



Oral Health Status And Treatment Needs In Rural Population Of Punjab: Hospital Based Descriptive Cross-Sectional Study

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ABSTRACT

Introduction: Oral health is an integral component of general health. Oral diseases are pandemic in nature and are posing a major setback to the personality and attitude of the human. Therefore, improving the oral health status will lead to better quality of life of the community.

Aim and objectives: To access the pattern of oral diseases among the patients attending the Dental OPD of the hospital and also to make aware of the existing situation and demands for the formulation and implementation of oral health programs for the same population.

Materials and Methods: This descriptive cross sectional hospital based study was carried out among the patients who attended the Dental OPD from 1 January 2017 to 31 December 2017. Data was collected and analyzed.

Results: Out of the total 1464 patients who attended dental OPD, dental caries was found to be most common of all dental diseases with 64.07% of the patients followed by periodontitis with 57.10% of the total patients.

Conclusion: Malwa Region of Punjab needs immense community-based oral disease prevention and health promotion programmes rather than traditional curative care.

KEYWORDS: Oral health status, cross-sectional study, dental OPD

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I. INTRODUCTION

The mouth is the threshold of health and disease. Oral health is considered as an important component of public health, and oral diseases are among the preventable non-communicable diseases. Maintaining good oral health means being free from pain in the oral and facial region; absence of oral sores and lesions; free from periodontal diseases, dental caries, tooth loss, and many other diseases and disorders that affect oral cavity.^[1]

India is predominantly rural, as over 72% of people continue to live in rural areas.^[2] There is a vast difference in health status including the oral health between urban and rural population of India and in other developing countries. As far as the dentist and their availability is concerned, to this huge population, the demand and supply ratio is far inadequate and insufficient. Estimates from global burden of disease demonstrates that oral diseases affects 3.9 billion people and untreated dental caries (tooth decay) is the most prevalent morbid conditions among all diseases.^[3] It is estimated that about 50% of school children are suffering from dental caries and the prevalence in adult population in 35-44 years of age group is 79.2% and 89.2% of the adult population is affected by periodontal disease.^[4] Improving oral health means improving general health and well being of the community and in essence it is improving the quality of life and developing healthy life styles.

Therefore, this study was carried out to access the pattern of oral diseases among the patients attending the Dental OPD of the hospital and also to make aware of the existing situation and demands for the formulation and implementation of oral health programs for the same population.

II. METHODOLOGY

Study design: The study design was a descriptive cross sectional hospital based study.

Study participants: All the patients who attended the Dental OPD of the hospital situated in Malwa region of Punjab were included in the study.

Study period: The time period for the completion of study was 1 year i.e. from 1 January 2017 to 31 December 2017.

Sample size: A total of 1464 patients who attended the dental OPD were included in study.

Data management and statistical analysis: The data was collected and entered in the Microsoft excel for analysis. Since it was a descriptive study no statistical significance tests were applied.

III. RESULTS

The study obtained information from a total of 1464 participants from dental OPD. Following is the narrative of study results.

Table 1 describes the distribution of male and female patients in dental OPD. It describes a slight higher number of male patients with 53.8% than female patients with 46.1% visiting the dental opd for various dental problems. Majority of patients were from age group 37-56 years with 51.9% followed by age group 19-36 years with 24.65%, age group >56 years with 20.01%, age group 0-18 years with 6.4%.

Table 2 describes the various dental conditions seen in dental OPD. Majority of the patients reported were with dental caries with or without pulpal involvement with 64.07% of the total patients. Second most common dental condition was periodontitis and gingivitis with 57.10% and 13.52% respectively of the total patients. It was seen that 9.42% of the total patients presented with various oral mucosal lesion. Impacted third molars were next most common dental problem to be encountered with 6.28% of total patients. And the rest of the dental conditions like edentulous arches, malocclusions, severe childhood caries, TMJ disorders, oral carcinomas, localized osteitis, cystic lesions like ranulas and rare Perrie robin syndrome were found to be 10% of the total patients who visited the dental OPD.

Figure 1 describes the various oral mucosal lesions that were found in the in patients visiting dental OPD. Maximum patients reported with Recurrent Aphthous stomatitis with 46.37%, followed by smoker's palate with 17.39%, then leukoplakia with 15.94%, then lichen planus with 14.49% and burning mouth syndrome with 5.79% of the total patients who presented with oral mucosal lesions.

IV. DISCUSSION

A survey on prevalence and incidence of commonly occurring dental problems and unmet treatment needs is basis for providing health care to society. Therefore, this study was carried out at Dental OPD of the hospital to know the frequently occurring dental problems in the Malwa region of Punjab.

In present study, mostly 51.9% of the patients belonged to 37-56 years of age group, followed by age group 19-36 years (24.65%), age group >56 years (20.01%), while minimum 6.4% number belonged to age group 0-18 years. 53.8% of patients were male while 46.1% were female.

A study by Grewal Y et al conducted in Ferozepur district of Punjab observed that 67.94% of the total population studied was suffering from dental decay which is in consistent with our study in which 64.07% of the total patients who visited the OPD were suffering from dental caries.^[5]

A study by Patro BK et al found that prevalence of dental caries is 82.4% in the 35-44 years age-group and 91.9% in those > or =60 years that is much higher than the results found in our study.^[6] This increased prevalence of dental caries was because the study was limited to selected adult age groups that is 35-44 years of age group and > 60 years of age group.

In another study by Shah N et al conducted in an urban area in the south zone of Delhi and a cluster of four villages in its neighbourhood reported 64.2% had decayed teeth showing results consistent with our study.^[7]

In present study periodontal disease were found to be present in 57.10% of the total patients examined and gingivitis in 13.52% of population which was consistent with the study done by Vandana KL et al in which with increasing age periodontitis increased from 18% to 57.1%.^[8]

However the results in study done by Doifode VV et al in Nagpur were much lower with only 34.8% people were having periodontitis.^[9]

In the same study by Doifode VV et al 7.1% were seen with oral mucosal lesions, the results being similar to our study with 9.2% of the total population with oral mucosal lesions.^[9]

In the study it was found that mostly the patients who were in habit of bidi or cigarette smoking or in habit of chewing any kind of substance such as zarda, gutka or any other, were suffering from leukoplakia and smoker's palate. It was also found that lichen planus and recurrent aphthous stomatitis was mostly present in females and burning mouth syndrome had equal predilection for males and females.

Prevalence of oral carcinoma in our study was 0.4% similar to the study by Doifode VV et al with 0.1% of people with oral carcinoma mostly with people chewing gutka, zarda, etc.^[9]

Malocclusions were found to be 3.07% in consistent with the study done by Garkoti PD et al in which malocclusion was present in 3.01% to total patients.^[10]

TMJ disorders accounts for 1.36%, which mostly included jaw fractures and subluxation of TMJ.

Impacted third molars were found to be present in 6.28% of the total patients which were in consistent with the study by Goryawala SN et al in which the upper and lower impacted third molars were found to be present in 3.8% of total patients.^[11]

Other oro-dental disorders like Early childhood caries (1.91%) edentulous arches(2.73%), atypical neuralgias(1.02%), ranula (0.40%), perrie robin syndrome(0.06%), localized osteitis (0.20%) were found in our study.

V. CONCLUSION

Thus, it can be concluded that dental caries and periodontitis are the most common of all oral problems encountered in dental OPD of this region. These findings will help in giving direction to promote the implementation of oral health programmes at community level in the Malwa region of Punjab.

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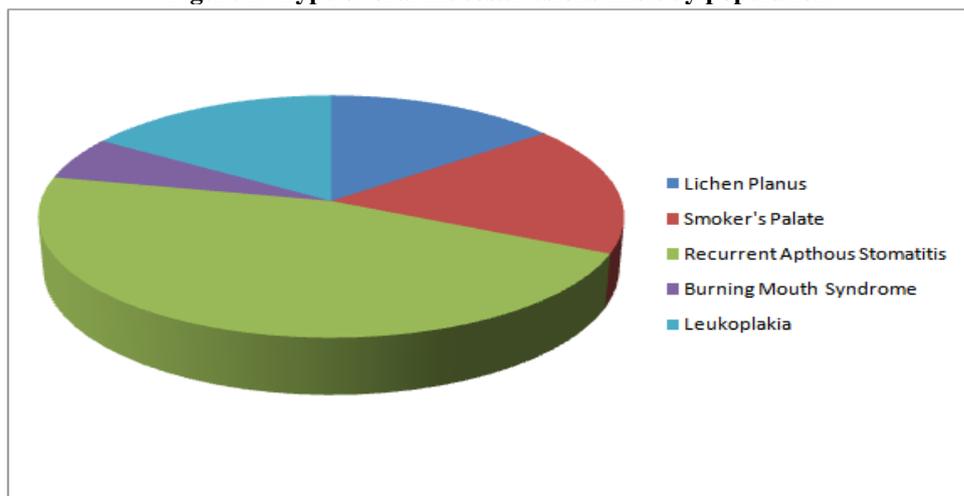
Table 1: Demographic profile of data

Study variable	Number (%)
Gender	
Male	789 (53.8%)
Female	675 (46.1%)
Age group (years)	
0-18	94 (6.4%)
19-36	361 (24.65%)
37-56	761 (51.9%)
>56	293 (20.01%)

Dental condition	Number (%)*
Dental caries(with and without pulpal involvement)	938 (64.07%)
Periodontitis	836 (57.10%)
Gingivitis	198 (13.52%)
Oral mucosal lesions	138 (9.42%)
Malocclusions	45 (3.07)
Edentulous arches	40 (2.73%)
Impacted 3 rd molars	92 (6.28%)
Atypical neuralgias	15 (1.02%)
Severe early childhood caries	28 (1.91%)
TMJ disorders	20 (1.36%)
Localized osteitis	3 (0.20%)
Oral carcinomas	6 (0.40%)
Cystic lesions(ranulas)	6 (0.40%)
Perrie robin syndrome	1 (0.06%)

Table 2: Dental conditions observed in study population

Figure 1: Type of oral mucosal lesions in study population



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