

Stakeholder perspectives on the integration of oral health into national health schemes: A mixed-method study research design in Delhi, India

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ABSTRACT

Aim and Objectives: To assess the factors and perception of various stakeholders on the integration of oral health into the national health schemes using a mixed-method research design. **Materials and Method:** A mixed-method study was carried out in 2018 in two phases. In the first phase of the study, a pretested and prevalidated self-designed close-ended questionnaire was used to assess the knowledge, attitude, perception, barriers, myths, and feasibility of the integration of oral health in national health schemes. This questionnaire was administered to 96 stakeholders consisting of a medical officer (MO), accredited social health activists (ASHA), auxiliary nurse midwifery (ANM), and dental surgeon in nine Delhi Government dispensaries. The questionnaire consisted of 42 close-ended questions and four open-ended questions. The domains and themes were identified along with the challenges and opportunities of integration for focus group discussion (FGD) after analyzing the results of the first phase. The FGD consisted of seven members representing each of the above stakeholders along with one moderator and one recorder. **Results:** 88.3% of the ASHA workers and 85.7% of the ANM accepted that oral screening should be incorporated in their routine practice. The major barrier to the incorporation of oral health in general health was the lack of training and insufficient provision of monetary incentives. Job burnout, work situation, inadequate pay, opportunities, workload, and limited career development were the demotivators, whereas respect, goodwill, and recognition from the general public were the inducers. **Conclusion:** There was a strong agreement for National Oral Health schemes to be given space and priority in India. The majority agreed that they can be used as a medium for imparting oral health education. The majority of the stakeholders believed that oral health should be a part of general health and they are open to any scheme or program which would add an oral health component.

Keywords: Health care professional, integration, mixed method, national health schemes, oral health policy, practice

Introduction

Oral health is an intrinsic part of general health. With increasing life expectancy, oral health is bound to play a major role in

improving the quality of life. The prevalence of oral diseases, like dental caries, periodontitis, malocclusion, and oral cancer is very high in India.^[1] Despite this, India does not have a synergistic approach that relates general health to oral health.

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The Government of India had launched various programs for health. Some of the programs running successfully are the Revised National Tuberculosis Control Program, National AIDS control program, National Program for Control of Diabetes,

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Cardiovascular disease and stress etc. However, oral health has never been incorporated in any national health schemes. The National Oral Health Program (NOHP) was implemented as a 12th Plan period launched in the year 2014-15 to scale up the public health facilities of the country for an attainable, affordable, and quality oral health care delivery.^[2] The objectives of this program are to improve the determinants of oral health, reduce morbidity and mortality from oral diseases, and promotion of public-private partnerships for achieving public health goals. Ayushman Bharat was launched on September 28, 2018 as a centrally sponsored scheme that has two major health initiatives: creation of Health and wellness centers and National Health Protection Scheme. Under this, 1.5 lakh existing subcenters will be revamped and bring the health care system closer to the homes of people in the form of health and wellness centers. These centers will act as the panorama of health care, including dental care.

Dental diseases are largely preventable and affect all.^[3] The dearth of availability of oral health care services not only exacerbates the disease^[4] but additionally, affects the quality of life with a catastrophic effect on personal expenditure as it is either not covered under insurance or is not accessible.

Empowering the community health workers like doctors/physicians, ASHA, and ANM for oral health can be attainable in a growing country like India where oral health is not salient yet.^[5] Oral health professionals can be a catalyst in such activities to broaden their role in the delivery of overall health care. The community health workers bridge the interface between those in need and the health care systems.^[6] The stakeholders can be service extenders in providing the role as described.^[7]

The rationale behind the study was to discern the stakeholder's perspective on the integration of oral health into national health schemes in Delhi, India.

Material and Methods

Study design and sampling

As Delhi is the capital of India, with a population of 1.68 crores,^[8] a mixed-method research design was employed to assess the factors and perception of various stakeholders on the integration of oral health into the national health schemes. A purposive sample of nine Delhi Government dispensaries was recruited from September to November 2018. This was followed by a Focus Group Discussion (FGD) and a synoptic understanding of the factors under interest was conducted [Figure 1].

Ethical approval was obtained from the institution and permission from the medical officer in charge of each dispensary. Informed consent was obtained from the participants prior to the study. Stakeholders present and gave consent on the day of the study were included in the study.

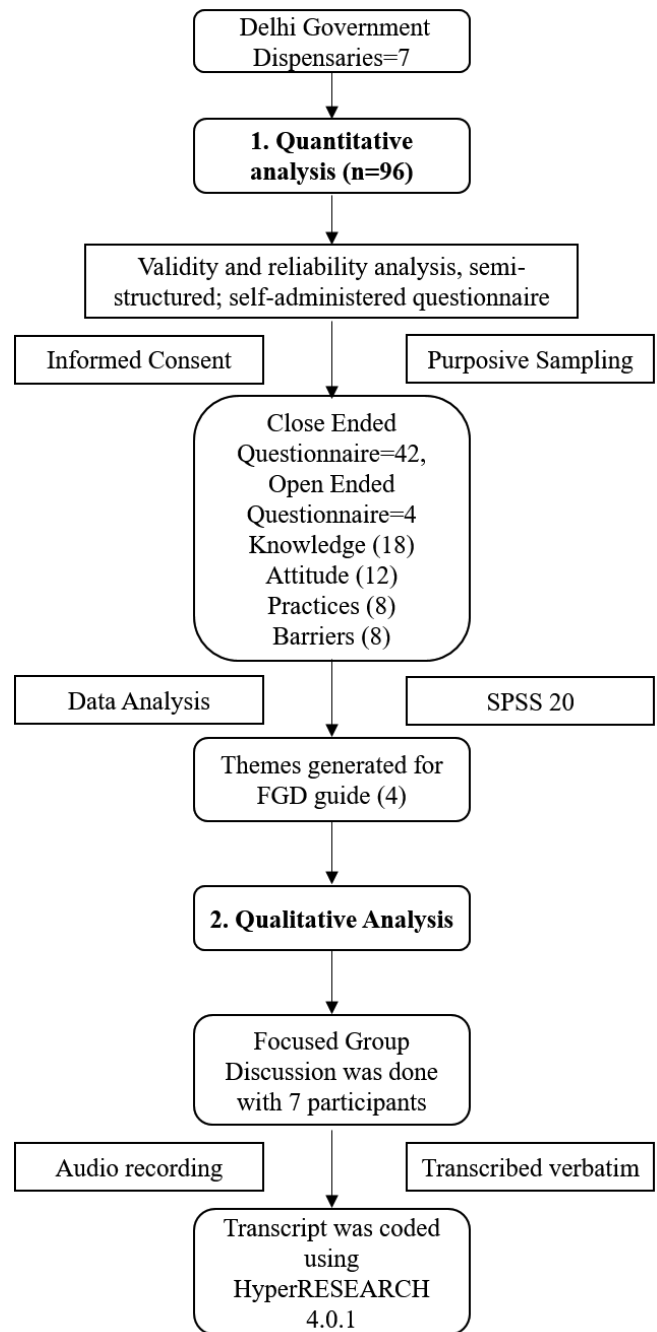


Figure 1: Flowchart of the study

The investigator was trained and calibrated for carrying out mixed-method research.

Quantitative phase

The first phase of the study consisted of a pretested, self-administered questionnaire consisting of 46 questions. A total of 42 close-ended and four open-ended items were present which were validated by ten subject experts. The questionnaire explored participants on their knowledge (18), attitude (12) regarding oral health, oral hygiene practices (8), and the barriers in the integration of oral health in national health

schemes (8). The questionnaire was in English and was translated into Hindi and then back-translated into English by bilingual translators. Finally, a consensus was formed to produce the final translation in Hindi. The knowledge-related items were based on multiple-choice questions with only one correct answer. The construction of the questions was balanced with both positive and negative directions to prevent similar responses. A purposive sample of 96 subjects from the nine dispensaries consisting of 11 Medical officers, 21 ANMs, 60 ASHAs, and four dental surgeons filled the questionnaire.

Qualitative phase

The second phase was FGD, done separately at a selected Delhi Government dispensary, according to the convenience of the focus group. Seven participants were conveniently chosen to provide an insight into the integration of oral health into the national health schemes. The participation was multi-tiered that constituted one medical officer, three ASHA workers, two ANM workers, and one dental surgeon. The investigator was the moderator of the FGD. Prior to FGD, the interview guide was pilot tested by conducting an FGD at the investigator's workplace. The format of the FGD was prepared based on the themes generated from the first part of the study. The domains identified were "National Health Programmes", "General health," "Oral Health, Tobacco Use," "Financial and Non-Financial Incentives," "Training regarding oral health," "current referral system," "Ayushman Bharat," and "barriers while incorporating oral health component into national health schemes." The FGD was conducted in the local language Hindi and it lasted for 51 minutes [Figure 2]. A recorder taped (audio as well video) the whole discussion and the medical officer was made as the group coordinator. The FGD was then reviewed by the second author, who was also trained in qualitative research in order to reduce bias and interpretive credibility.

Data management and processing

The quantitative information was entered in Microsoft Excel 2007 and analyzed through SPSS version 23. For nominal data chi-square was conducted and for continuous data t-test was conducted. The responses collected from the FGD were digitally audiotaped, videotaped in Mi4i and mp3 formats, and analyzed. The translated transcripts were coded and analyzed using the HyperRESEARCH 4.0.1 software systematically to identify the themes. A descriptive and exploratory qualitative design was deployed in order to gain insights into the stakeholder's perceptions and opinions.

Results

Quantitative results

Most of the participants (96.9%) were middle-aged females and 61.5% were below 40 years of age. [Table 1]

A large proportion of stakeholders did not know the influence of oral health on general health. All the MOs (100%) were

unaware of the effect that oral health has on diabetes. 50% of dental surgeons and 60% MOs were unaware of the relationship of oral health on hypertension and stroke.

All stakeholders agreed to additional work-related incentives in addition to the monthly payment. The major barriers to incorporating oral health in general health were the lack of training and insufficient provision of monetary incentive [Table 2]. About 63.63% MOs believed lack of training as a barrier. In addition, it was observed that a majority (n = 94; 97.9%) of the participants agreed on additional training on oral health for self.

It was also observed that 90.9% MOs, 85% ASHAs, and 95.2% ANMs referred patients to dentists if any oral health symptoms were there.

Table 1: Mean scores of various stakeholders for the existing level of knowledge; S- Significant

Study participants	Medical officer	Accredited social Health activists	Auxiliary Nurse Midwifery	Dental Surgeons
Mean knowledge score ± SD	10.27±1.34	7.93±2.82	8.52±2.74	13.50±3.51
p-Value = <0.001; S ; F-Value = 6.961				

Table 2: Frequency distribution of stakeholders regarding the barriers for integrating oral health in general health; S- Significant

Barrier		Medical Officer	Accredited social Health activists	Auxiliary Nurse Midwifery	Dental Surgeons	Chi square	p- Value
Lack of training	Agree n (%)	63.63	45 (75)	80.95	25	14.29	0.02
	Disagree (%)	36.36	15 (25)	19.04	75		
Lack of confidence	Agree (%)	18.18	45	47.61	25	7.88	0.24
	Disagree (%)	81.81	55	52.38	75		
Insufficient provision of monetary incentives	Agree (%)	54.54	55	61.90	25	7.88	0.24
	Disagree (%)	45.45	45	38.09	75		

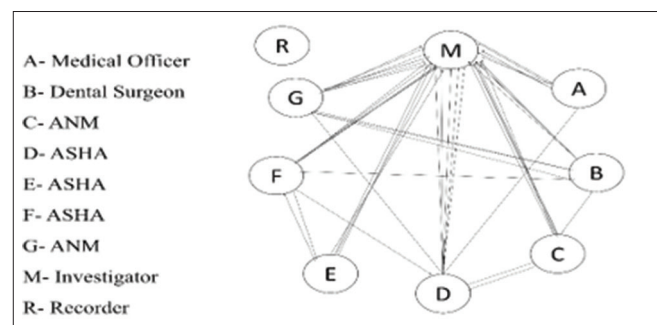


Figure 2: Sociogram depicting good group dynamics in the focus group discussion

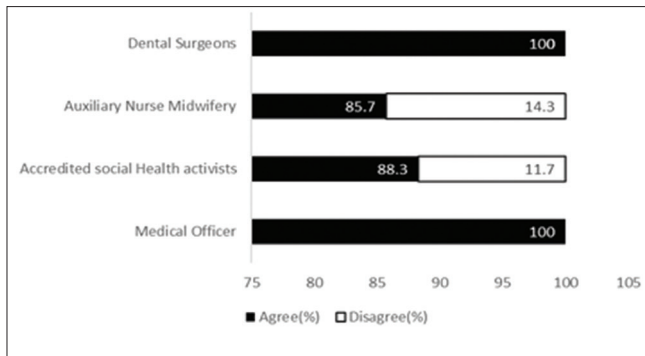


Figure 3: Attitude of stakeholders regarding Oral health integration in general screening

A majority of stakeholders (94.79%) agreed that oral health should be incorporated in their general screening practice [Figure 3].

Qualitative results

An FGD was conducted by the investigator for the stakeholders who spoke Hindi. A total of seven stakeholders were interviewed. There were six females and one male in FGD. The mean age was 27.14 ± 19.19 years with age ranging from 30 to 50 years. A mix of one MO, three ASHAs, two ANMs, and one dental surgeon participated in the FGD. After verbatim, we were able to enumerate 30 codes. These codes were broadly classified into eight categories and these categories were grouped into two themes.

The FGD helped us to deduce 2 main themes i.e.

Factors influencing oral health and perceptions, under these 2 themes various subthemes were identified.

Theme 1: Factors influencing oral health

Category 1: Factors influencing the utilization of dental services

The consensus among FGD was that oral health was a neglected area having an impact on individuals and society as a whole. Stakeholders also shared how dental treatment is inaccessible to patients.

The individual concerns were:

“Patients are reluctant to visit the dentist as they believed it was just a toothache which would resolve on topical application of dentogel (topical anaesthetic agent)”- MO.

“Patients reported problem of standing in queues with long waiting hours in government centres and high cost of treatment at private centres”- ASHA.

One of the participants shared that their patients were charged 200 rupees as fees in private clinics and additionally had to pay for medicines.

Category 2: Motivating factors

The stakeholders showed interest in their job. They agreed that

they were appreciated and respected by the community for the services they render.

“Training is necessary to keep us updated so as to improve our performance”- ASHA.

Category 3: Demotivating factors

Work related demotivators included job fatigue and stress, work situation, inadequate pay in relation to the work, advancement opportunities, and limited carrier development.

One of the ASHA workers expressed displeasure of overburdened work.

One of the workers said, “We are underpaid and our incentives are insufficient in relation to our work and responsibilities”.

The stakeholders were unaware of the national schemes where oral health was added recently.

Category 4: Poor supportive supervision

“Supervisors are not sensitive and sympathetic to our work related problems” - ASHA and ANM.

The stakeholders lamented the lack of appreciation by their supervisors.

Category 5: Tobacco menace

“Tobacco users often face problem in opening their mouth completely making themselves at risk of developing oral cancer”- MO and ASHA.

According to FGD most of the participants were aware of tobacco’s hazards and its adverse economic impact.

The stakeholders witnessed the detrimental effects tobacco has on an individual by sharing their experience while coming across different patients.

“Patients come to us with the complaint of difficulty in breathing, at this stage they are diagnosed with chronic obstructive pulmonary disease which is difficult to diagnose and treat”- MO.

They also shared their valuable experience of how they provided brief counseling to their patients using tobacco.

“We explain our patients about the adverse effects tobacco has on our body and how it can have an impact in your daily wage”- MO.

Category 6: Community Altruism

“We make it sure that every child receives necessary vaccines on time and no eligible child remains uncovered” – ANM They informed about the importance of ASHA and ANM in motivating women for hospital delivery and child vaccination.

“We identify pregnant females and attend them till their delivery and also ensure that they take their iron and calcium supplements on timely intervals”-ASHA

Theme 2: Perceptions

Category 7: Integration of Oral health in National health schemes

All the participants were of the opinion that oral health must be part of all the national health schemes to make it more purposeful and contributory to the overall society help. All the subjects agreed to the integration of oral health in general health programmes and would have a positive role.

“Already general health schemes are functional at district, state level and health care infrastructure is also available which will save money and time”-MO.

“We are known to and are conversant with the local community and their conditions and problems which will help us in better serving the patients”-ASHA.

Category 8: Awareness regarding oral health

Discussion with the stakeholders revealed that they were aware of the role of sugar in causing dental problems and encouraged their patients to brush after meals and limit its intake.

One of the participants also told how the oral health of pregnant women can have an impact on their fetus (unborn baby).

“Poor oral health can affect the child as well”-ASHA.

Discussion

This study has explored the perceptions and experiences of stakeholders as community health workers and has identified multiple opportunities and challenges faced by them in realizing their varied roles. It also provided an opportunity to improve dental health services through stakeholders at the grass-root level, thereby lessening the burden on the health system.^[9] The majority of the health workers (61.5%) were below 40 years of age which can be a source of the success of the programme as they are young, energetic, and enthusiastic and are able to provide the services in a better way with motivation and capacity building.^[10]

The area of concern was that public-funded health care systems have long waiting periods for services provided which is basically because of the higher demand for services owing to no charges. Participants shared their experience of patients waiting for the appointment after referral. Motivation is an important parameter that gives them a rewarding feeling to put their skills into practice and get desirable results. They also gain goodwill and recognition from the general public where they work. The community acknowledges their contribution in improving the general health awareness and practices. In accordance with our study, Garg PK *et al.* (2013) revealed that an important motivational factor for the stakeholders is the commitment to work and financial gain.^[6] Overall, the stakeholders expressed that they were engaged in too many activities that they were unable to devote time for their routine work. Thus, too much work and job burnout restrict their productivity and performance.

This study showed that tobacco use has an inherent risk since it is both highly addictive and is a huge threat to health. However, they did provide brief counseling but did not refer the tobacco users to tobacco cessation centers. The stakeholders in this study conveyed their concern for their patients by explaining the need for providing immunization. They elucidated to their patients how immunization prevents illness, disability, and death from vaccine-preventable diseases.

The study participants reported that regular training is necessary to equip themselves with necessary knowledge, confidence, and skill, in view of the emerging health issues which was similar to findings achieved in a systematic review.^[11-13] They were interested in enhancing learning and obtaining new health-related information which will allow them to be well informed to help the community. Tripathy *et al.* (2016) were also of the view that besides job-burnout, ample amount of work and less career development opportunities were identified to undermine their capacity and strength.^[14] Alternative income-generating activities, frequent training, joint problem-solving, and communication between supervisors and supervisees, options for career advancement, and nonmonetary substitutes for remuneration such as health benefits, informal praise, and transportation can address the financial needs. Feedback about issues faced during work should be addressed and rectified. It is also suggested for the establishment of a National Oral Health Policy within the existing national health schemes and a separate budget allowance for oral health.^[15]

Lastly, an overwhelming majority of the health care workers agreed that the national health schemes should take up the ancillary responsibility of oral diseases. For this, health policymakers can accentuate the integration of oral health care.

Recommendations

The results of the study are an eye-opener as the stakeholders were unaware of the recently launched Ayushman Bharat which is the principal vehicle for achieving universal health coverage in India. To ensure that the citizens of this country can access quality healthcare in an affordable manner using this scheme, awareness has to be created among the providers first. Only then, can we think about the public who are at the user end. An oral health package can be formulated comprising of oral hygiene instructions, affordable fluoride toothpaste, palliative drug therapy for acute oral infections, and atraumatic restorative treatment. The existing situation demands the formulation and implementation of National Oral Health Policy in India to expand oral health care to make it reachable. Oral health education can be imparted to parents, teachers, and health workers including primary care physicians to raise their awareness regarding the importance of oral health.^[16] Primary care physicians are best suited for this as they treat the family as a whole and can serve to provide more comprehensive care.^[16] Hence, the Government of India along with the Dental Council of India, Indian Dental Association, and State Dental Associations can bring a proposal

to train ASHAs, ANM, doctors, and other health care workers about oral health.

The notion to integrate oral health with national health schemes can prove to be successful as the stakeholders seemed to be supportive. Integrated approaches are the most cost-effective and realistic ways for the implementation of sound interventions for oral health around the globe.^[17] The healthcare workers do provide a constellation of services and play a potential role in providing primary health care but they still need to put into practice their training about oral health while providing services and/or advice to the needful. If training regarding oral health can be given to healthcare workers dealing with patients at the ground level, it may provide an affordable, effective, and accessible mechanism of primary oral healthcare to the community.^[4] The integration of oral health with National health schemes is a very good and positive move as additional benefits can be provided to the targeted group at no extra financial burden. The already existing infrastructure can be used; no additional staff will be required as the existing staff can be utilized for the integrated programme and their experience and expertise will serve as an additional advantage to the integration. Also, there is a need to practice financial incentives for quality improvement. However, for oral health components to become a part of national health schemes concrete and sustained efforts and orientation training, follow-up and evaluation are necessary.

On the basis of this study, suggested public health priorities include integrating oral health into medical care, implementing community programs to promote healthy behaviors and improve access to preventive services, developing a comprehensive strategy to address the oral health needs of the homebound and long-term-care residents, and assessing the feasibility of ensuring a safety net that covers preventive and basic restorative services to eliminate pain and infection.

This was the first study of its kind. Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines were cohered to while reporting the results of the qualitative component.^[18] We employed a mixed-methods approach which helped us to understand the factors and perceptions of various stakeholders on the integration of oral health into the national health schemes.

The results have provided an insight into the factors and perceptions of various stakeholders. The perceptions of the participants were generally favorable regarding its integration. The promotion of oral health and prevention of oral diseases must be provided through primary health care and general health promotion.

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Conflicts of interest

There are no conflicts of interest.

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