

Evaluation of Oral Hygiene in Visually Impaired Individuals of Chennai

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Abstract: Background: Oral hygiene is the most common unmet need of visually impaired individuals. Good oral health is imperative for proper mastication, appearance and speech. Dental caries is the most common chronic oral disease of childhood that interferes with normal nutrition intake, and regular activities because its pain adversely affects the normal food eating. Aim: The aim of the study is to evaluate the oral hygiene in visually impaired people of Chennai. Objective: The objective of this study is to evaluate the oral hygiene level in visually impaired people using a questionnaire. Materials and Method: A questionnaire consisting of 9 questions was used to evaluate the oral hygiene of the visually impaired individuals. The study population consisted of 50 individuals belonging to the age group of 10 – 20 years. The questions were dictated to the individuals and their response was marked. They were clearly explained about the purpose of this study and then the research was conducted. Result: It was observed that 75% of the individuals had poor oral hygiene, 15% of them had a moderate level of hygiene and only 10 % of them had a good oral hygiene. 56% of them brushed their teeth only once a day and 66% of the individuals rarely rinsed their mouth after every meal. It was also observed that 60% of them visited the dentist rarely and 30% of them had never visited the dentist. Conclusion: The present study shows that individuals exhibited suboptimal levels of oral health with majority of them showing high caries prevalence. Thus more care and preventive methods must be administered to disabled individuals in order to improve their oral health status.

Keywords: Oral hygiene, visually impaired, dentist, health, questionnaire

1. Introduction

Oral health is a vital component of overall health, which contributes to each individual's well-being and quality of life by positively affecting physical and mental well-being, appearance, and interpersonal relations. Oral health is an important aspect of health for all children, and is all the more important for children with special health needs. Handicapped person is one "who over an appreciable period is prevented by his/her physical or mental conditions from full participation in the normal activities of their age groups. (1) Disability can affect people's ability to maintain oral health, maintain access to dental care, and accept dental treatment. There are two types of visual disability, namely low vision and absolutely nil vision.(2) Most handicapped individuals start their life with teeth and gums that are as strong and healthy as those of the normal people. However, their diet, eating pattern, medication, physical limitations, lack of cleaning habits and attitudes of parents and health providers, all contribute to poor oral health of the

handicapped.(3) Visually impaired cannot visualize the plaque on the teeth surfaces so even understanding the importance of oral hygiene is difficult for them, which results in the progression of dental caries as well as inflammatory disease of the periodontium. (4) The oral health of visually impaired people can be disadvantaged, since they are not in a position to detect and recognize early oral disease and may be unable to take immediate action unless informed of the situation(5). Because oral hygiene affects one's esthetics and communication, it has strong biological, psychological, and social projections(6). People with disabilities deserve the same opportunities for oral health and hygiene as those who are healthy. Unfortunately, oral health care is one of the greatest unattended health needs of the disabled people. (7) The aim of this study was to identify the problems experienced by a visually impaired population regarding the maintenance of oral health and the need to seek treatment.

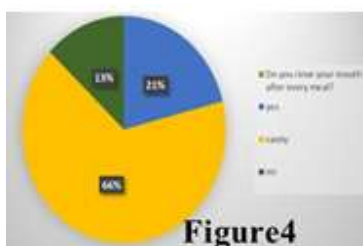


Figure 4



Figure 5



Figure 6

2. Method

A questionnaire consisting of 9 questions was used to evaluate the oral hygiene of the visually impaired

individuals. The study population consisted of 50 individuals belonging to the age group of 10 – 20 years. The questions were dictated to the individuals and their response was marked. Questions regarding how often the individuals

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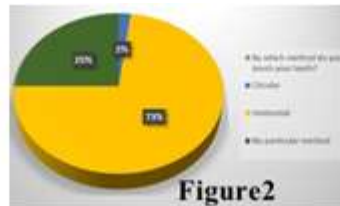
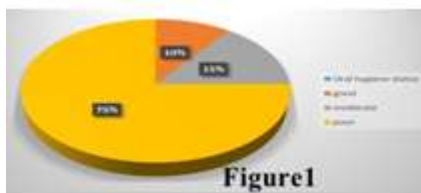
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brush, what they use to brush, how often they rinse their mouth after a meal, which method of brushing they use. Also questions based on their knowledge on oral health, if they have experienced problems like food impaction, hypersensitivity etc were asked. Also a clinical examination to evaluate the oral hygiene status of the individuals was carried out. They were clearly explained about the purpose of this study and then the research was conducted.

3. Result

A total of 50 individuals of the age group 10- 20 years were asked questions regarding oral hygiene and were clinically examined. It was observed that 75% of the individuals had poor oral hygiene, 15% of them had a moderate level of

hygiene and only 10% of them had a good oral hygiene (figure 1). Further more during the interview it was found 65% of the individuals brushed their teeth on their own and the rest were dependent on others. It was also observed that 73% of the people used horizontal brushing method and about 25% of them didn't follow any particular method (figure 2). 56% of them brushed their teeth only once a day (figure 3) and 66% of the individuals rarely rinsed their mouth after every meal (figure 4). 67% of the individuals were not aware that sugar plays a role in causing caries (figure 5). It was also observed that 60% of them visited the dentist rarely and 30% of them had never visited the dentist (figure 6).



4. Discussion

The removal of plaque and debris from the teeth is a skill that can be mastered only when an individual has the dexterity to manipulate the toothbrush and understands the objectives of these activities. (8) The success of good oral hygiene reflects the skill, dedication, and motivation of an individual or those who are responsible for it. (9) Most studies of oral disease prevalence in disabled groups find significantly poor levels of oral hygiene (10- 19), which is confirmed in the present study. Brown and Schodel (11) reviewed 32 studies of disabled children and reported that such patients tend to have poorer oral hygiene than their non-disabled counterparts. Most of these findings highlight the difficulties encountered by disabled individuals in maintaining an adequate level of oral hygiene. The reasons for poor oral hygiene in disabled children have been attributed to low powers of concentration and lack of motor skills (20). Snyder et al (21) pointed out that the lack of manual coordination in disabled children is a factor in the difficulty of their oral hygiene maintenance. Others mentioned that the most obvious challenge is the physical inability to adequately clean the oral cavity (22,23,24). In general, there is a wide range of toothbrushing ability, which is related to coordinated muscular movements, innate skills, ability to understand instructions, and age of the individual (25). In the present study it was found that more than average number of them had poor oral hygiene. Also, they brushed their teeth on their own and sought no help and didn't follow a proper brushing method. It was also observed that these individuals didn't have regular visit to the dentist. Even though the dental profession wants to serve this group, capacity is sometimes restricted because of a lack of knowledge and experience, and a constrained work environment (including restricted financial resource) (26). According to other authors, the main barriers to equal access to dental treatment for individuals with disabilities seems to be inadequate facilities and insufficient time (27), lack of adequate knowledge, and general stress related to

treating this group (28); these are the same barriers as for non-disabled individuals, i.e. costs, fear, and negative attitudes to dentistry (29). Oral health care should be approached jointly with general health care in order to achieve a more holistic view of the individual's physiological and psychological well-being. Both oral health status and disability are related to the patients' social acceptability, it is important for disabled children to have proper oral hygiene (30-34).

5. Conclusion

The present study shows that individuals exhibited suboptimal levels of oral health with majority of them showing high caries prevalence. Thus more care and preventive methods must be administered to disabled individuals in order to improve their oral health status.

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