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ORAL HEALTH STATUS OF OUTDOOR PATIENTS OF TERTIARY CARE HOSPITAL IN LUCKNOW

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ABSTRACT

Introduction: WHO recently published a global review of oral health which emphasized that despite great improvements in the oral health of populations in several countries, global problems still persist. This is particularly so among underprivileged groups in both developing and developed countries. The objective of this study was to determine the oral health status of patients attending a tertiary care hospital in District Lucknow.

Material and Methods: This hospital based and cross-sectional design study was carried out in patients attending the outpatient department of Department of Dentistry, Integral Institute of Medical Sciences & Research, Lucknow over a period of six months from February 2019- July 2019. The study was approved by the Institutional Research Committee. Data entry and management were carried out using MS excel spreadsheet. Result was analyzed by calculating descriptive statistics.

Results: One fourth study subjects had periodontal disease. Approximately three fourth of the study subjects were suffering with other problems such as bad breath, tooth decay oral cancer, mouth sores, tooth erosion, tooth sensitivity and toothaches. Majority of subjects belonged to age group 12 years and above. Only 5.26% subjects with periodontal disease belonged to less than 6 years of age.

Conclusions: Comprehensive preventive programs for oral health care are still lacking, and more dental health education is needed to improve oral health standards among Indian population.

Keywords: Periodontal Disease, incidence, oral health

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INTRODUCTION

Individuals with special health care needs have been reported in literature to have poorer oral hygiene and periodontal status, more untreated caries and fewer remaining teeth.¹⁻³ They are those who have physical, mental, sensory, behavioral, cognitive, emotional and chronic medical conditions which require health care away from that considered routine, and which involves specialized information, increased awareness, attention and accommodation.⁴ Their oral health situation may be influenced by age, severity of destruction and living conditions. Individuals with special needs may have great restrictions in oral hygiene performance due to their likely motor, sensory and intellectual

disabilities.⁵⁻⁷ and so are prone to poor oral health. This group of individuals may also not appreciate and assume accountability for or cooperate with preventive oral health practices.⁸ Those who are very young, those with severe impairments, and those living in institutions are dependent on parents, siblings or caregivers for general care including oral hygiene. Many care givers do not have the necessary knowledge or values to recognize the significance of oral hygiene and do not themselves practice appropriate oral hygiene or choose a proper diet.⁹ They may be more vulnerable to dental caries if they reside at home and are pampered with cariogenic snacks and other unhealthy eating habits. Studies on select populations show that children

with special health care needs have both additional dental problems and more untreated dental disease relative to other children.^{10,11} Poor oral health conditions have also been linked to low socioeconomic status. Poor and nearly poor children with unusual health care needs and those with greater restrictions attributable to disability were more likely to have unmet dental care needs.¹² Previous studies on this group of individuals in our environment show that they had high unmet needs, especially periodontal treatment needs.¹³⁻¹⁵ This study was carried out to determine the oral health status of patients attending a tertiary care hospital in District Lucknow.

MATERIAL AND METHODS

This cross-sectional study was done in the department of Dentistry, Integral Institute of Medical Sciences and Research, Lucknow. The study was carried out in 3743 study subjects attending the outpatient department over a period of six months from February 2019- July 2019.

Data Collection

Simple random sampling technique was used for selecting study subjects. After establishing the rapport with the respondents, the schedule was administered in Hindi after taking their consent.

A pre-designed pre-tested structured questionnaire was administered to the subjects through personal interview by the researcher. The respondents were interviewed personally by the investigator to get first-hand information as well as the real picture of their oral health status through direct observation.

All subjects were explained about the study. Medical terms used in the questionnaire related to causes, signs, and symptoms of periodontal diseases were also explained. Once completed, each questionnaire was double-checked to make sure that all the items were answered and study subjects were requested to complete any missing data. The data were processed by the computer after auditing, reviewing, and coding the completed questionnaires for data processing and analysis.

Ethical consideration

The study was approved by the Institutional Research Committee & the Institutional Ethics Committee.

Statistical Analysis

Data entry and management were carried out using MS excel spreadsheet and software. A result was analyzed by calculating descriptive statistics. Data were presented in number and percentage.

RESULTS

The study comprised of 3743 study subjects attending the Outpatient department of Dentistry, Integral Institute of Medical Sciences and Research, Lucknow.

Table 1: Incidence of periodontal and other dental diseases according to gender

Disease	Male		Female	
	No.	%	No.	%
Periodontal	429	23.74	481	24.85
Others	1378	76.26	1455	75.15
Total	1807	100.00	1936	100.00

Table 1 illustrates that the frequency distribution of study subjects with respect to periodontal and other dental diseases. Out of total of 3743 study subjects, 1936 were females and 1807 were males. In females, 24.85% were having periodontal disease and rest had other diseases. On the other hand, 23.74% males were suffering with periodontal disease. Percentage of periodontal disease was high among females as compared to males.

Table 2: Incidence of periodontal and other dental diseases according to age

Disease	< 6 years		6 - <12 years		≥12 years	
	No.	%	No.	%	No.	%
Periodontal	2	5.26	8	4.76	900	25.45
Others	36	94.74	160	95.24	2637	74.55
Total	38	100.00	168	100.00	3537	100.00

Table 2 shows the age wise distribution of incidence of periodontal and other dental diseases. Majority of study subjects were belonging to age group equal to or above 12 years. In this group 25.48% of study subjects had periodontal disease. In age group 6 to less than 12 years, only 4.76% had periodontal disease. Only 5.26% study subjects who belonged to less than 6 years had periodontal disease. (Table 2)

Table 3: Month wise distribution of incidence of periodontal disease

Months	Incidence (No.)	%
February	160	17.58
March	207	22.75
April	170	18.68
May	110	12.09
June	92	10.11
July	171	18.79
Total	910	100.00

Table 3 shows monthly distribution of incidence of periodontal diseases, Incidence was highest in the month of March i.e., 22.75%. Followed by July i.e., 18.79%. Incidence of periodontal diseases in April and February were 18.68% and 17.58% respectively. June showed the minimum percentage of incidence (10.11%). In the month of May there was 12.09% of incidence of periodontal disease. From the above table, we observed that there were monthly variations in the incidence of periodontal diseases. (table 3)

Table 4: Overall distribution of Incidence of periodontal and other dental diseases

Disease	Incidence (No.)	%
Periodontal	910	24.31
Others	2833	75.69
Total	3743	100.00

Out of total 3743 study subjects, approximately one fourth study subjects had periodontal disease. Approximately three fourth of the study subjects were suffering with other diseases such as bad breath, tooth decay, oral cancer, mouth sores, tooth erosion, tooth sensitivity and toothaches. (table 4)

DISCUSSION

The aim of this study was to compare the oral health status of patients attending a tertiary care hospital in District Lucknow. The main cause of periodontal disease is bacterial plaque although many other factors such as hormonal changes, diabetes, poor nutrition, smoking, and stress may affect the initiation and progression of gingival and periodontal diseases.¹⁶ The development of the common periodontal diseases depends mainly on

human behaviour, and the control of these diseases is greatly supported by the fact that the etiological factors are well documented.¹⁷ Lack of both parents and children oral health education might also explain the findings of this study. Poor oral health knowledge among the participants in this study coincided with findings from the previous studies that reported lack of acceptable levels of knowledge and awareness of periodontal problems among adults.^{18,19} Percentage of periodontal disease was high in females as compared to male study subjects in this study. In contrast to present study, Aggnur et al reported that majority of the subjects were males (82.1%) suffering with oral and dental health problem.²⁰ In the present study, majority of subjects belonged to age group 12 years or above. In this group 25.48% of study subjects had periodontal disease. Only 5.26% study subjects who had periodontal disease were aged less than 6 years. In the National Oral Health Survey aided by Dental Council of India, New Delhi. three-stage sampling design was adopted to select 210 rural and 110 urban subjects in each of the age groups, viz. 5, 12, 15, 35-44, 65-74 years, from each homogeneous region comprising of a number of districts of each state. The prevalence reported was 57%, 67.7%, 89.6% and 79.9% in the age groups 12, 15, 35-44 and 65-74 years, respectively.²¹ In addition, Taani showed that 25% of adults suffered bleeding gums on brushing and around the same percentage suffered bad breath. Nearly 40% of adults believed that they had periodontal disease.¹⁸ WHO Global Oral Health Data Bank²² indicates that symptoms of periodontal disease are highly prevalent among adults in all regions. Furthermore, most children and adolescents worldwide have signs of gingivitis. Aggressive periodontitis, a severe periodontal condition affecting individuals during puberty and which may lead to premature tooth loss, affects about 2% of youth.²³ In present study, approximately one fourth study subjects had periodontal disease while approximately three fourth of the study subjects were suffering with other diseases such as bad breath, tooth decay oral cancer, mouth sores, tooth erosion, tooth sensitivity, toothaches. Furthermore, over the past years, savings in dental expenditures have been noted in industrialized countries which have invested in

preventive oral care and where positive trends have been observed in terms of reduction in the prevalence of oral disease.^{24,25} In most developing countries, investment in oral health care is low. In these countries, resources are primarily allocated to emergency oral care and pain relief; if treatment were available, the costs of dental caries in children alone would exceed the total health care budget for children.²⁶

CONCLUSION

Globally, the maximum load of oral diseases is among the unfortunate and poor population groups. The current trend of oral disease reflects distinct risk profiles across countries related to living conditions, environmental factors and lifestyles, and the implementation of preventive oral health schemes. Comprehensive preventive programs for oral health care are still absent, and more dental health education is needed to improve oral health standards among Indian population.

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