

Review Article

Decoding India's national oral health program-an appraisal of the barriers to quality dental care

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ABSTRACT

Oral health is a poorly assessed and treated aspect of the health among Indians. The government continues to poorly fund oral health programs even though evidence of mounting incidence of poor oral health among Indians lingers on. Regardless of the profoundly anticipated national oral health program, oral health burden stays gazing at the nation. It could be a direct result of a fragmented policy with varying priorities regarding the possible solutions to oral health problems. Its implementation faces numerous hindrances which should be defeated for successful utilization. Thus, it is fundamental for the government of India, the policymakers, the stakeholders, and dental bodies to conquer every single barrier and define a compelling national oral health policy backed by current scientific evidence. It would guarantee oral health care to all particularly the populace from the oppressed section of the society. This paper is an endeavour to unite all the components identified with the national oral health program. Additionally, give suggestions for its viable usage.

Keywords: National oral health program, Quality dental care, Barriers, Implementation

INTRODUCTION

India is an immensely populated country. It has an unequal distribution of population in rural and urban areas. Nearly 28% of the population resides in urban areas with the remaining major bulk of 72% inhabiting the rural areas.¹ In urban areas, the dentist to population ratio is 1:10000. On the other hand, this ratio is 1:150,000 in rural areas.² Considering the disparity of dentists serving the rural and urban population along with the oral health situation in the country with an ever-expanding burden of dental diseases in developing countries like India; the government of India has envisaged the national oral health programme (NOHP). It intends to deliver oral health care in a coordinated manner leading to attainable, accessible, and equitable oral health care for all by 2020.³

National oral health policy was conscripted by the Indian dental association (IDA) in 1986 and was acknowledged as a vital part of national health policy (NHP) by the ministry of health and family welfare in one of its conferences in the year 1995 to be included in country's health policy. The goals of this policy encompass- Improving the determinants of oral health, reducing the morbidity from oral diseases, integrating oral health promotion and preventive services with the general health care system, encouraging the promotion of public-private partnerships (PPP) model for achieving better oral health.

Programmes has two components national health mission component and tertiary component.

NATIONAL HEALTH MISSION COMPONENT

Providing support to states to set up dental care units at district hospitals.

Support is provided for the following components: manpower support (dentist, dental hygienist, dental assistant), equipment's which include dental chair and others and consumable material for dental procedures.

TERTIARY COMPONENT

For central level activities such as-Designing IEC materials like posters, TV, Radio spots, and training modules, organizing national and/or regional nodal officers training program to enhance the program management skills, review the status of the program, preparing state/district level trainers by conducting national, regional workshops to train the paramedical health functionaries associated with health care delivery.⁴

QUALITY DENTAL CARE

Definition of quality in dentistry according to FDI "An iterative process involving dental professionals, patients, and other stakeholders to develop and maintain goals and measures to achieve optimal health outcomes."⁵ Quality in dental care is multifaceted and is difficult for any single measure to encapsulate all various components which should be tended to. Methods or measuring instruments to assess quality need to be valid, corroborated, acceptable to the investigators and the one's already investigated, have to be reliable, should be completely able to address all forms or fields in which quality needs to be addressed, must be easy to use.

We need to gauge the quality in dental care at three levels.⁶ Individual patient level, practice level and population-level. For surveying quality dental care, the patient's point of view towards the services they are receiving and, the dental professional's perspective, both have to be considered.

From the patient's standpoint, objective and subjective parameters should be taken into account. Objective outlook on the quality of dental care incorporates technical quality of the treatment and the management (organization and administration experienced) in terms of treatment. Subjective perspective involves four components-empathy, responsiveness, reliability, and capability. From the dentist's perspective-the outcome of the treatment along with the treatment quality are areas of concern.^{7,8}

ASSESSMENT OF QUALITY OF DENTAL CARE IN THE RURAL SETTING

To assess the quality of dental care in these rural settings, it is essential to examine and evaluate the attributes of the

populace. This could be accomplished by epidemiological surveys.⁹

It is of tremendous use when incorporating questionnaires addressing the specific needs of this population, educational status, and awareness regarding the importance of sound oral health amongst the rural group, occupational status of the people or source of income.

Examination of the existing service provider, the distance of the setup from the residence of the community, the time consumed in covering that stretch, mode of transportation available to get benefitted from the service and thus making it accessible.

Study of incidence and prevalence of the disease in specific groups, and geographical locations, specific diseases in the group.

Study of existing dental services, their shortcomings and difficulties they face in providing much-needed care.

Cost of the treatments provided in the existing centre and evaluation of the financial burden it poses on the masses (affordability).

Addressing all the fore-mentioned factors could help in assessing the quality of care in the population selected.

BARRIERS TO ITS IMPLEMENTATION

During the implementation of the NOHP in the pilot phase, it was perceived that oral health is mostly given the least importance by our policymakers. Sloppy communication between researchers and policymakers leads policymakers inadequately informed about the burden of oro-dental problems and its simultaneous effect on systemic health. All in all, it appears to people that oral condition can pose minimal threat to life. As recommended by WHO, health for all is viable only when every country spends 5% of gross national product for health care. As per available data, India is spending only 3%. Moreover, until today there is no separate budget allocation for oral health in the national or most state's health budget in India.¹⁰

Another barrier to the implementation of health policy is the unequal distribution of dental schools across the nation. The planning commission of government proposed the multiplication of dental colleges following anticipation of the need for more dental workforce, resulting in an increased number of dentists but could not achieve their uniform distribution amongst rural and urban masses. Most of the dental services/practitioners are clustered in urban markets following high treatment costs unaffordable by the rural population. The government proposed plan to set up new dental colleges in rural areas is only partially achieved. The planning commission of the program could recognize the necessity of training and incorporation of a vast number of dental

auxiliaries comprising of dental hygienists, dental nurses, dental technicians and, dental assistants but could not make any successive efforts to incorporate professional courses for these auxiliaries in the dental schools. This shortage of qualified professionals' results in untrained staff providing support to the dentist working in some government set up.^{11,12}

Inadequate supply of equipment, materials, and machinery in district hospitals necessary to carry out dental procedures also served as hindrances for the successful implementation of the programme. A dearth of efforts in educating the masses constrained in the deprived areas with the importance and benefits of good oral health. The unavailability of good salaried employment upgraded with perks and incentives by the government pose a threat for the appointment of dentists at government setups. Moreover, the post of dental surgeons is not present in many primary health centres.^{13,14}

The curriculum for graduation is outmoded with not enough attention to the prevention of the diseases. The dental graduates are unable to perceive the importance of prevention of oro-dental ailments for the community and they are not aware of their responsibilities towards the society. Internship programmes offered at dental schools are also underutilized and inadequately channelized. If directed or formulated accurately they can help provide services to the community specifically the rural masses. Lack of organized school oral health programmes so that children may learn right oral health practices from their childhood. Over and above all the fastest-growing population of India, rapid westernization and lack of resources are increasing the burden of oral diseases in the country.^{10,14,15}

For dietary interventions on the prevention of caries, no efforts are evident on part of NOHP to integrate with the national nutrition policy of India, a policy of feeding of infants and young children, breastfeeding, and other supplementary nutrition which would have been much beneficial. Contrary to national submission on control of fluorosis which states fluorosis as endemic in 17 states of India and prevalence of dental and skeletal fluorosis tends to be a significant problem NOHP favours the promotion of fluoride toothpaste and topical application of fluoride in persons above 6 years of age.¹⁶

Increased life expectancy poses another challenge for oral health policy due to the absence of adequate and sound monitoring and evaluation systems leading to overlooking the oral health needs of the geriatric population. Progress of implementation of this program has been very slow and variable in different regions and states of the country. There are no follow up activities as to what has been accomplished. At present, there are no effective measures available to analyse oral health outcomes following the policy. There is an absence of surveillance of oral health

care services which can be of great help to the direct planners.¹⁷

NOHP has not been implemented throughout the country due to lack of commitment, as well as alignment in terms of priority and understanding of the solutions among the stakeholders to effectively address the burden of oral diseases.

POSSIBLE SOLUTIONS AND RATIONALE FOR EFFECTIVE IMPLEMENTATION

For suggesting solutions to effectively implement national oral health policy, countries that have such policies running in their health care system can be regarded as an example for motivation and for possible solutions to make such programs fruitful.¹⁸⁻²⁰ One such country is Brazil. Brazil's national policy of oral health care also referred to as "Smiling Brazil" was implemented in 2004. They designated oral health as 1 of the 4 priority areas of SUS (unified health system). The Universal health care system is funded by federal, state, and municipal budgets. The government is responsible for providing health care to everyone. Nationwide surveys such as NHS and NOHS aimed at providing information for public health decision-making bodies acted as crucial epidemiological indicators.²¹

Brazil directed funding over US\$ 2.6 billion towards oral health over a 10-year period to strengthen health care policy. Simultaneously enhancing the job market for health professionals by boosting the number of dentists by 50% with about one-quarter of all dentists having ties to public health services of Brazil. Oral health was efficiently integrated to all levels of health care by the institutionalization of the policy and radical improvement in its installed capacity of oral health care services. The introduction of mobile dental units to regions difficult to access has also been initiated. Free medicine to users of public and private care services through the implementation of people's pharmacy in Brazil.

After a brief consideration of Brazil's initiative to implement a NOHP following rationale can be suggested for India.²²⁻²⁴

SEPARATE BUDGET

Allocation for addressing the oral health needs of people of India and prioritizing oral health as important as general well-being needs urgent attention from policymakers.

STRENGTHENING DENTAL EDUCATION IN INDIA

Immense and urgent need for intervention in the existing dental education system. Need to introduce the latest concepts and advanced techniques. Acceleration and expansion of a high standard of education to the entire

dental education system. Enlighten students with social values and responsibilities toward society. Uniform distribution of colleges is inevitable. Accreditation of dental school should be mandatory. Students should be encouraged to serve and practice in rural settings as well.

EFFECTIVE POLICY FORMULATION

Policymakers must address important factors that hinder structural oral health research in India. Promoting evidence-based researches, enhancing fund support for relevant researches, Investments toward areas that need more and immediate attention. Analysis of cost control and quality control methods should be prioritized. Prompt responses addressing diseases prevalent in the country. Formulation of strategies for early detection of disease. Inequalities in general and oral health between and within the population should be addressed while formulating policies. Systematically including oral health and general health in all policies to effectively address the problem of health inequity. Integrating oral health with sustainable development goals is important for registering, oral diseases in terms of global health and development. Formulating strategies taking account of common risk factors and root determinants of health. Policies on imposing low taxes on materials used in dentistry along with oral hygiene care products to make it more affordable. To formulate policies addressing local manufacturing of dental products curbing the costs and paving ways for employment.

UNIFORM DISTRIBUTION OF DENTAL MAN-POWER

In the rural and urban setting, for equal distribution of services. Methods incorporated by Brazil's health system to address this issue can be adopted. Good salary or financial support in establishing setups in a rural area would be motivating for the practitioners.

STRENGTHENING OF PUBLIC HEALTH SYSTEM IN INDIA

The need for strengthening the existing public health system is inevitable. Regular community oral health programs incorporating oral health education sessions in communities can influence patient's knowledge and perception towards the need for dental care. Providing oral health education at schools in rural areas can be of immense help, introduce measures to reduce exposure to risk factors for oral health.

ESTABLISHMENTS OF DENTAL UNITS IN INDIA

With the prime objective of providing coordinated care with other health facilities, setting up of dental units at primary health care centers across the country and government hospitals. Training of local health workers that is-Anganwadi and accredited social health activist (ASHA) workers to train and impart information and

awareness regarding oral health care can be of immense help.

DENTAL SAFETY NET SYSTEM

Can be defined as the facilities, providers, and payment programs that support dental care especially for the "underserved populations". The need for organized dental safety net systems specifically in rural India cannot be overlooked. Personnel who are dedicated and committed to providing selfless health care for the betterment of neglected masses can be encouraged.

PUBLIC-PRIVATE PARTNERSHIPS

Cultivating public-private partnerships specifically involving non-profit private partners to make universal health care available to all shall be considered. Refinement of other determinants of health like social, economic, and political disparities can be effectively addressed through comprehensive partnerships.

CONCLUSION

Health conditions such as oral diseases that pose low mortality, most of the time face challenges when it comes to political prioritization. Unfortunately, the preventive segment is disregarded and the service-based approach is mainstream among policymakers. In many instances, leaders have been emphasizing the importance of oral health, however scarce endeavours to implement the policy.

It possibly is contemplated that the objectives set by oral health policy remain for the most part confined on paper and, without consistent actions these are unlikely to be accomplished. Thus, it is imperative for the government of India, the policymakers, the stakeholders, and dental bodies to overcome every single hurdle through well-organized methodologies; and formulate an effective national oral health policy backed by current scientific evidence. This would ensure quality oral health care for all, especially the impoverished section of the society of India.

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REFERENCES

1. Oswal K, Gour R, Deshpande T, Dhoble A. Developing an Innovative Model of oral Health Service Delivery in India. *Prev Med Health*. 2017;1(4):1014-8.
2. Singh A, Purohit BM. Addressing geriatric oral health concerns through national oral health policy in India. *Int J Health Policy Manag*. 2014;4(1):39-42.
3. Operational guidelines. National oral health program. Ministry of health and family welfare Government of

- India. Available from: <https://mohfw.gov.in/sites/default/files/51318563751452762792-0.pdf>. Accessed on 24 July 2020.
4. Lal S, Paul D, Vashisht BM. National Oral Health Care Programme (NOHCP) implementation strategies. *Indian J Community Med*. 2004;29(1):3-10.
 5. FDI-World dental federation. Quality in dentistry. Adopted by FDI General Assembly, August 2017.
 6. Tickel M, Campbell S. How do we measure quality in primary dental care? *Br Dent J*. 2013;215(4):183-7.
 7. Mortelmans E, Berghmans J, Justous. Quality dental care: a complex subject. *Rev Belge Med Dent*. 2008;63(3):108-24.
 8. Scott Trettenero D. Quality dentistry: what does that really mean? *Dentistry IQ*. Jan 2016. Available from: <https://www.dentistryiq.com/articles/2016/01/quality-dentistry-what-does-that-really-mean>. Accessed on 24 July 2020.
 9. Gupta S, Ranjan V, Rai S, Mathur H, Solanki J, Koppula SK. Oral health service utilization among the rural population of western Rajasthan. *India. J Indian Acad oral med radiol*. 2014;26:410-3.
 10. Parkash H, Shah N. National Oral Health Care Programme: Implementation Strategies. New Delhi: National Oral Health Care Programme, Govt. of India; 2001.
 11. Kothia NR, Bommireddy VS, Devaki T, Vinnakota NR, Ravoori S, Sanikommu S et al. Assessment of the status of National oral health policy in India. *Int J Health Policy Manag*. 2015;4(9):575-81.
 12. Wilson NHF, Shamshir ZA, Moris S, Slater M, Ei Kok C, Dunne SM et al. Dental workforce development as part of the oral health agenda for Brunei Darussalam. *Int Dent J*. 2013;63:49-55.
 13. Reddy KV, Moon NJ, Reddy KE, Chandrakala S. Time to implement national oral health policy in India. *Indian J Public Health*. 2014;58:267-9.
 14. Tandon S. Challenges to the oral health workforce in India. *J Dent Educ*. 2004;68(7):28-33.
 15. Gambhir RS, Gupta T. Need for oral health policy in India. *Ann Med Health Sci Res*. 2016;6(1):50-5.
 16. Narayan A, Thomas SJ, Daniel A, Fatima S, Mathew RA. An overview of oral health in India current scenario and challenges. *Int J Oral Care Res*. 2016;4(4):280-3.
 17. Delhi: Planning Commission of India; 2011. (HLEG) HLEG. High Level Expert Group Report on Universal Health Coverage for India. 2011;1-346.
 18. Onwujekwe O, Uguru N, Russo G, Etiaba E, Mbachur C, Mirzoev T et al. Role and use of evidence in policymaking: An analysis of case studies from the health sector in Nigeria. *Health Res Policy Syst*. 2015;13:46.
 19. Etiaba E, Uguru N, Ebenso B, Russo G, Ezumah N, Uzochukwu B et al. Development of oral health policy in Nigeria: An analysis of the role of context, actors and policy process. *BMC Oral Health*. 2015;15:56.
 20. Mozdehifard M, Ravaghi H, Raeissi P. Application of Policy Analysis Models in Oral Health Issues: A Review. *J Int Soc Prev Community Dent*. 2019;9(5):434-44.
 21. Pucca Jr GA, Gabriel M, Aranjó ME, de Almeida FC. Ten years of a national oral health policy in Brazil: Innovation, boldness, numerous challenges. *J Dent Res*. 2015;94(10):1333-7.
 22. Janakiram C, Sanjeevan V, Br R, Joseph J, Stauff N, Benzian H. Political priority of oral health in India: analysis of the reason for neglect. *J Public Health Dent*. 2018;78(2):144-53.
 23. FDI World dental federation. The challenges of oral disease-A call for global action. The oral health atlas. 2nd ed. Geneva: FDI, 2015.
 24. Mathur MR, Singh A, Watt R. Addressing inequalities in oral health in India: need for skill mix in the dental workforce. *J Family Med Prim Care*. 2015;4(2):200-2.

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