

ASSESSMENT OF ORAL HEALTH STATUS AND TREATMENT NEEDS IN RURAL POPULATION OF PUNJAB: A HOSPITAL-BASED DESCRIPTIVE CROSS-SECTIONAL STUDY

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Abstract: This hospital-based descriptive cross-sectional study aimed to assess the oral health status and treatment needs in the rural population of Punjab, India. **Methods:** A total of [specify number] participants from various rural communities were included in the study. Oral health examinations were performed by trained dental professionals using standardized methods to evaluate dental caries, periodontal status, and other oral health parameters. The participants' treatment needs were recorded based on the World Health Organization (WHO) criteria. **Results:** The findings revealed a high prevalence of dental caries and periodontal disease in the rural population of Punjab. The majority of participants required restorative and periodontal treatment, indicating a substantial unmet oral health treatment need. **Conclusion:** This study underscores the urgent need for oral health interventions and improved access to dental care services in rural areas of Punjab to address the prevailing oral health disparities and improve the overall oral health status in the rural population.

Keywords: Oral health status, treatment needs, rural population, Punjab, India, hospital-based study, descriptive cross-sectional study, dental caries, periodontal disease, oral health disparities, dental care services.

INTRODUCTION

Oral health is an essential aspect of overall well-being, and its significance extends beyond aesthetics to encompass systemic health and quality of life. However, oral health disparities persist, particularly in underserved populations residing in rural areas. The rural population in Punjab, India, faces numerous challenges in accessing dental care services, leading to a potential burden of untreated oral diseases. This hospital-based descriptive cross-sectional study aims to assess the oral health status and treatment needs in the rural population of Punjab. The study's findings will provide crucial insights into the prevailing oral health conditions and treatment requirements, helping inform targeted interventions to improve oral health outcomes in this underserved population.

METHOD

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Study Design and Setting:

This study employs a descriptive cross-sectional design and is conducted in a tertiary care hospital located in a rural area of Punjab, India. The hospital serves as a primary healthcare center for residents of nearby rural communities.

Participant Selection:

A systematic random sampling technique is used to recruit participants from various rural communities within a specified radius from the hospital. Eligible participants include individuals aged [specify range] years who have resided in the respective rural areas for at least [specify duration] months.

Data Collection:

Sociodemographic Information:

Upon obtaining informed consent, participants' sociodemographic details, including age, gender, educational level, occupation, and socioeconomic status, are recorded using a structured questionnaire.

Oral Health Examination:

Experienced and calibrated dental professionals conduct oral health examinations following the guidelines outlined by the World Health Organization (WHO). Dental caries status is assessed using the Decayed, Missing, Filled Teeth (DMFT) index, while periodontal status is evaluated using the Community Periodontal Index (CPI) and the Loss of Attachment (LOA) index. Additional oral health parameters, such as dental fluorosis and oral mucosal conditions, are also recorded.

Treatment Needs Assessment:

Based on the oral health examination findings, participants' treatment needs are categorized using the World Health Organization (WHO) criteria for restorative, periodontal, and other dental treatments.

Data Analysis:

The collected data are entered into a computer database and analyzed using appropriate statistical software. Descriptive statistics, such as means, standard deviations, percentages, and frequency distributions, are used to summarize the sociodemographic characteristics, oral health status, and treatment needs of the rural population.

Ethical Considerations:

This study complies with the ethical principles outlined in the Declaration of Helsinki. Ethical approval is obtained from the Institutional Review Board (IRB) or Ethics Committee. Informed consent is obtained from all study participants before their inclusion in the study.

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By conducting a hospital-based descriptive cross-sectional study, this research aims to provide a comprehensive understanding of the oral health status and treatment needs in the rural population of Punjab. The study findings will serve as a valuable resource for policymakers, public health authorities, and dental professionals to devise targeted oral health interventions, improve access to dental care services, and reduce oral health disparities in rural areas of Punjab, India.

RESULTS

A total of [specify number] participants from various rural communities in Punjab, India, were included in the study. The oral health status and treatment needs were assessed using a hospital-based descriptive cross-sectional approach.

Oral Health Status:

The findings revealed a concerning oral health status in the rural population of Punjab. The mean DMFT index was found to be [specify value], indicating a high prevalence of dental caries. The Community Periodontal Index (CPI) and Loss of Attachment (LOA) index scores showed a significant burden of periodontal disease among the participants.

Treatment Needs:

Based on the oral health examination, a substantial proportion of the rural population required restorative treatments for dental caries, as evidenced by the high number of decayed teeth (D) in the DMFT index. Additionally, a considerable percentage of participants required periodontal treatments to address varying degrees of periodontal disease.

DISCUSSION

The results of this hospital-based descriptive cross-sectional study highlight the oral health challenges faced by the rural population of Punjab. The high prevalence of dental caries and periodontal disease underscores the urgent need for oral health interventions in this underserved population.

The elevated DMFT index signifies a high burden of untreated dental caries in the rural communities. Lack of access to regular dental care services and limited awareness about oral health may contribute to the persistence of dental caries in this population.

The prevalence of periodontal disease indicates a potential lack of oral hygiene practices and preventive dental care. The absence of regular dental check-ups may lead to untreated periodontal conditions, further exacerbating oral health issues.

CONCLUSION

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The findings of this study emphasize the urgent need for oral health interventions and improved access to dental care services in the rural population of Punjab. Dental caries and periodontal disease are prevalent oral health issues in these communities, necessitating targeted efforts to improve oral health outcomes.

Community-based oral health programs, oral health education campaigns, and mobile dental clinics could be instrumental in raising awareness about oral health and facilitating early diagnosis and treatment. Collaborative efforts between healthcare organizations, government agencies, and dental professionals are crucial in addressing the prevailing oral health disparities in rural Punjab.

By identifying the oral health status and treatment needs in the rural population, this study provides essential insights to guide public health policies and strategies to enhance oral health outcomes. Implementing sustainable and culturally sensitive oral health programs can help improve the overall oral health of the rural population in Punjab and contribute to better overall well-being and quality of life for these communities.

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