Primary Care Dentistry: What and Why of oral health practices of dental OPD attendees from Saurashtra region in Gujarat

Kedar Mehta[1,*], Hemali Patel[2]

[1]Assistant Professor, Dept. of Community Medicine, GMERS Medical College, Vadodara, [2]Dental Surgeon, Anandvatika Group of Hospitals, Bhavnagar

***Corresponding Author:**
Email: kedar_mehta20@yahoo.co.in

Abstract

Introduction: Oral health and diseases receive little concern in India though their consequences affect the body as a whole. A prerequisite of progress towards optimal oral health is to understand where we stand today. So present study was carried out to evaluate oral hygiene awareness and associate barriers to avail oral health curative services among cross section of patients attending our centre.

Materials and Methods: 276 subjects who gave informed consent were included out of 300 in this cross sectional study conducted at dental trust hospital, in Bhavnagar, Gujarat. A pretested, semi structured, self-administered questionnaire was given to each of the participant. Data so collected was calculated in terms of percentages and proportions.

Results: 261 (94.5%) subjects were of the view that oral hygiene is mandatory for overall health of the body, whereas hundred ninety-five (70.7%) of the subjects visited a dentist only for symptomatic reasons. 216 (78.3%) of the subjects cleaned their teeth only once in a day and reasons for not brushing teeth twice were being lazy, tired and forgetfulness as mentioned by them. Having no serious dental problem and expensive dental treatment were marked as the major barriers in receiving oral health care services and regular visit to dentist.

Conclusion: This study illustrates the peoples' neglective attitude towards their own oral health. Although majority of the respondents were aware about the necessity to maintain oral hygiene, very few of them translated it into practice. People need to be motivated for positive oral health care seeking behaviour through various campaigns and educational interventions.

Key Words: Awareness, Practices, Oral hygiene, Dental health, Gujarat

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Introduction

Oral health is fundamental to general health and well-being. Oral diseases qualify as the most common diseases of humankind, making them a significant public health concern.[1] Tooth decay is the most prevalent of oral conditions, affecting almost half (44%) of the world population in 2010 followed by severe periodontitis (11%), yet they are largely preventable. The highest levels of tooth decay are found in middle income countries like India.[2,3] Prevalence of dental caries in India varies from 50% to 84% in different age groups while for periodontal disease it is from 55% to 80% in different age groups.[4]

Despite the magnitude of oral diseases and their systemic linkage with major health problems, oral health receives little attention in developing countries like India due to the dearth of education regarding the same.[5] Dental health is quite subjective and its maintenance depends on the individual cultural and socio-economic status also. Differences in health status, both within and between countries relies on an individual's lifestyle, self-care practices, geographic location, socioeconomic status and health literacy.[6]

Majority of the people are not aware about the effect of poor oral hygiene on systemic diseases. Many diseases manifest earlier in the form of some oral signs or symptoms but they remain undetected and untreated as people are not aware about these early warning signs or symptoms. In India, people hardly visit to oral health professionals for oral health routine checkup.[7] Usually, Indian people visit only if they have any intolerable severe oral health problems if not treated by some home remedies.

On the other hand, among the adults reporting oral health problems only 48% adults get oral care in India.[3] So, there is a need to find such barriers that prevent people from seeking oral health services. This is very important for dental professionals while implementing actions to reduce oral health inequalities. These barriers must be identified, investigated and addressed to tackle unacceptable oral disease burden of the country. The important role of oral health care professionals is to create awareness amongst their patients regarding correct oral habits and proper oral hygiene practices to prevent oral diseases. Dental health education to the patients coming to their OPD can be considered as an opportunity to create awareness amongst them. So this current study was carried out with the objectives to evaluate awareness among the people regarding oral

hygiene maintenance and to explore potential barriers affecting oral health care utilization. This study would help us bridge substantial gap between the need for oral health care and the amount of care sought.

Materials and Methods

The current cross sectional study was conducted among patients attending dental OPD at trust hospital, in Bhavnagar city of Saurashtra region in Gujarat from January 2016 to May 2016. Out of all patients daily attending dental OPD, a total of 300 subjects (above age of 18 years) were selected randomly for the study. But 276 subjects were finally enrolled in the study after taking their written informed consent and the rest 24 subjects were excluded from the study who did not consent to participate in the study.

A pretested, semi structured, anonymous, self-administered questionnaire in local vernacular language was employed as the study tool for data collection. The questionnaire was designed to determine awareness among patients about their own oral hygiene and to ascertain factors which they think constituent barriers in accessing regular health care services. Socioeconomic status of the patients was assessed by collecting information on age, gender, education and occupation. For illiterate patients, dental professionals filled the questionnaire.

A number of barriers outlined in questionnaire were – No dentist around, no time, transportation problem, fear of pain, fear of injection, any uncomplimentary remarks about previous dental treatment and whether they find dental instruments frightening, dental treatment expensive or dental problems less severe. The questionnaire also tried to extract information on previous dental consultation, aids used to clean oral cavity, frequency of cleaning teeth and the reason if not cleaning twice a day.

Written and informed consent was obtained from the respondents before distributing the questionnaire. Subjects were explained about the included all 12 questions and were led question by question while answering the questions in the study instrument. Each questionnaire was rechecked by the investigator to ensure data completeness and accuracy.

The quantitative data so collected was entered into computer using Microsoft Excel and data was analysed by using Epi Info Software version 6.0. Descriptive statistics has been used to present the data in the form of percentages and proportions.

Results

Table 1 shows the socio-demographic profile of the study participants. Out of 276 dental patients, 138 (50%) were in the age group of 18-39 years. There were 150 males and 126 female patients in the study. Almost half (47.4%) of patients have been studied till graduation. Only 15% of the patients were unemployed. The average family income was Rs. 7834 per month.

As shown in Table 2, almost 95% of patients were aware about the necessity to maintain oral hygiene for overall health. Nearly 3/4th of patients cleaned their teeth only once a day. Majority (83.7%) of them used toothbrush and toothpaste for cleaning teeth and 3/4th of patients used tongue cleaner for oral hygiene. 70% of patients admitted that they visit to dental clinic only if they have some severe dental problem.

When the reasons were asked for not brushing the teeth twice, 42.9% answered they were lazy, 25.3% responded they were tired and 19.8% mentioned they forget to brush their teeth twice. This has been shown in bar diagram. (Fig. 1)

On enquiring about reasons for avoiding routine dental visit, 52.2% mentioned not severe dental problem, 41.3% mentioned about expensive dental treatment, 28.3% showed fear of pain. Some other reasons mentioned by respondents were no time, fear of injection, fear of dental instruments, transportation problems, bad past experience of dental treatment and no dentist in nearby area as shown in Fig. 2.

Table 1: Socio-Demographic profile of the study participants (N=276)

Variables	Frequency (%)
Age	
18-39 years	138 (50)
40-64 years	108 (39.1)
>=65 years	30 (10.9)
Gender	
Male	150 (54.3)
Female	126 (45.7)
Education	
Illiterate	24(8.7)
Upto Schooling	66 (23.9)
Graduate	131 (47.4)
Post Graduate	55 (20)
Occupation	
Unemployed	51(18.5)
Student	42 (15.2)
Business person	33 (12)
Govt. Employee	81 (29.3)
Private job	39 (14.1)
Professional	45 (16.3)
Average Family Income	Rs. 7834 per month

Table 2: Awareness and practices regarding oral hygiene among study participants (N=276)

Variables	Frequency (%)
Awareness about oral hygiene necessity for overall health	
Yes	261 (94.5)
No	6 (2.2)
Don't Know	9 (3.3)
Frequency of cleaning teeth	
Once in a day	216 (78.3)

Twice in a day	57 (20.7)
Thrice in a day	6 (2.2)
Aids used for teeth cleaning *	
Toothbrush and toothpaste	231 (83.7)
Toothbrush and toothpowder	21 (7.6)
Finger and toothpowder	6 (2.2)
Neemstick/Datun	42 (15.2)
Other Aids used for oral hygiene*	
Tongue cleaner	210 (76.1)
Mouth rinse (gargles)	54 (19.6)
Toothpick	45 (16.3)
Dental floss	24 (8.7)
Interdental brush	21 (7.6)
None	27 (9.8)
Visit to dental clinic	
Once a year	30 (10.9)
Twice a year	6 (2.2)
Only if dental problem	195 (70.7)
Never	45 (16.3)

*multiple responses possible

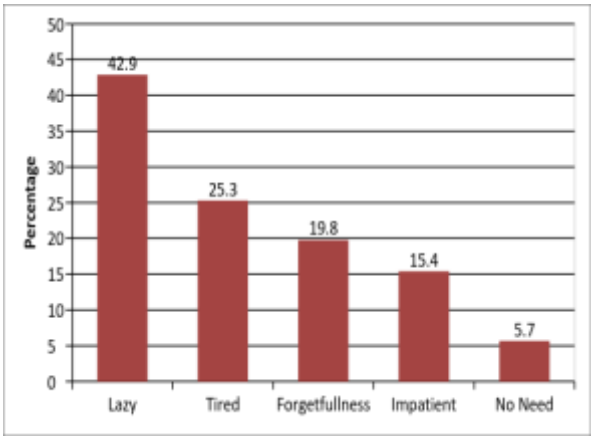

Fig. 1: Reasons for not brushing teeth twice (N= 216)

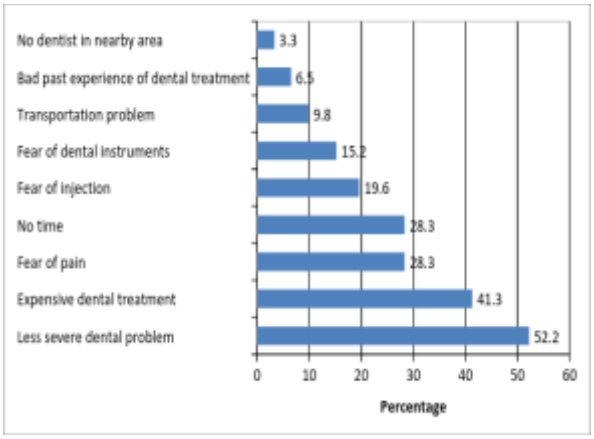

Fig. 2: Barriers for avoiding routine dental visit as mentioned by study participants (N=276)

Discussion

The close bi-directional relationship between oral and general health provides a strong conceptual basis for incorporation of oral health into general health care approaches. Overall oral health is more important than dental health per se. People should be made aware of poor oral health consequences to enhance healthy and quality life.

Unfortunately, oral hygiene is not realized and very much ignored public health problem in India. In Western countries, the frequency of oral health care utilization in the form of visit to dentist is quite higher as compared to developing countries like India. Half of the respondents in present study never consulted a dentist previously and only 34% subjects visited dentist once in two years. This is consistent with the previous study recently conducted by Devaraj CG et al in India.[8] Whereas the study conducted by Nuttall et al in United Kingdom noted that the proportion of dentate adults who report attending for regular dental check-ups has risen from 43% to 59% within 20 years.[9]

The finding of present study is quite encouraging in light of the fact that majority of respondents agreed on oral hygiene requisite for overall health of the body. Even when 94.5% participants aware of the importance of oral hygiene maintenance, only 1/3rd of them followed it in routine with cleaning their teeth twice daily, which is recommended to maintain oral hygiene. This is in accordance with study conducted in Rajpura, India by Singh et al.[10] But study conducted in Germany by Ganss et al reported almost 79% participants brushed twice a day.[11] When asked about the reason of not cleaning teeth twice or more daily 43% said they are too lazy to brush, 15% agreed they are impatient to brush and rest of them answered they forget to brush or if tired, not brushing. This finding urges the need to educate people on correct timing and frequency of cleaning teeth and its significance in prevention of dental diseases.

Majority (83.7%) of participants in our study were using toothbrush and toothpaste for teeth cleaning. Only 15% patients used datun to clean teeth. It seems datun is not frequently used today as it was earlier. Furthermore, Previous study of Kapoor et al concluded use of datun is more common in rural areas compared to urban where only 4.4% of patients were using datun.[12] Population of our study was mainly urban. A good finding is that minimal respondents reported use of finger as an alternative to toothbrush and abrasive tooth-powder that may damage enamel. On the other hand, there is failure in using dental floss and interdental brush as an adjunctive tool. Almost 16% patients were using toothpick though modern oral hygiene equipment available in market to a great degree. Similar findings observed by Goryawala et al in central Gujarat.[13] In contrast, a study by Hamilton and Couby reports much higher proportion, i.e. almost 44% of the sample they studied in North-eastern Ontario used dental floss.[14] Reason for this may be the significant resource

allocation to health education programs that are carried out in Canada. 1/3rd of subjects used mouth rinse whereas almost 3/4th amount of study population was using tongue cleaner to clean the tongue that is quite noticeable finding. Jain et al from Rajasthan, India reported only 20% of subjects cleaning their tongue and 10% of them using mouthwash.[15] Based on these results one can predict, people are not much aware of the modern oral hygiene materials and its usage in plaque control methods.

Regarding oral health seeking behaviour, study result shows that almost 71% participants visited dental clinic only when dental problems occurred. This finding is not an eye catching for Indian culture as other oral health surveys conducted among Indian population show similar findings i.e. negligible amount of utilization of oral health care services and visits to dental-care providers especially for symptomatic reasons rather than for preventive care.[16] In order to evaluate this current scenario, efforts have been made here to rule out the possible barriers affecting in receiving oral health care and regular dental consultation.

Less severity of dental problems was discovered as the major barrier to oral health care utilization among the studied population. Having no serious dental problem is reported as the most common barrier by half of the respondents in the present study, which is in agreement with the findings of the study conducted in southern china.[17] While speaking about the access, we must consider both the availability of care and the patients' willingness to seek care. But having no access to dentists and transportation problems constituted the weakest barrier in this study. Mind-set of the people to seek curative services only for symptomatic reasons seems to be stable over time despite the improvement at educational level in urban population.

Unaffordability of dental treatment ranked next clear barrier in current study since most of the treatment costs are borne by the patients. In our study 41% of subjects concurred that dental treatment costs high. WHO estimates that oral diseases are the fourth most expensive diseases to treat.[2] But the question arising here is urban people often spend number of bucks behind lavish lifestyle, then why can't they utilize some money to treat dental problems and improve their own oral health. United Nations Sustainable Development Goals (successor to Millennium Development Goals) are bounded to meet the need of the world's poorest.[18] SDGs provide a conceptual framework for advocacy, funding opportunities and action which cut across sectors and professions. Health, as a precondition and an outcome of sustainable development, has a central role in SDG context.

Present study results show that phobia of pain, injection and dental instruments have spread out widely among population in spite of the numerous advances in dental treatment modalities, acting as an obstacle in the path of dental treatment. This trend is also reproduced in the study conducted in Nigeria.[19] Associations have been found between fear related to dental treatment and less frequent dental consultation as well as poorer oral health in previous study conducted in West India by CM et all.[20]

Although many studies have been carried out from time to time to measure the associate barriers to oral health care utilization, inadequate access to dental care for some segments of the population is still a complex phenomenon.[21] After all what affects the dental health behaviour of population is outlook of people towards their own dentition. As curative treatment that relies on technology focused approach is unrealistic for many low and middle income countries, prevention of oral diseases and promotion of oral health must be at the core of national policies and programs. Basic and essential emergency care should be included in benefit packages of social health insurances to guarantee universal access for all.

Being a hospital based cross sectional study, it was unable to gather information on large scale of population practice. Our study highlights the need for similar research among rural population in which oral health care attitude and related obstacles may differ from the urban people.

Conclusion

Oral diseases impact on individuals, communities, society, health systems and the economy. This study illustrates the peoples' neglective attitude towards their own oral health despite knowing its importance and having easy reach to dental health centres. Nearly 45% of patients were lazy to brush their teeth twice. Proper self and professional oral care, combined with a healthy lifestyle would make possible to alleviate the global burden of oral diseases. Addressing oral health inequalities requires public health action on the broader determinants of health. Having no serious dental problem and expensive dental treatment were the major barriers in receiving oral health care services and regular visit to dentist as mentioned by patients. Concerted organised efforts by dental professionals need to be implicated and extended beyond the individual clinical patient services towards group and community settings through various outreach programs. Population-wide educational interventions can help achieve FDI's vision of 'leading the world to optimal oral health', and to move a step forward to create a healthy environment.

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