

Prevalence of Oral Diseases in Rural Area of Punjab, India

Dr Arshnoor Singh Bajaj,¹ Dr Harmandeep Kaur²

^{1,2}Intern, S.G.R.D Institute of Dental Sciences and Research, Amritsar, India

Corresponding Author

Dr Arshnoor Singh Bajaj
Email: arshnoorbajaj@gmail.com

Citation

Bajaj AS, Kaur H. Prevalence of Oral Diseases in Rural Area of Punjab, India. J Kantipur Dent Coll. 2022;3(1):44-5.

ABSTRACT

Oral health plays significant role in general health. The shortage of dental health care providers can lead to reduced utilization and poor oral health. A cross-sectional study was conducted among 300 participants using WHO-Oral Health Assessment Form in two villages of Panjab. The study reported; occurrence of dental caries in 70%, bleeding on probing in 85.6%, presence of periodontal pocket in 67% and loss of attachment in 32.6%. The prevalence of dental diseases is still high in rural areas of Punjab; therefore, creating awareness and improving access to dental services can help to enhance the status of oral health in rural populations.

Keywords: dental caries, periodontal disease, prevalence, rural population

INTRODUCTION

Oral health holds a very important role in the general well-being of a population. Even though health awareness has improved immensely with modern advances still a large population remains devoid of adequate dental services especially in the rural areas of a developing country like India. Poor utilization and inaccessibility of dental services are major challenges which are affecting the enhancement of dental health care in the population. More than fifty percent of populations in India are residing in rural areas however, two-third of dental professionals are serving in urban areas. The shortage of dental health care providers can lead to poor oral health and decreased availability to oral health services. Thus, the objective of this study was to assess the prevalence of carious lesions and periodontal problems in rural populations.

MATERIALS AND METHODS

A cross-sectional study was conducted in the village of Mallunangal and Kathunangal, Punjab, India. A total of 4 dental camps were organized in different rural areas and 300 patients were examined. World Health Organization Oral Health Assessment form were used; Decayed, Missing, Filled teeth (DMFT) index and Community Periodontal Index (CPI) were assessed through oral examination. A team of two professors and ten dental interns participated in the camps and was supervised by the Public Health Dentistry Department of S.G.R.D

Institute of Dental Sciences and Research. Mobile dental van was taken to camp site to provide basic dental services. Data was collected by using assessment form and clinical examination. Descriptive analysis and comparison tables were prepared by using Microsoft Excel-2007.

RESULT

Among 300 participants; 192 were male and 108 were female with the age range of 10 to 60 years. Among them, 30(10%) were below the age of 20 years, 120(40%) in the age group of 21-30 years, 84(28%) in the age group 31-40 years, 96(32%) were above the age of 40 years. The prevalence of dental caries was 210 (70%) in study population. 140 (72.9%) male and 70 (64.8%) female participants showed carious teeth.

Around 90 participants (30%) of the total cases had no caries which depicted good oral health of the people. Among total sample; 72 participants (24%) had DMFT index of 1 as very mild caries, 68 people (22.6%) with 2-3 DMFT index as mild caries, 47 people (15.6%) had DMFT score between 4 to 5 as moderate carious teeth and 23 participants (7.6%) were found to have severe carious teeth with the exposure of dentine and DMFT score of 6 and above (Table 1).

The periodontal examination was done by using CPITN probe. Bleeding on probing was present in 257(85.6%) among the examined sample. Among them 145(48.3%)

Table 1: Extent of dental caries present in the study population

DMFT Score	Caries severity	Number	Percentage
0	No Caries	90	30%
1	Very mild	72	24%
2-3	Mild	68	22.6%
4-5	Moderate	47	15.6%
6 and more	Severe	23	7.6%

Table 2: Periodontal Index in the study population

Periodontal Index	Gender		N(%)
	Male	Female	
Bleeding on probing	145(48.3%)	112(37.3%)	257(85.6%)
Periodontal pocket	103(34.3%)	98(32.6%)	201(67%)
Loss of Attachment	53(17.6%)	45(15%)	98(32.6%)

male and 112 (37.3%) female showed bleeding on probing. 201(67%) participants had periodontal pockets of varying depths. Loss of attachment was present in 98 (32.6%) among the study sample (Table 2).

DISCUSSION

The prevalence of oral diseases are high in the rural areas due to several reasons. Almost all participants were reported to have plaque deposits and were completely unaware of healthy brushing techniques and showed lack of awareness. Rural populations tend to have lower levels of education which can result in lack of understanding of the importance of oral health and proper dental care. Furthermore, rural areas often have limited access to dental services which can result in higher rates of untreated oral problems. Also, dental care resources; such as toothbrush, dental floss and fluoridated tooth paste are usually not readily available in remote areas and can lead to poor oral hygiene practice. A diet with high sugar content, starch

and carbohydrates are common in rural areas which can lead to higher rates of tooth decay. Rural populations also have higher rates of tobacco and alcohol consumption which can contribute to oral health problems such as gum disease and oral cancer. Overall, these can be the possible factors that contribute to a higher prevalence of oral health problems in rural areas, which can have a significant impact on quality of life and overall health. Thus, creating awareness and improving access to dental services can be the solutions to these issues.

CONCLUSION

The prevalence of oral diseases is high in rural areas mostly due to the lack of awareness and proper access to dental services. Therefore, improvement in these particular areas can help enhance the overall status of oral health in rural populations.



SOURCES

1. Baiju RM, Peter E, Varghese N, Sivaram R. Oral Health and Quality of Life: Current Concepts. 2017;11(6).
2. WHO Oral Health Survey. Basic methods.1997; 4th edition.
3. Zimmermann H, Hagenfeld D, Diercke K et al. Pocket depth and bleeding on probing and their associations with dental, lifestyle, socioeconomic and blood variables: a cross-sectional, multicenter feasibility study of the German National Cohort. BMC Oral Health. 2015;15(7).
4. Coelho M. ICDAS and dmft/DMFT. Sensitivity and specificity, the importance of the index used: a systematic review. Journal of Dentistry & Public Health. 2020;7.
5. Mittal N, Singh N, Kumar N. Prevalence of Dental Caries among Smoking and Smokeless Tobacco Users Attending Dental Hospital in Eastern Region of Uttar Pradesh. Indian Journal of Community Medicine.2020;45(2):209-14.
6. Verma S, Gupta N, Sharma S, Gill JS, Khurana A. Correlation between Diet and Dental Health. Review Article.International Journal of Science and Healthcare Research. 2021;262:6(1).
7. Kapoor D, Gill S, Singh A, Kaur I, Kapoor P. Oral hygiene awareness and practice amongst patients visiting the Department of Periodontology at a dental college and hospital in North India. Indian J Dent.2014;5(2):64-8.
8. Attin T, Hornecker E. Tooth brushing and oral health: How frequently and when should tooth brushing be performed. Oral Health Prev Dent. 2005;3(3):135-40