Volume 19 Issue 40
Originally issued as J5



Global Journal of Medical Research: J
Dentistry & Otolaryngology
Volume 19 Issue 5 Version 1.0 Year 2019
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals
Online ISSN: 2249-4618 & Print ISSN: 0975-5888

Oral Health Status in India- Where do We Stand?

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GJMR-J Classification: *NLMC Code: WU 113*



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Oral Health Status in India- Where do We Stand?

Dr. L S Sreela [α], Dr. Anita Balan [σ] & Dr. Admaja K Nair [ρ]

Abstract- Oral health is an imperative part of general health. Moreover, dental diseases are easily preventable to a huge extent. In India, dental diseases, particularly caries and periodontal disease as well as oral cancer, still continues to be widespread in the population. Only two large scale Oral Health Surveys were conducted in the country till now: (i) National Oral Health Survey & Fluoride Mapping by Dental Council of India in 2003 and (ii) Oral Health in India: Report of multi-centric oral health survey by Ministry of Health and Family Welfare in collaboration with Dental Department AIIMS in 2005. This article highlights the desperate necessity of a nationwide oral health survey for proper identification and correction of real barriers in achieving good oral health for the population.

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Key message: In India, there is a crucial need for conducting a proper national oral health survey so that there will be evaluation of present dental needs of the whole population which will enable in framing an apt National Oral Health policy.

I. Introduction

India is one in all the world's oldest civilizations and one of the most inhabited countries in the world. According to the census reports of Indian Census 2011, the population of India is 1,210,854,977 with 623,724,248 males and 586,469,174 females. The density of population is 382 persons/sq.km. In regards to sex ratio, at present, there are 940 females on average on per 1000 males, and the child sex ratio is 914 females per 1000 males.[1] In the Health sector, India has created monumental strides over the past decades. The average life expectancy is around 67.9 years, infant and under-five mortality rates are declining as is the rate of disease incidence.[2] Several diseases, such as polio, guinea worm illness and tetanus, have been efficaciously eradicated. In spite of all the progress within the field of health, still, there are several communicable and noncommunicable diseases posing a constant threat to our manpower and economy.

Oral health is a vital component of general health. According to the World Health Organization fact sheet on oral health, "Oral health is essential to general health and quality of life. It is a state of being free from mouth and facial pain, oral and throat cancer, oral infection and sores, periodontal (gum) disease, tooth decay, tooth loss, and other diseases and disorders that limit an individual's capacity in biting, chewing, smiling, speaking, and psychosocial wellbeing."[3] Oral diseases are also associated with non-communicable diseases (NCD) like diabetes, cardiovascular diseases, cancers, and respiratory diseases.[4] Majority of the population is even unaware regarding the preventive aspects of dental problems like dental caries, periodontal diseases or oral cancer.

II. Global Status of Oral Health

The WHO has established a Global Oral Health Data Bank in 1967 and is continuing persistent efforts to maintain surveillance in oral health. It is essential to have regional epidemiological data based on standard protocol for facilitating international comparison. WHO encourages to conduct clinical oral health surveys in every 5-6 years in the same community or setting, and for comparison between countries, certain indicator age groups are suggested: 5-6 years, 12 years, 15 years, 35-44 years and 65 years or more (or 65-74 years). To ensure data of high validity and reliability, standard criteria including use of basic instruments and record forms for recording clinical conditions are recommended. The survey protocol focuses on dentition status, prosthetic status and needs, dental caries and dental treatment needs, developmental anomalies of teeth, periodontal disease and treatment needs, oral mucosal lesions and oral precancer or cancer.[5]

There has been minimal progress regarding country wide oral health surveys in poorly developed or developing countries like that of Africa. In a couple of nations in Asia, customary overviews for the assessment of public health initiatives have been embraced. In Thailand, the Ministry of Health has led regular surveys every 5 years since 1984. Regardless of the numerous dental awareness programs, improper life style as well as die try habits continues to depreciate oral health, particularly in young children.[6] The Global Burden of Disease (GBD) Study 2016 estimated that oral diseases affected half of the world's population (3.58 billion people) with dental caries in permanent teeth being the most prevalent condition assessed whereas periodontal disease, was estimated to be the 11th most prevalent

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disease globally. In some Asian-Pacific countries, the incidence of oral cancer is within the top 3 of all cancers.[7]

III. Oral Health Status in India

a) The burden of oral diseases

There is a lack of evidence regarding recent epidemiology of dental diseases affecting the whole of Indian population and the available studies are mostly loco-regional or hospital-based. The prevalence and incidence rates of major dental diseases affecting the population is mostly based on the two large scale Oral Health Surveys conducted in the past: (i) National Oral Health Survey & Fluoride Mapping by Dental Council of India in 2003[8] and (ii) Report of multi-centric oral health survey by Ministry of Health and Family Welfare in collaboration with Dental Department AIIMS in 2005.[9]

In India dental caries (with a prevalence rate of 50-84.7% among index age groups), appear to be the major dental problem affecting the population followed by periodontal diseases (prevalence rate 55.4- 79.4%).[8] Balaji et al. reviewed the 2016 level India-specific dental disease data using the GBD approach and compared the same with the South Asian-level data. For every 100,000 Indians males 31,489 have prevalence of dental caries where as among females, it is 34,426 for every 100000. Nearly one third of the population suffers from dental caries that require treatment.[7,10] The unmet need for dental caries or periodontal pathologies is not still clearly defined. The age standardized the incidence of oral cancer in India is 12.6 per 100,000 population.[6] In spite of significant awareness campaigns and cessation programs, more than 28% of the population still uses any forms of tobacco, which are strongly associated with oral mucosal premalignant lesions and neoplasms.[11]

b) Barriers to improvement of oral health status in India

In India, the dental manpower to population proportion is low. WHO estimates the ideal dentist: population ratio as about 1:7500. In India, it was 1:30000 in 2004 which improved to 1:10000 in 2014. Even though there is short a lack of dentists based on this ratio, the main reason for lack of adequate dental care to the population is the inequality in the distribution of dentists across the country. [12] As per recent data from Dental Council of India, there are about 1.5 lakh registered dentists for a population of about 1.3 billion, out of which 72% live in villages which remain deprived of dental care.[13] Majority of the public (government) dental health-care setups are poorly equipped, understaffed, and oral health is not a priority in budgetary allocations. Not even 20% of the rural primary healthcare centers (PHCs) around the country have a dentist or a DPH professional.[14] The National Oral Health Survey 2003 was able to cover only 19 states/ union territories even though it was originally planned to cover all states/ union territories in India. However, this was not achieved as some of the state authorities, such as the North Eastern States, had expressed their inability to participate due to lack of dental colleges and related resource deficiencies in their states. The general public often does not appreciate the importance of oral health, perceives it as independent from and secondary to general health. Many public health policy makers do not understand or value oral health as part of general health care, thus sidelining oral health to a policy of lower priority. Because of their economic status, under privileged or those with compromised socio economic status are unable to pay for oral health care services. Dental health insurance is of much importance in most of the developed nations. However, in India, it is still in its nascent stage with very few insurance companies providing the service.[15]

IV. Strategies to Improve Oral Health Status

It is clear from the above discussion that India strongly needs an oral health policy that is formulated on basis of the discussed aspects. Like in developed and few developing countries, oral health must be included in family health policies. The Government should implement new programs focusing on preventive, curative, and educational oral health, integrated into the existing system utilizing government and private health and educational infrastructure in both rural as well as urban areas with equal importance. Moreover, parental approaches toward the importance of oral hygiene, plays a key role in the preservation of children's dental health. Provision of oral health education to parents through health workers or teachers is essential to raise their awareness regarding the importance of oral health. More systematic studies focusing on public attitude toward oral health care is desirable. The identification of geographical areas or population with high requirement or inaccessibility of oral health status and dental treatment needs will be possible only by conducting a nationwide oral health survey which is the utmost need of the hour. Then only a population beneficial national oral health policy be able to be implemented successfully.

V. Conclusion

Oral diseases are highly prevalent in our population, and there is an urgent need to combat them. The rapid growth of dental education institutions has not helped the Indian public health system as a whole. Moreover, in a diverse country like India, there is wide variation in the distribution of dental diseases as well as treatment needs across the different states. Estimation of dental diseases and their demographic characterization would help the administration to frame successful policies for oral health. Optimizing the

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provision of general and specialty dental services both under private and public sectors, is essential in the present scenario. A rough statistics point out the dentist population ratio is something like 1:5000, which is much above WHO recommendations. The system fails to provide specialty care to the needy. To conclude, there is a crucial need for conducting a systematic national oral health survey to evaluate present dental needs of population, which will facilitate in drafting a proper National Oral Health policy to extend good professional care to all.

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