

Evaluation of DMFT Score in Visually Impaired Adults in Chennai

S. S. Shivanni¹, Dr. Dhanaraj², Dr. Sangeetha³

¹II BDS, Saveetha Dental College and Hospitals, Chennai

²Head of department, Department of prosthodontics, Saveetha Dental College and Hospitals, Chennai.

³Professor, Department of prosthodontics, Saveetha Dental College and Hospitals, Chennai.

Abstract: Background: Oral hygiene is the most common unmet need of visually impaired people. Good oral health is important for proper mastication, appearance and speech. Dental caries is the most common chronic oral disease that interferes with normal nutrition intake, and regular activities because it's pain adversely affects the normal food eating. Aim: To evaluate the DMFT score in visually impaired adults. Objective: The study is done to evaluate the DMFT score in visually impaired individuals aged 30-60 years in Chennai using a questionnaire. Materials and Methods: A proforma was designed and number of decayed filled and missing teeth were recorded. The study population included 50 individuals between the age group of 30 – 60 years. The individuals were explained about the study and were examined. Result: Most of the individuals had a DMFT score more than 5. Majority of the individuals showed the presence of calculus and malocclusion. Conclusion: The study population seems to show an increase in the DMFT index. Poor oral hygiene maybe present due to lack of visualization of the act of brushing. Hence, there is a need for programmes to encourage promotion of oral health.

Keywords: DMFT, visually impaired, dental caries, calculus, malocclusion

1. Introduction

Dental caries is the most common chronic oral disease of childhood that interferes with normal nutrition intake and regular activities. The visually impaired have oral health problems similar to those seen in general population. However, it is necessary to emphasize the importance of oral care for these individuals^[1]. Oral health is linked to good general health and happiness, and there is evidence that esthetically acceptable and functionally adequate dentitions affect self-esteem, confidence, and socialization^[2]. According to the OMS, there are approximately 180 million visually impaired individuals worldwide, 50 million of whom are classified as blind. It was estimated in 2000 that 8 million new cases of blindness will be diagnosed every year^[3]. The provision of oral health care to adults with a visual disability differs in physical access to surgeries, access to information as well as associated disabilities or medical conditions that affect dental care, such as diabetes

mellitus or cardiac disease^[4]. Physical access may be the first barrier to accessing dental care for individuals with a visual impairment. To improve access to dental services simple measures such as keeping passages clear, ensuring areas are well lit, door frames and handles are well defined, having high backed chairs with arms, placing large print signs in areas of danger, and placing handrails by stairs can be used^[5]. Oral health and dental care of the disabled has generally been poorer than the general population^[6].

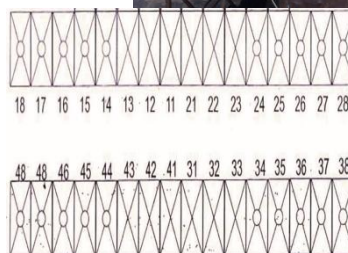
2. Materials and Methods

The cross-sectional study was conducted among visually impaired adults of age 30-60 years. A total of 50 people participated in the study. A self- designed proforma containing the DMFT index was prepared. The individuals DMFT score was examined and calculated. The data was collected, tabulated and statistically analyzed.

PROFORMA

ESTIMATION OF ORAL HYGIENE AMONG VISUALLY CHALLENGED INDIVIDUALS

NAME: _____ DATE: _____
SEX: MALE/FEMALE _____ AGE & DOB: _____
CARIES: PRESENT/ABSENT _____
Decayed teeth: _____ Missed teeth: _____ Filled teeth: _____
DMFT score: _____
Severity of ECC: Mild/moderate/Severe _____



Volume 6 Issue 4, April 2017

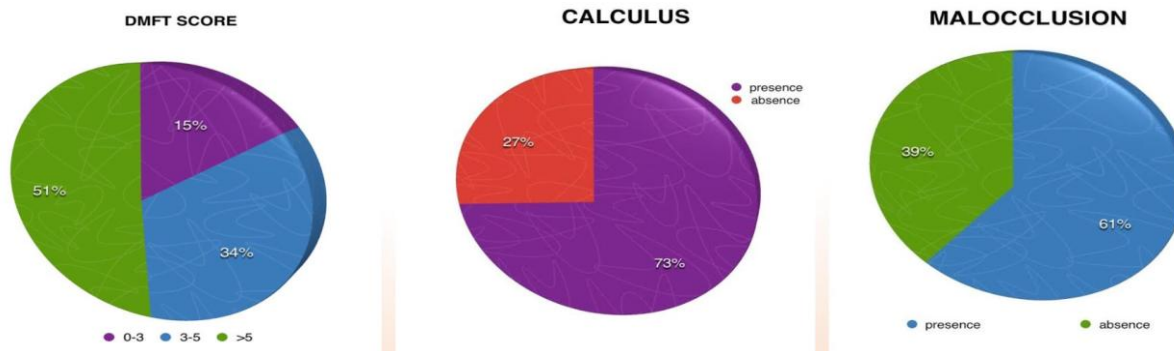
www.ijsr.net

Licensed Under Creative Commons Attribution CC BY

3. Result

The individuals were examined and DMFT score evaluated. It was found that 48% of adults had a DMFT score more

than 5. 61% of the individuals showed the presence of malocclusion and 73% of them had presence of calculus. The data was statistically significant.



4. Discussion

A study by Faulks *et al*, showed that the visual impairment have high caries experience, high percentage of periodontal disease and poor oral hygiene. Oral disease represents a major health problem among individuals with disabilities^[7]. Yalcinkaya *et al*, said that the visually impaired people are at a greater risk to develop caries, since they are unable to see the early signs of caries such as discoloration which indicates the disease process. The difficulty in removing bacterial plaque being the main factor for development of caries, continual motivation to the correct oral hygiene procedures is fundamental in order to keep a good oral hygiene in blind patients^[8]. According to Braga *et al*, The DMFT index exhibited an increase according to age and significant differences ($P < 0.05$) were observed between the age 5-10 group and the age 20-34 and 35-50 groups; DMFT was also higher in males and in smokers^[9]. The study by Dong *et al* found that visual impaired person had low salivary flow rate, might be cause of their visual problems, consistency with previous study reported that light is associated with salivary flow rate. Hyposalivation is a risk factor not only for dental caries and periodontal disease^[10]. According to Patcharaphol *et al*, the oral health status of visual impairment was poor due to high levels of tooth loss, caries experience and prevalence of periodontal pockets^[11]. A study by Beange *et al* shows the prevalence and severity of oral disease among this group are higher when compared to the general population^[12]. In this study it is seen that dental caries, calculus and malocclusion is more prevalent among visually impaired individuals which was similar to the study done by Faulks *et al*.

5. Conclusion

Visually impaired individuals have poor oral hygiene and lack the ability to maintain their oral cavity. Thus, Oral hygiene instruction is important for prevention and treatment of oral conditions in visual impaired patient as it provides basis for good oral health throughout life. These individuals need to be given knowledge about the different methods to maintain proper oral hygiene.

References

- [1] Miliani do Amaral Souza Maciel *et al*, Assessing the oral condition of visually impaired individuals attending the Paraíba Institute of the Blind, *Rev. odonto ciênc.* 2009;24(4):354-360.
- [2] Fiske J, Davis DM, Frances C, Gelbier S. The emotional effects of tooth loss in edentulous people. *BDJ.* 1998;184:90-3.
- [3] Doenças do olho e anexos (H00-H59). In: Organização Mundial 1. da Saúde. CID 10: classificação estatística internacional de doenças e problemas relacionados à saúde. 10. ed. São Paulo: EDUSP, 2004.
- [4] Disability Discrimination Act. London: HMSO, 1995. www.disability.gov.uk.
- [5] Edwards D M, Merry A J, Pealing R. Disability Part 3: Improving access to dental practices in Merseyside. *Br Dent J* 2002; 193: 317-319.
- [6] Vignehsa H, Soh G, Lo GL, Chellappah NK. Dental health of disabled children in Singapore. *Aust Dent J.* 1991;36:151-6.
- [7] Faulks D, Hennequin M. Evaluation of a long-term oral health program by carers of children and adults with intellectual disabilities. *Spec Care Dentist.* 2000;20:199-208.
- [8] Yalcinkaya SE, Atalay T. Improvement of oral hygiene knowledge in a group of visually impaired students. *Oral Health Prev Dent.* 2006;4:243-53.
- [9] Braga SR, Telarolli JR R, Braga AS, Catirse AB. Avaliação das 6. condições e satisfação com as próteses em idosos na região Central do Estado de São Paulo (Brasil). *Rev Odontol UNESP* 2002;31:39-48.
- [10] Dong C, Dawes C. The effects of blindfolding and blindness on the unstimulated and chewing-gum stimulated flow rates of whole saliva. *Archives of Oral Biology.* 1995;40:771-5.
- [11] Patcharaphol Samnieng¹, Pakinai Seehaumpai², Supattra Wichachai², Patcharawan Yusookh², Oral Health Status and Treatment Needs of Visual Impairment in Phitsanuloke, Thailand, *Journal of Dentistry Indonesia* 2014, Vol. 21, No. 2, 63-67 doi:10.14693/jdi.v21i2.224.
- [12] Beange HP. Caring for a vulnerable population: Who will take responsibility for those getting a raw deal from the health care system? *Med J Aust.* 1996;164:159-60.