

To Study Oral Diseases In Gursahaiganj Of District Kannauj Uttar Pradesh

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Abstract

Introduction: Oral diseases are prevalent in general population worldwide. Most of them can be attributed to local factors, a majority of oral diseases occur due to a combination of both local and systemic factors.

Aim: The aim of the study was to evaluate the prevalence of oral diseases and habits in Gursahaiganj of district Kannauj.

Materials and Methods: The study was conducted in Gursahaiganj village of district Kannauj under the banner of Healthy Affordable Solutions Nationally for Aam Aadmi (HASNAA) from January 2024 to June 2024 in which population from two villages was included. Total numbers of people examined were 628 in which 434 were males and 194 were females respectively. Age range was between 10 -70 years. Dentition was also studied for decayed, filled and missing teeth. Habits were also included in the given study.

Result: The overall prevalence of dental caries was 98%. Periodontitis was seen in 92% of the population. The most prevalent habit was gutka chewing.

Conclusion: Oral diseases may impede the oral health dependent quality of life. There was a dire need of awareness regarding the importance of good tooth brushing habits and regular dental visits.

Keywords: Oral health, Caries, Periodontitis, Prevention.

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I. Introduction:

Oral health is an integral part of health and exerts significant effects on individuals, communities and the society. For long, oral health is recognized to be an essential component of overall health and well-being. Currently, oral diseases affect an estimated 3.5 billion people globally and untreated dental caries is one of the most prevalent non-communicable diseases. The economic burden of oral diseases is considerable. From the 2010 Global Burden of Disease Study, the global economic burden of dental diseases amounted to \$442 billion yearly, of which \$298 billion (4.6% of global health expenditure) was attributed to direct treatment costs and \$144 billion to indirect costs in terms of productivity losses due to caries, periodontitis, and tooth loss.¹ The personal consequences of chronic untreated oral diseases are often severe and can include unremitting pain, sepsis, reduced quality of life, lost school days, disruption to family life, and decreased work productivity. The costs of treating oral diseases impose large economic burdens to families and health-care systems. In low-income and middle-income countries the limitations of so-called westernised dentistry are at their most acute; dentistry is often unavailable, unaffordable, and inappropriate for the majority of these populations, but particularly the rural poor. Rather than being isolated and separated from the mainstream health-care system, dentistry needs to be more integrated, in particular with primary care services. The global drive for universal health coverage provides an ideal opportunity for this integration. Dental care systems should focus more on promoting and maintaining oral health and achieving greater oral health equity².

II. Materials & Methods

The study was conducted in Gursahaiganj village of district Kannauj under the banner of Healthy Affordable Solutions Nationally for Aam Aadmi (HASNAA) from January 2024 to June 2024 in which population from two villages was included. Total numbers of people examined in the rural dental clinics were 628 in which 434 were males and 194 were females respectively. Participation in the study was voluntary and no incentives were provided to the participants. Age range was between 10 -70 years. The patient proforma contained information such as name, age, sex, occupation, chief complaint, past medical and dental history, family history and personal habits (oral hygiene habits and oral habits). The patients were examined by a dental surgeon. On intra oral examination, presence of any intra-oral lesion was recorded. Dentition was also studied for decayed, filled and missing teeth. Tooth brushing habits were also included in the given study. Demographic

data was collected from the patient and a thorough intra-oral and extra oral examination was conducted by a trained dental surgeon.

III. Results

Dental caries was the most prevalent disease seen in 98% of the population in which 72% were males and 26% were females. Gingivitis was seen in 96% of cases in which 76% were males and 20 % were females. Periodontitis was prevalent in 92% of examined patients where 74% were males and 18% were females. Pyorrhoea was seen in 91% of cases in which 61% were males and 30% were females. Oral submucous fibrosis was evident in 29% of the people examined where majority were males 26% and only 3% were females. Impacted tooth were seen in 9% of cases where 8% were males and only 1% female. Incidence of Broken, fractures, discolored and mobile teeth was 21% (females 4% and males 17%), 16% (females 2% and males 14%), 87% (females 9% and males 78%) and 83% (females 7% and males 76%) respectively. Swollen gums were prevalent in 84% of population in which 62% were males and 22% were females. Completely edentulous was 2% with equal gender. Partially edentulous was 89% where 73% were males and 16% were females. Spacing between teeth and food accumulation was seen in 42% (females 5% and males 37%) and 96% (females 27% and 69% males) of the people examined. Unesthetic smile was seen in 97% of the population with 82% males and 15% females. Habits were also noted in the present study. 23% males paan with tobacco, 43% khaini (39% males and 4% females), 49% bidi (42% males and 7% females). 84% gutka (72% males and 12% females) and cigarette smoking was seen in 8% males.

**Healthy Affordable Solutions Nationally for AamAadmi (HASNAA)
Rural Dental Clinics of india, Gursahaiganj District Kannauj, Uttar Pradesh,India**
Total No. of patients Examined: **628**, Male: 434 ; Female: 194

S.No.	Dental Problem/Habits	Male	female	Male %	Female %	Prevalence rate % Occurrence
1.	Caries	425	50	72	26	98%
2.	Gingivitis	330	40	76	20	96%
3.	Broken tooth	74	8	17	4	21%
4.	Fractured tooth	61	4	14	2	16%
5.	Discolored tooth	339	17	78	9	87%
6.	Mobile /Loose Tooth	330	13	76	7	83%
7.	Periodontitis	321	35	74	18	92%
8.	Pyorrhoea	265	58	61	30	91%
9.	Impacted Tooth	35	2	8	1	09%
10.	Oral Sub Mucous Fibrosis	113	6	26	3	29%
11.	Required Root Canal Treatment	273	31	63	16	79%
12.	Swollen Gums	269	43	62	22	84%
13.	Food Accumulation	299	52	69	27	96%
14.	Spacing in between teeth	161	10	37	5	42%
15.	Completely Edentulous	4	2	1	1	02%
16.	Partial Edentulous	317	31	73	16	89%
17.	Paan with tobacco	100	0	23	0	23%
18.	Khaini	169	8	39	4	43%
19.	Bidi	182	14	42	7	49%
20.	Gutkha	312	23	72	12	84%
21.	Cigarette	35	0	8	0	8%
22.	Unesthetic Smile	356	29	82	15	97%

IV. Discussion

The majority of studies on dental caries in the Indian population reported an increased prevalence of dental caries among males as seen in our study. The causes cited include factors such as lack of education, poor oral hygiene, frequent in between snacking, and low socioeconomic status. Social factors can include male child getting more healthcare attention and nutritious food, the custom of fasting among Hindu women, and the false belief that limitation of one's diet during the time of pregnancy can result in a less problematic birth can definitely lead to dietary imbalances, which can eventually result in caries formation in females.³

Peridontitis and gingivitis was seen in 92% and 96% of the population in the present study. The Indian data agreed with the world data, where the severity of periodontitis was found to be higher in males than females. These diseases are associated with specific pathogenic bacteria which colonize the subgingival area. At least two of these microorganisms, *Porphyromonas gingivalis* and *Actinobacillus actinomycetemcomitans*, also invade the periodontal tissue and are virulent organisms. Initiation and progression of periodontal infections are clearly modified by local and systemic conditions called risk factors. Behavioral factors like tobacco chewing and smoking, poor maintenance of oral hygiene, and socioeconomic status are risk factors predisposing the males to higher odds of developing severe periodontal disease than females. There are gingival inflammatory

conditions found in females which are related to hormonal conditions, such as pregnancy gingivitis that can explain higher prevalence of gingivitis in women.^{4,5}

Tooth loss remains a significant deterrent to oral health and adversely affects the dietary intake and nutritional status of individuals compromising their general health. It is a debilitating and irreversible condition and is considered as the “final marker of disease burden for oral health. The determination of the specific causes of tooth loss as examined by the previous studies shows tooth loss is an eventual complication of the two most common dental diseases namely dental caries and periodontal disease. Greater tooth mortality was seen in males in previous studies which indicates the burden of the prosthetic needs.⁶

The associations of malocclusion traits with oral health related quality of life differed between genders, with women reporting more impacts which is not consistent with our study. Malocclusion not only compromises maintaining better hygiene and also the health of investing tissue, but can also lead to behavioral (psychological) and social problems. Deviations from normal occlusion were generally found to have a negative impact on Oral health related quality of life, but most of the adults with malocclusion seem to adapt to their condition. Nature is infinite in variety. The occlusal relationship and spacing in deciduous dentition is known to have a vital bearing on the setting up of the normal occlusal relationship in permanent dentition. The presence of spacing or crowding and occlusion in the primary dentition and its relation to the development of malocclusion has been the long subject of discussion.^{7,8}

Areca nut is chewed by approximately 600 million people worldwide, and is the fourth most common psychoactive substance used globally. Areca nut chewing, by itself or in combination with scents, condiments or sweeteners is an accepted practice in parts of the Western Pacific and many South and South East Asian countries. Tobacco use is the single most preventable cause of disease, disability, and death worldwide. Tobacco kills one human being every six seconds. That works out to 560 people every hour, 13,440 people per day and 49 lakh people per annum. Tobacco kills 15 times as many people as suicides, murder or manslaughter.⁹

Gutka is a preparation of crushed tobacco, areca nut, lime, catechu and flavoring agent. Media or electronic advertisements and too much marketing of gutka in small eye catching and low cost sachets have greatly enhanced the sales of these products. Pan, paan masala, khaini, sarda, mawa, gutka, mishri, and gudakhu, are used in chewing, snuffing, and applying to the teeth and gums. Products used substantially in India are khaini (tobacco-lime mixture), used by more than ten percent of the smoking population, gutka (a mixture of tobacco, lime, and areca nut), used by nearly seven percent, betel quid with tobacco, used by six percent, and mishri, gul, and gudakhu, used by nearly four percent for oral application.¹⁰

In the present study, gutka chewing habit was most prevalent followed by bidi, khaini, paan, tobacco chewing and smoking. Males were consuming more as compare to females.

V. Conclusion

Our study cannot be generalized over other blocks/districts, as there are differences in culture, lifestyle, health and hygiene practices and geographical variations. Healthcare seeking behaviour among the rural population towards oral diseases was poor. Poor attitudes of people on the importance and awareness of oral health are quite evident, and efforts must be made to bring a change in this scenario. There still is a need for awareness among the population. People should be told about the importance of primary prevention. To increase awareness campaigns should be conducted. Many people do not seek dental treatment due to financial issues, transportation problems, fear, and the distance to clinics. The services should be provided on the basis of felt needs of the rural population so that utilization of dental services can be increased, thereby improving the oral health status of the underprivileged population. So, efforts must be made to bring a change in this scenario and to make the rural population aware of the dental problems.

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