was also observed among the subjects as these individuals were more nervous.

**Table: 1 Showing Periodontal Status**

| Periodontal Score               | n=146 | %    |
|---------------------------------|-------|------|
| Score-0 (Healthy)               | 0     | 0    |
| Score-1 (Bleeding)              | 35    | 23.9 |
| Score-2 (Calculus)              | 52    | 35.6 |
| Score-3 (4-5 mm Pocket)         | 47    | 32.1 |
| Score-4 (Pocket more than 6 mm) | 12    | 8.2  |

## DISCUSSION

Most studies assessing oral health status among people with disabilities reported poor periodontal status.<sup>[5,7,8]</sup> Which is in accordance with the findings of this study, in the present study the maximum number of study subjects were reported to have calculus 52 (35.9%) followed by bleeding

35 (23.9%) which is due to improper cleaning of teeth, maximum numbered the subjects didn't used tooth brush to clean their teeth while 32.1% of the subjects were found to have periodontal pocket of 4-5mm. This assorted and changing population experiences similar oral and dental problems, and barriers to oral health as the general population. Whether institutionalized or in the community, they are entitled to the same standards of care as the rest of the community.<sup>[5]</sup> Many dentofacial anomalies were also observed such as high arched palate, malocclusion, delayed eruption of teeth, macroglossia and abnormal TMJ movements all these factors collectively leads to poor periodontal health status. The unmet dental treatment for this group is due in part to the underlying cause of their disability and in part to predisposing and interrelated factors such as poverty, illiteracy, and other social determinants. Improved oral health is likely to lead to improved quality of life for both the individuals with disabilities and their families. The majority of the studies conducted on ID population have provided data regarding the oral hygiene status and periodontal status of assorted disability groups or assessment with normal population. In the literature there are also few studies about periodontal treatment needs of ID individuals.<sup>[9-11]</sup> Several other studies showing alike results regarding periodontal health status, they have also found poor results for periodontal health and oral cleanliness among children with disabilities.<sup>[12-14]</sup>

## CONCLUSION

This study indicated different need for amplification of organized preventive programs for special children. Dentist should therefore be aware of the impact of children with disability and its treatment on oral health, it is important for health professionals to concentrate on preventive program for special children and they provide proper education to the parents of those children, they should receive training to maintain and provide all possible services to this population.

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