ORIGINAL RESEARCH

A Comparative Study of the Oral Hygiene Status amongst the Differently Abled Children in the western part of India

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ABSTRACT

Introduction: Studies performed around the world over a substantial phase of time have revealed that children that are differently abled have an inferior oral health hygiene status in comparison to the normal kids of their age than their nondisabled counterparts. If the oral hygiene status of the differently abled kids is not improved, then it may enhance the risk of developing systemic diseases and complications. Hence, it is extremely vital that the oral health status of the differently abled kids is evaluated and subsequent steps are taken to improve the condition. **Aim:** The core aim of this study was to conduct a comparative study to assess the oral hygiene status amongst the differently abled children in the Western part of India. **Material and Methods:** The study was conducted on 820 children who have been categorized as differently-abled children. 410 children were blind and were named as group A, and the other 410 children were deaf and were named as group B. The oral hygiene status was evaluated using the OHI-S index. **Results:** Group A encompassed 410 differently abled children suffering from blindness. The debris index for group A was 1.51, and the calculus index was 1.03. The oral hygiene index-simplified was 2.54, and it falls under the fair category. Group B encompassed 410 differently abled children suffering from deafness. The debris index for group B was 2.21, and the calculus index was 1.05. The oral hygiene index-simplified was 3.26, and it falls under the poor category. **Conclusion:** It is clear that the differently-abled children are subject to irreplaceable challenges while receiving daily dental care. The current study clearly demonstrated a difference in the oral hygiene status amongst the two different types of disabilities. It is highly imperative that further data is collected regarding the oral hygiene needs and challenges of the differently-abled children and that appropriate steps are taken to design a unique system of oral care.

KEYWORDS: Blind; Deaf; Differently Abled; OHI-S; India

INTRODUCTION

Based on the data procured from the World Health Organization, human beings with any form of physical or mental disability amount to approximately 11% of the population in the developed countries and approximately 13% of the population in the developing countries.[1] Indubitably, oral health serves as an extremely vital aspect of the overall health of the person, especially in growing children. The situation becomes sterner, particularly if the child is differently abled. According to the Association of American Health, any child who, for a variety of reasons, fails to entirely utilize his physical, mental or social abilities is considered to be differently abled.[2] Studies performed around the world over a substantial phase of time have revealed that children that are differently abled have an inferior oral health hygiene status in comparison to the normal kids of their age than their nondisabled counterparts.[3]

Numerous factors could be accountable for the poor oral hygiene status of the differently abled children. Such special children are majorly susceptible due to their inability to comprehend information that the oral health is vital to their general health.[4] Furthermore, less accessible healthcare centers and dental facilities for differently abled children may contribute to their poor oral hygiene status.[5] If the oral hygiene status of the differently abled kids is not improved, then it may enhance the risk of developing systemic diseases and complications. Hence, it is extremely vital that the oral health status of the differently abled kids is evaluated and subsequent steps are taken to improve the condition.

Aim: The core aim of this study was to conduct a comparative study to assess the oral hygiene status amongst the differently abled children in the Western part of India.

MATERIALS AND METHODS

The study was conducted on 820 children who have been categorized as differently-abled children. 410 children were blind and were named as group A, and the other 410 children were deaf and were named as group B. The oral hygiene status was evaluated using the OHI-S index. The children ranged in the age group of 7 years to 15 years,

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and prior consent was taken from the parents and the local school authorities before commencing the study. The study was conducted in numerous local schools, and the examination was carried by a group of dentists with the use of autoclaved mouth mirrors and probes. The oral hygiene status was judged using the OHI-S index. The study commenced after receiving approval from the Ethical Committee.

Inclusion Criteria: A disabled kid in the age group of 7 to 15 years and who displayed the presence of plaque on preliminary examination.

RESULTS

Group A encompassed 410 differently abled children suffering from blindness. The debris index for group A was 1.51, and the calculus index was 1.03. The oral hygiene index-simplified was 2.54, and it falls under the fair category. Group B encompassed 410 differently abled children suffering from deafness. The debris index for group B was 2.21, and the calculus index was 1.05. The oral hygiene index-simplified was 3.26, and it falls under the poor category (Table 1).

Type Of Disability	Number Of Children	Debris Index	Calculus Index	Ohi-S	Score: Good/Fair /Poor
Blindness (GROUP A)	410	1.51	1.03	2.54	FAIR
Deafness (GROUP B)	410	2.21	1.05	3.26	POOR

Table 1

DISCUSSION

Clearly, the oral health care status has been subject to chaos, owing to the dense population of the country. An epidemiological study reveals that around 2.23% of the population of India is disabled, with around 24.57% of them being children. Even though there is a consistent rise in the number of differently-abled children, there has been no substantial measures undertaken to improve the oral hygiene status.

It has been established that amongst other general health needs, oral health care is the least addressed issue amongst the differently-abled children.[6] The most basic explanation for oral health care being the least addressed issue is that most of the primary care physicians and caretakers would be more concerned with the general health needs of the patient. Further, owing to their existing physical and mental condition, the differently-abled group is most susceptible to dental infections, especially periodontal diseases, malocclusion, and dental caries. Along with being the most neglected and the most susceptible group, the biggest issue is the poor accessible oral health services in the country for children with disabilities. In the early 1980's, Penchansky and his associates designated few grave issues linked with the poor oral health status of the differently abled kids. They mentioned that the poor availability of services, poor approachability, poor affordability, and poor accommodation of services were responsible for the current oral hygiene status of the differently abled kids.[7]

In our current study, Group A was comprised of children with blindness and Group B was comprised of children with deafness. We found the debris index for group A at 1.51 and the calculus index at 1.03. The oral hygiene index-simplified (OHI-S) was 2.54, and it was found to be fair. We found the debris index for group B at 2.21 and the calculus index at 1.05. The oral hygiene index-simplified (OHI-S) was 3.26, and it falls under the poor category. Clearly, the children with blindness had better oral hygiene status as compared to the children with deafness. We found that extremely little data is available regarding the oral hygiene needs of the differently-abled kids in the children. While most research studies focused on considering the incidence and prevalence of oral pathological conditions, very little focus was shed on the needs and the accessibility problems.[8] We believe that extensive research over the next few years will shed light on the issue.

CONCLUSION

It is clear that the differently-abled children are subject to irreplaceable challenges while receiving daily dental care. The current study clearly demonstrated a difference in the oral hygiene status amongst the two different types of disabilities. It is highly imperative that further data is collected regarding the oral hygiene needs and challenges of the differently-abled children and that appropriate steps are taken to design a unique system of oral care.

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