INTERNATIONAL JOURNAL OF ADVANCE RESEARCH, IDEAS AND INNOVATIONS IN TECHNOLOGY

ISSN: 2454-132X
Impact Factor: 6.078
(Volume 11, Issue 1 - V11I1-1363)
Available online at: https://www.ijariit.com

Prevalence of Oral Diseases in the Tribal Population of Badagas in Nilgiris District – A Cross-Sectional Study

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ABSTRACT

Oral health is a crucial aspect of overall well-being, yet many tribal communities in India, including the Badagas of Nilgiris District, face significant challenges in maintaining it. This cross-sectional study aimed to assess the prevalence of oral diseases among the Badaga tribal population. Conducted in October 2023, the study surveyed 45 participants from Edapalli and Beratti using a structured questionnaire covering demographic details, lifestyle habits, oral hygiene practices, medical history, and substance use.

The findings revealed a high prevalence of systemic diseases, with hypertension (31%) and diabetes (28%) being the most common. Oral hygiene practices were generally good, with all participants using toothbrushes and toothpaste, though only 20% brushed twice daily. Diet predominantly consisted of non-vegetarian food (82.2%), with high carbohydrate intake. Alcohol consumption was notably high (60%), whereas tobacco use remained relatively low (17%). The study also highlighted a significant prevalence of dental caries, root stumps (31%), and grossly decayed teeth (17%), pointing to inadequate awareness of oral health.

These findings emphasize the need for targeted oral health education and improved access to dental care among the Badagas. Community-based interventions, culturally sensitive awareness programs, and better healthcare infrastructure are essential to address the high burden of oral diseases in this tribal population.

Keywords: *Public Health, Oral Health, Dental, Community Health, Tribal Population*

INTRODUCTION

Oral health is a vital component of overall health and is much more than just healthy teeth. It is a functional, structural, aesthetic, physiologic and psychological state of well being and is essential to an individual's general health and quality of life.[1]

India has many communities which are backward in terms of social, economic, political and educational considerations. Tribal community is one such community. [2] When India gained its political independence in 1947,two India's was mentioned the one, under the direct British administration and the other, under the princely states. A third of India, which was ignored and remained, unrecognized at the time, was 'Tribal India' living in forests, cut off from the mainstream of social life of this country. The independence have not somehow been tasted by this neglected society, which is spread over hills, valleys and plains .[3] In 1950, the number of tribal communities was 212. This number has increased since then and currently there are 573 communities, which constitute eight percent of the nation's total population.[4] The Badagas number an estimated 145,000 (1991), about 19 percent of the district population of 630,169 (as of 1981). Progressive attitudes have made the Badagas an unusually successful farming community. Population figures from the official censuses bear out this success: in 1812 there were reportedly only 2,207 Badagas; by 1901 there were 34,178 , today, about 145,000.

The indigenous people of the study area are called Badagas. They are found in the hilly regions of Niligiris. The Badagas live in nearly 400 villages called Hattis. They speak language called Badaga. By developing intensive cash-crop cultivation they have managed to accommodate this greatly increased labor force and improve their standard of living.

Because of the failure to tackle social and material determinants and to incorporate oral health into general health promotion, millions suffer from untraceable tooth ache and poor quality of life and end up with few teeth. [5]

AIM AND OBJECTIVE

To study the prevalence of Oral Diseases in the Tribal Population of Badagas In Nilgiris District.

METHODOLOGY

The study was conducted in the tribal hamlets in and around Edapalli and Beratti (Tamil Nadu) of Western Ghats .The study was conducted in areas belonging to various tribal communities, whose life is woven around forest ecology and forest resources.All tribal subjects aged 10 years and above of both gender who attended the camp in the selected village were screened. Prior to the start of the survey, permission was obtained from the president of the village panchayat and the Village Administrative Officer. Consent was obtained from all the participants.

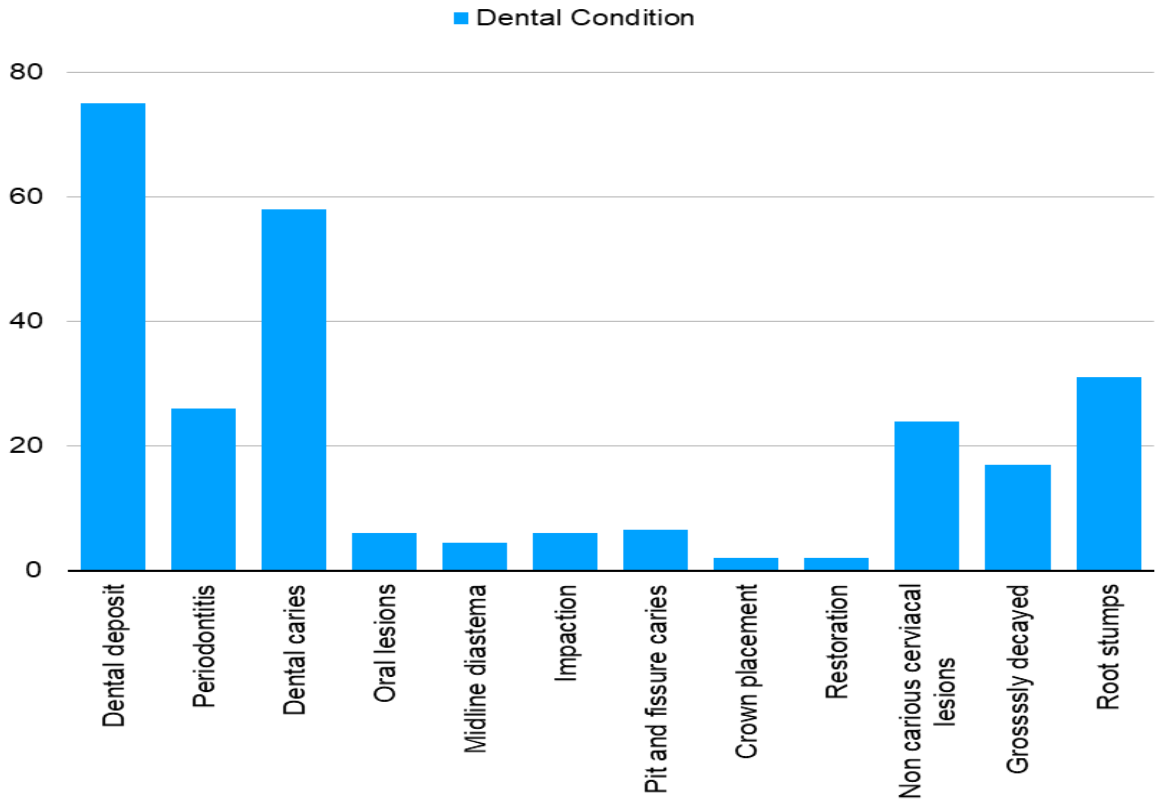
A Cross sectional study was conducted in the month of October 2023 among 45 tribal people (badugas) of Nilgiris district.The data collection was done using the google forms . The questionnaire include demographic details such as name, age, gender.Questions include regarding their lifestyle such as diet, junk food consumption , sleeping pattern . Usage of tooth brush or any other dental aids , any natural materials used for brushing, their age of onset , frequency and duration of brushing. Questions also include about their medical history , type of medication , dental history . Parafunctional habits, source of drinking water . Regarding their personal history , questions include number, frequency , duration , age of onset and taboo of tobacco and alcohol consumption.

RESULTS

From the above study ,the oral manifestations are listed below. Among the participants 40% were males and 60% were females .Most commonly found systemic diseases were Diabetes 28%, Hypertension 31%,Renal stones 22% and other diseases. Non-veg was the predominant choice of diet with 82.2% consumers and only 17.8% vegetarians in which rice was consumed in most of the meals. Parafunctional habits included Nail biting with 44% participants and tongue thrusting with 8% participants and lip biting with 4% participants. Oral hygiene aids like toothbrush use was very common with all the participants using it with variation like hard 6% and medium 94% bristles. Toothpaste was another commonly used oral hygiene aid with 95.6% users and toothpowder was still being used by 4.4% participants with majority of people starting toothbrushing by the age of 2 years old. Most people brush once daily 80% and 20% brush twice daily with average brushing time of 2-4 minutes. Among the study subjects 97.8% use Allopathic medicines and 2.2% use Ayurvedic medicines. Among the participants, 53% used Municipal water and 46% used Ground water. Alcohol consumption was common with 60% of participants regularly consuming it but had no cultural background for supporting the huge numbers. Tobacco consumption was comparatively less with 17% participants consuming it mostly in the form of bidi 25% and cigarettes 75% and smokeless form of tobacco was uncommon

DISCUSSION

The Badagas are an indigenous tribe residing in the Nilgiris District of Tamil Nadu, India. Their distinct culture, traditions, and way of life make them unique, but unfortunately, they also face several health challenges, including oral diseases.



Poor oral health not only affects their ability to eat, speak, and socialize but also impacts their overall quality of life.Prevalence of Oral Diseases in the Tribal Population of Badagas In Nilgiris District Oral health is a vital component of overall health and is much more than just healthy teeth. One of the primary oral diseases prevalent among the Badagas is dental caries, more commonly known as tooth decay. The study has a sample size of people aged between 20 and 65.The majority of whom were females.The most common systemic disease were hypertension and diabetes mellitus.majority of the population diet are non-vegetarian.They consume rice , organ meat, meat and egg and less fish. Their food has more carbohydrate content than the protein intake,It may be the cause of dental caries. Junk food intake was comparatively low possibly due to the fact that they remotely located from the major towns. The sleeping schedule ranges from 8 to 12 hours, which is significantly longer than the metropolitan lifestyle.The most frequent dental aids used are tooth paste and a toothbrush. Brushing is mostly done once a day for about 3-5 minutes, Home remedies for tooth discomfort include asafoetida and salt water were regularly practiced . Alcohol usage is comparatively increased and the age of onset is most likely above the age of 18.It has been observed that it is not in a cultural practice . Tobacco consumption is low in this population , Janakiram et al. reported that (73.8%) tribal populations of Kerala were addicted to tobacco in one form or the other, which is comparatively more than the present study (17%)This could be attributed to a higher proportion of females and children.According to the findings, tobacco consumption is also on the rise.In comparison, the prevalence of dental caries among tribals was reported to be 7.5% in a study conducted by Kadanakuppe et al. [6]The study population included people aged 10 and up.Additionally, the lack of oral health education and awareness programs within the tribal community adds to the burden of oral diseases. Many Badagas are unaware of proper oral hygiene practices and the importance of regular dental check-ups. This lack of knowledge, coupled with cultural beliefs and practices, perpetuates the cycle of poor oral health within the population, root stumps account for 31% of oral manifestations, while grossly decayed accounts for 17%. This led to the conclusion that people are unaware of dental caries ,root stumps were highly prevalent.The high prevalence of dental caries in the tribal population can be attributed to several factors, including inadequate access to oral healthcare services, limited knowledge about proper oral hygiene practices, and a diet high in sugary and acidic foods . People have very little oral awareness. There were very few restored teeth, which resulted in very little oral health awareness.Another significant oral disease prevalent among the Badagas is periodontal disease. Poor oral hygiene, smoking, and systemic health conditions such as diabetes are known risk factors for periodontal disease. On the other hand, implants and single unit FPDs were discovered in three people, implying that there is a mix of people who are aware and those who are not aware. Oral health education and awareness campaigns should be conducted within the tribal community to promote good oral hygiene practices and encourage regular dental check-ups. These campaigns should be customized to address the specific cultural beliefs and practices of the Badagas to ensure maximum engagement and understanding.Collaboration between healthcare providers, non-governmental organizations, and the tribal community is crucial in addressing the prevalence of oral diseases in this population. By working together, interventions can be designed and implemented to target the underlying causes of oral diseases and improve the oral health outcomes of the Badagas. In conclusion, the tribal population of Badagas in Nilgiris District faces a high prevalence of oral diseases, which significantly impact their overall health and well-being.

Factors such as limited access to oral healthcare services, lack of oral health education, and cultural beliefs contribute to this problem. To address this issue, a comprehensive approach involving improved oral healthcare infrastructure, targeted education programs, and collaborative efforts is required. By prioritizing oral health in the tribal population, we can improve their quality of life and reduce the burden of oral diseases.

REFERENCES

[1] Yewe-Dyer M. The definition of oral health. Br Dent J. 1993;174:224–5.
[2] Scheduled Castes and Scheduled Tribes Research and Training Institute. The Tribes of Odisha. [[cited 2020 October 12]]. https://www.niti.gov.in/ & https://catalogue.nla.gov.au/Record/855813 .
[4] http://www.womenstudies.in/elib/tribals/tr_health_status.pdf .
[5] Kumar TS, et al. Int Dent J . 2009;59:133.[6]Kumar S, Dagli R, Mathur A, Jain M, Balasubramanyam G, Prabu D, et al. Oral health status and practices of dentate Bhil adult tribes of Southern Rajasthan, India. Int Dent J. 2009;59:133–40.
[6] Kadanakuppe S, Bhat P. Oral health status and treatment needs of Iruligas at Ramanagara District, Karnataka, India. West Indian Med J. 2013;62:73–80.