



Oral Hygiene Awareness and Practice amongst patients visiting OPD in a Dental college in Northern Maharashtra, India

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ABSTRACT

To assess the Oral Hygiene awareness and practices amongst patients visiting a Dental college in Northern Maharashtra, India. A cross sectional study was carried out amongst patients visiting the outpatient Department (OPD) of a Dental College in Northern Maharashtra, India. The study was carried out on a total of 400 patients. A self - constructed questionnaire was presented to them. Responses from the patients were collected and evaluated in terms of number and percentages. Majority of the patients (79%) brush their teeth with toothbrush toothpaste, 61% of them clean their tongue daily and only 7.5% of them knew about fluoride. It was surprising to know that about 85% of the total studied population visit dentists only in problem. The study shows a moderate lack of oral hygiene awareness and oral hygiene practices. There is a need for comprehensive educational programs about various forms of fluoride and convincing patients to use them regularly. Patients should be educated about the usage of dental floss and various other dental aids

Keywords : Awareness, oral hygiene, systemic health, knowledge, practices

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INTRODUCTION

Oral diseases are a major public health concern owing to their high prevalence and their effects on the individual's quality of life [1]. The impact of oral disease in people's everyday life is subtle, pervasive and influences eating, sleeping, work, and social rules [2].

The behavior of oral health care providers and their attitudes towards their own oral hygiene reflect not only their understanding of the importance of preventive dental procedures but also helps in improving the oral health of their surrounding individual's [3]. Thus, meticulous understanding of oral hygiene should be vital for behavior linked with health, though mere relationship exist between knowledge and behaviour in cross-sectional studies, nevertheless, studies revealed that there is a link between individual's knowledge and oral health [4]. Patients respond better with oral health care regimens when informed and positively reinforced. Lack of information is among the reasons for non-adherence to oral hygiene practices. Further, oral health attitude and beliefs are significant for oral health behaviour [5].

Oral hygiene behavior and oral care depends on a number of factors. Most widespread dental diseases affecting people are Periodontal diseases, Dental caries, Oral cancer.^{6,7} The possible etiological factors leading to these oral diseases are genetic predisposition, developmental problems, poor oral hygiene and traumatic incidence [8].

Prophylactic dental care is almost non-existent in rural areas and is very limited in urban areas in India [9]. According to the World Health Organization (WHO), "Promotion of oral health is cost effective strategy to reduce the burden of oral diseases and maintain oral health and quality of life [10].

It is therefore essential to combat oral diseases as a preventive approach with a concern on health education and promotion which should be given prime importance.¹¹ Although many studies have been carried out from time to time to assess knowledge and behavior of people about oral health, there is still a dearth of education especially for rural people, who make up for more than 70% of population in India.

MATERIAL AND METHODS

After proposal of the study, it was reviewed by the Institutional ethics committee of the Dental College and the clearance form was obtained.

The present Cross-sectional, self- constructed Questionnaire study was conducted by giving a manual questionnaire sheet containing demographic data 10 questions.

A pilot study was conducted on 10% of the study population to assess the feasibility of the study. A self-made close ended questionnaire written in Marathi / English language was given to each one of them (Table 1). the criteria of selection of patients included only literate individuals and above the age of 18 years . All the patients were assisted by one dental student so that if the patient had any query it could be cleared. included demographic details such as age, gender and occupation of the respondent and questions related to oral practices of the patients. the questionnaire Was further categorized to evaluate knowledge and practice related to their oral hygiene.

TABLE 1 : Questionnaire used in the study

Name ..	Age :	Gender ..	
Occupation:	Address:		
1. Do you clean your teeth ?			
Yes.	No		
If yes ,			
2. How do you clean your teeth ?			
Brush and toothpaste.	Brush and toothpowder.	Mishri	
3. How many times do you clean your teeth ?			
Once a day .	Twice a day .	Sometimes	
4. Do you know what is flouride ?			
Yes.	No		
If yes , do you use it			
5. Which method do you prefer for cleaning your teeth?			
Vertical.	Horizontal.	Both	
6. Do you use any other method other than brushing?			
Toothpick.	Mouthwash.	Floss.	None of the above
7. Do you clean your tongue ?			
Yes.	No		
8 . Have you ever experienced bad breath ?			
Yes.	No.	Sometimes	
9. Do you know that oral health and general health are related to each other ?			
Yes.	No		
10. When do you visit the dentist ?			
Only in pain.	Within 3-6 months.	More than 6 months	

The questionnaire was handed to the patients while they were seated in the waiting area in the OPD. At all times one of the investigators was present with the patient while the questionnaires were being filled to ensure that the patient doubts were cleared and not by the other patient sitting in the waiting area. 10 minutes were allotted to complete the questionnaire. Results were subjected for statistical analysis.

Statistical Analysis

Data entries were done in Microsoft office excel 2019 and analysis of the result was done using Statistical Product and Service solution (SPSS) version 22 IBM software in terms of frequency and percentage.

RESULTS

The present study was carried out on patients visiting the Out Patient Department (OPD) in a Dental college in Northern Maharashtra. The present study was carried out on 400 patients among them, 169 (42.25%) respondents were females and 231(57.75%) respondents were males. All the studied 400 patients brush their teeth on a regular basis. Majority (79%) of the patients brush their teeth with toothbrush and toothpaste, only 45% of them brush their teeth twice a day and almost 9 % used mishri to clean their teeth. (Figure 1). Only 7.5% of the studied patients know about fluoride but they rarely use

it. Almost 51% of the patients uses both, horizontal and vertical method of tooth brushing. (Figure 2) Only 2.25% of the patients uses floss on a regular basis as an interdental aid in cleaning teeth and almost 79% of the studied patients do not use any other methods to clean their mouth. (Figure 3) In the present study almost 61% of the patients clean their tongue on a regular basis and 14.75% of the patients realize that they have halitosis on a daily basis. Nearly half (50.5%) of the patients were unaware regarding the relationship between oral health and systemic health. And it is surprising to know that almost 85% of the patients visits dentist only in problems while only 5.75% of the patients visits dentist at a regular interval of 6 months. (Figure 4).

DISCUSSION

It has been observed that oral hygiene practice has still been an ignorant and unrealized crucial problem in India. In India, oral health awareness is still in a transitional stage. Oral health promotional programs are yet to be implemented and followed in India. Hence this study was attempted towards describing the preventive oral knowledge and practice and behavior of study population [1].

When developing your oral hygiene regimen, it is important to include flossing once a day in order to decrease the occurrence of cavities and gum diseases due to food lodgment in interdental areas [12]. As compared to a study conducted in Saudi Arabia in 2001, where no subject used dental floss, the current study shows only 2.25% of patients using dental floss indicating failure in the use of interdental aid [13], but is less in comparison to the local study carried out in Iran which reflected dental floss practice around 11.7 % [14]. It is seen that flossing routinely increases as income or education increases [15]. There was lack of adequate knowledge regarding dental floss among dentists in India, 78% of the dentists responded that routine use of dental floss was necessary for good periodontal health but majority of dentists cited lack of awareness, availability and cost as their major factors affecting floss usage [16].

The current study revealed that male patients have utilized dental services more than the females patients, which is similar to a study done in a dental college in North India by Daljit K et al¹. It is possible that women care more for their body and appearance and thus, their oral health when compared to men, thus the utilization of dental services is less seen with women and more with men [17, 18]. According to Global Adult Tobacco Survey (GATS) men (19%) tend to use all tobacco products at higher rates than women (2%) which can also be a major reason [19].

Generally the body's natural defenses in good oral health care such as daily brushing and flossing keep bacteria under limit, however without proper oral hygiene bacteria can reach levels that might lead to oral infections such as tooth decay and gum disease²⁰. In this study 54% of the patients brush once a day, 45% twice a day and 1% brush infrequently which is good in comparison to the study by Al- Hammadi et al. 2020 which reported that 28.2% brushed teeth once day, 37.6% brushed twice a day and 5.9% brushed infrequently [21]. A study carried out in 2015 shows that in 81% of the population of Sweden (developed country) in 2010 brush their teeth more than once a day, which is almost double that of a developing country like India, probably due to lack of oral hygiene awareness [22].

Current research study shows mouthwash usage as 7% which is very less as compared to research done in Scotland in which 25.1% population used mouthwash daily [23]. Tongue cleaning was irregularly practiced by 10% of the studied patients and regularly practiced by 61.5% of the studied patients in the current study, which is in contrast with the study done by Jain et al. in which only 20% of the studied population regularly cleaned their tongue [24]. Halitosis was experienced by almost 15% of the patients in the present study which is less in comparison to the study carried out by Daljit K et al in 2014 which had 47.2% of studied patients experiencing halitosis [1]. This shows that there is decreased use of mouthwash and tongue cleaning practices which is important as mouthwash prevents plaque accumulation, dental cavities and halitosis and regular tongue cleaning improves sensation of taste and also decreases halitosis [25].

In this study, the participants knew the fact that maintaining good oral health is an essential step to keep good systemic health (49.75%) which is still comparatively less than a research carried out in New Delhi (60.4%) [26]. As the current study was carried out in a rural area in Northern Maharashtra the awareness regarding oral hygiene practices was found out to be less in comparison to New Delhi which is a metropolitan city. This shows education plays and important role in the oral hygiene awareness. Visiting a dentist is still not considered a preventive dental behavior, at present it only depends on the treatment needs. The present study shows that around 86% of the patients visited the dentist only in problem which is more as compared to the study done by Jain et al. where 54% of the patients visited the dentist only in pain [24]. This is because of low socio-economic status in the area where this study has been carried out Since the current study used a self – reported questionnaire, authenticity of the responses could not be ascertained. The study was cross- sectional, so casual conclusions cannot be drawn. Further limitation of

the study was that all information collected in the study was based on self-reporting. It is possible that oral health behavior rates were under or over reported. The study sample size was insufficient which could lead to more marginal error.

We propose that future studies should be aimed with a larger sample size, which can be carried out in other geographic areas in India as well, to arrive at broader conclusions. It is also worth considering the fact that majority of the dentists don't prescribe the usage of fluoridated toothpaste and dental floss which could be one of the reasons behind the lack of usage of fluoride and floss, still in order to have scientific evidence, further studies should be carried out on dentist, which our study didn't attempt.

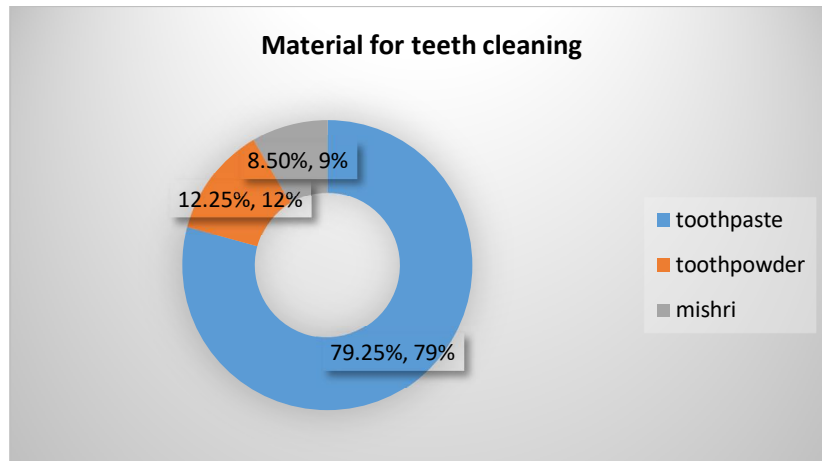


Figure 1 : Distribution of study subjects based on material used for cleaning

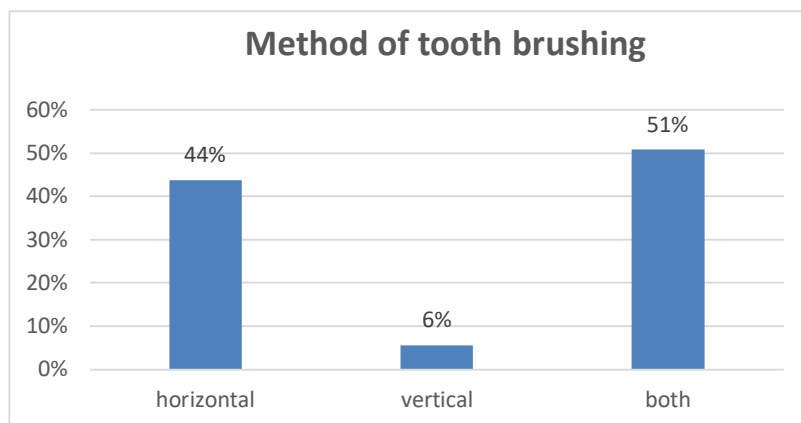


Figure 2 : Distribution of study subjects based on method used for brushing

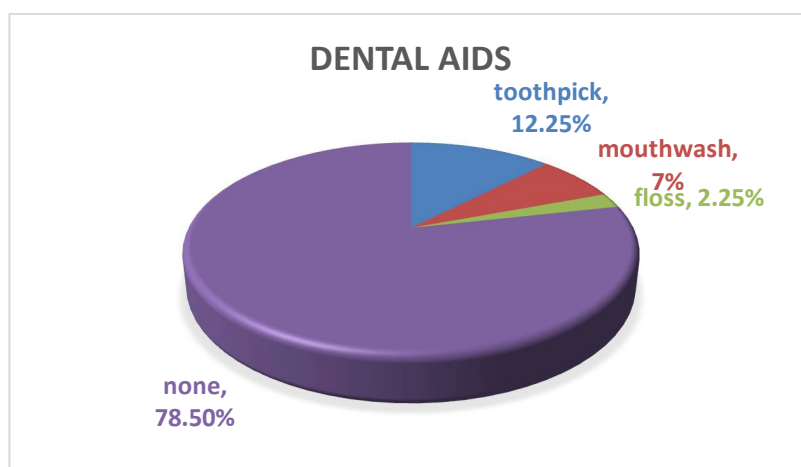


Figure 3 : Distribution of study subjects based on dental aids

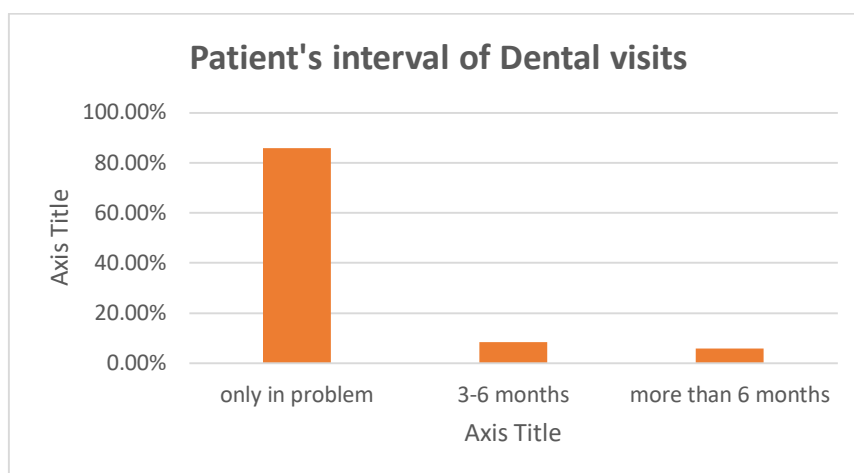


Figure 4 : Distribution of study subjects based on patients interval of dental visits

CONCLUSION

The study concluded that oral hygiene practices were moderate among the study participants. All 400 participants were literate, still there was lack of oral hygiene awareness seen. Nearly 267 million adults (15 years and above) in India (29% of the adults) are users of tobacco, according to the Global Adult Tobacco Survey India 2016-2017 [19]. As tobacco usage is the main etiology of periodontal disease, patients should be encouraged to stop using tobacco. Patients should be educated about various forms of fluoride and convinced to use them regularly. Health education programs regarding dental floss are necessary to create awareness to prevent further gum and periodontal diseases among general population especially targeting the young adult population which could help improve their attitude and oral health behavior to achieve good oral health.

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