

## Original Research Article

# Awareness, perception and outlook of oro-dental health among North Indian population: an online survey

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## ABSTRACT

**Background:** Oral diseases have contributed enormously to a majority of public health problems and are highly prevalent with significant social impact. Oral health is a precious plus point and a fundamental branch of general health. In India, oral health has been ignored since a long time and people have underestimated the pitfalls of bad oral health. Therefore, the aim of the study was to look upon a variety of different contributive and responsible factors which all and all relate to dental health awareness in North Indian population. Also, this study objected to consider the acquaintance, outlook, practices and perceptions of patients attending the outpatient departments of dental hospitals enrooting North India.

**Methods:** A self-administered structured questionnaire including demographic characteristics and oral health awareness attributes was distributed among 200 people in the age group 20-50 years using random sampling technique and the results were analyzed using percentage. The survey was cross-sectional, descriptive and hospital based and the technique was convenient sampling. SPSS version 17.0 was used to analyse the data.

**Results:** The result of this study shows an acute lack of oral hygiene awareness and limited knowledge of oral hygiene practices. Routine dental check-up was more commonly seen in people living in cities. In addition to this, the country side people visited the dental clinic only when they have extreme pain. Few people have the habit of oral rinsing after the meals. About 67% people used tongue cleaner and the use of interdental aids is very less and uncommon.

**Conclusions:** Results of this study also show that use of accessible dental service is mainly for urgent situations such as pain relief and very infrequently for regular oral health protection. There is an urgent need for comprehensive educational programs to promote good oral health and impart education about correct oral hygiene practices. Based upon these results, methodical district-oriented oral health endorsement programs are obligatory to mark the lifestyles in poles apart broad-spectrum population groups.

**Keywords:** Oral health, Dental health, Oral health awareness, Oral hygiene

## INTRODUCTION

Oral diseases are considered as a public health problem because of their increased prevalence with a significant social impact.<sup>1</sup> Knowledge pertaining to oral health is

considered as an essential prerequisite for health-related behavior.<sup>2</sup> In developing countries like India, several challenges are faced in delivering essential oral healthcare services to the rural population, these include lack of manpower, poor accessibility, illiteracy and

poverty. The dentist-to-population ratio in urban areas is 1:10,000 whereas it is 1:150,000 in rural areas.<sup>3</sup> Numerous studies on oral health status of school children have been carried out but such studies in elder population are lacking in India.<sup>4</sup>

Furthermore, even the people living in cities, despite having easy reach to dental care facilities, fall prey to dental diseases due to the unhealthy lifestyle and negligence in dietary habits, good oral hygiene habits.<sup>2</sup>

**Table 1: There was a statistically significant (p=0.02) difference regarding dental care awareness between people residing in urban and rural areas.**

Place of residence	Urban	Rural	Total
Routine check up	48	31	79
Pain	40	81	121

**Inclusion criteria**

Age groups divided 20 years to 50 years; the subjects were from the general population of North India; subjects who used mobile phones and had internet access; study was concised for a time frame of 3 months (June, July and August) were included in the study.

**Exclusion criteria**

The questionnaires half filed or incomplete were not included in the present study; patients who repudiated to take part in the study; those subjects who were out of the time frame of inclusion basis were excluded.

**Statistical analysis**

Data analyses were carried out using statistical package

**METHODS**

A self-constructed 16-item close-ended questionnaire in English language was distributed to a total of 200 subjects. The questionnaire form was divided into 2 parts. First part included the demographic details of the individuals participating such as age, gender, occupation and residential area (Table 1). Second part included questions to assess attitude, practices and various habits related to oral health.

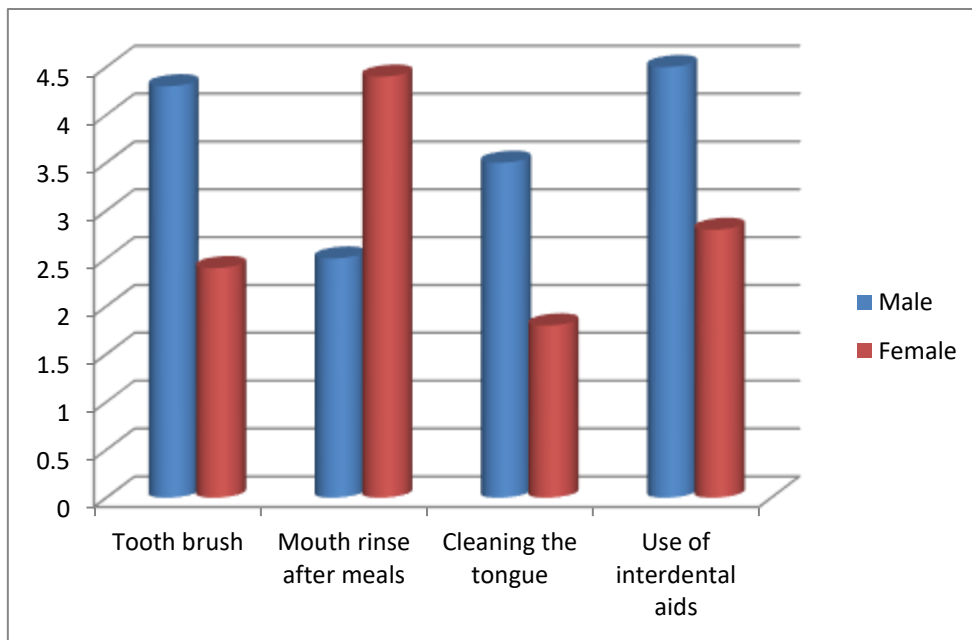
for the social sciences (SPSS) 17.0 version (Chicago, Inc., USA).

Chi square test was used to test significance with the level of significance set at p<0.05.

**RESULTS**

As per our survey in the population of the North India 49.12% was noticed to be aware about the basic habits (tooth brushing, tongue cleaning, oral rinses, use of interdental aids) for maintaining a good oral hygiene (Figure 1).

So, it can be said that in our study of 200 people a total of 49.12% were aware of dental hygiene. A conscious towards dental hygiene was seen more in females than in males.



**Figure 1: Frequency of basic habits among males and females.**

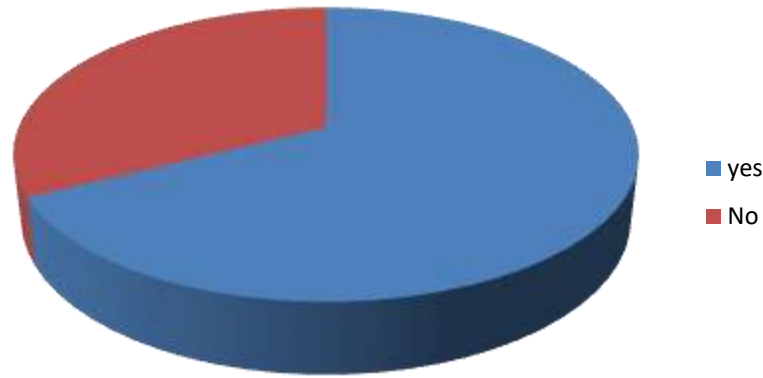


Figure 2: Frequency of tongue cleaning habit.

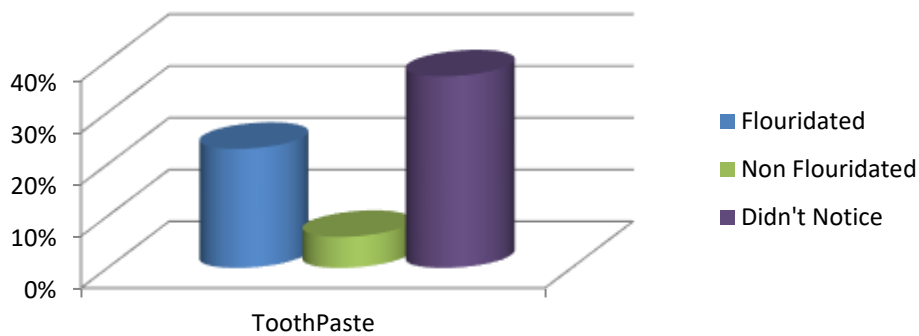


Figure 3: Percentage of fluoridated and non-fluoridated toothpastes.

Table 2: Brushing frequency among male and female.

Gender	Number	(Brushing frequency)		
		Once	Twice	Thrice
<b>Male</b>	113	85	20	08
%	56.5	42.5	10	4
<b>Female</b>	89	23	50	16
%	44.5	11.5	25	8
<b>Total</b>	200	108	70	22
%	100	54	35	11

Patients going for routine check-up to a dental clinic were observed more in urban population whereas patients visiting a dental clinic for pain were observed more in the rural population (Table 1).

Oral rinses after a meal are often advised for an improved oral health in our study 54% of people had a habit of oral rinses after meals while 46% didn't had the habit. It was also observed that the habit of oral rinses was seen more in females (39%) than males (15%). 67.5% of people had a habit of cleaning the tongue with a tongue cleaner where as 32.5% did not had a habit of tongue cleaning (Figure 2).

Using an interdental aid was becoming a new trend in the oral care. In our survey 25% used interdental aids while

44.5% didn't use 30.5% didn't know about such aids for oral hygiene.

### DISCUSSION

Oral health is an indispensable and integral component of health throughout life.<sup>5</sup> Oral hygiene had mostly remained as an ignored and unrealized major social problem. Majority of the people were uninformed about the association between oral hygiene and systemic diseases or disorders.<sup>6</sup> The mind set of people toward their own teeth and the attitude of dentists who provided dental care were important in determining the oral health condition of the population.<sup>2</sup>

Developed countries exercised effective oral hygiene practices. In developing countries, there was still a lack of awareness and knowledge regarding good oral hygiene. Earlier observed that oral hygiene was the most ignored aspect of health in India.<sup>4</sup> Unfortunately, oral health standards in India still posed a major problem due lack of awareness.<sup>2</sup>

Although oral health education began from the footstep of awareness, evaluation of its implementation played an important role in the success of the education imparted.<sup>7</sup> Over the past 20 years a significant amount of emphasis had been made on prevention of diseases rather than the treatment aspect.<sup>6</sup> Doifode et al reported that dental caries prevailed about 43.2% in the elderly population of urban Nagpur.<sup>8</sup> Goel et al reported 100% dental caries prevalence in rural Delhi, whereas the national health survey conducted by Dental Council of India (DCI) stated that caries prevalence was 85%.<sup>9,10</sup>

A low percentage of people (39.5%) visited the dental clinic regularly (within 6 months) where as the number of people visiting the clinics for pain were high (60.5%). In this study, we identified numerous factors that influenced treatment-seeking behaviour of participants. Pain was the main reason for a visit to dentist. This had also been reported in other studies.<sup>11</sup> Our study showed that 60.5% of the people visited a dentist when they suffered from pain, which was quite similar to Nabil Al-Beirut's study in 1997, where 69.5% of the participants reported visiting a dentist only when they had pain.<sup>12</sup>

### **Frequency of brushing**

Brushing once a day was the most common routine notice (54%) followed by brushing twice (35%) and thrice a day (11%) (Table 2). Brushing the teeth twice a day was a common finding in females (25%) with respect to the males (10%). The percentage of subjects brushing their teeth twice daily was 35%, which was very less as compared to 58% of the police recruits in a study by Dilip 67% of the Chinese urban adolescents in a study by Jiang et al 62% of the Kuwaiti adults in a study by Al-Shammari et al and 50% of the middle aged and 75% of the elderly Chinese adults in urban areas in a study by Zhu et al.<sup>13-16</sup>

Toothbrush was a more common dentifrice used (66%) in compared to the old traditional datum (34%). 23% said they used a fluoridated toothpaste, 6% used a non-fluoridated tooth paste while the majority 37% didn't notice the whether it was a fluoridated or non-fluoridated tooth paste (Figure 3). 67.5% of people had a habit of looking for bleeding gums often and more during brushing this shows an inclination towards a health periodontal care/hygiene. In this study patients checked for bleeding gums more often as compared to studies done by Tervonen et al and Kallio et al where most of the patients did not notice bleeding from gums.<sup>17,18</sup> Habits such as tobacco use mostly in the form of smoking were

observed more in males (26.5%) than females (3.5%). Tobacco chewing was seen in Males (11%) females (2.5%). In a study done by Gill et al smoking and chewing tobacco were reported in 17.6% male subjects and 4.2% female subjects.<sup>2</sup>

Also, particularly in young age group, specifically in female dental anxiety was a very common factor leading towards negligence to dental visit. The patients became anxious particularly due to any past experience related to dental treatment.<sup>19</sup> Providing dental health care education and improvement of quality of dental care can alleviate the problem.

### **CONCLUSION**

It was observed that the people belonging to urban areas visited dental setup for routine check-up more than the rural population whereas pain was the main reason for people belonging to rural areas. In rural population, negligence, lack of knowledge, and unawareness toward their oral health was seen. Less priority is given to the dental problems since they do not pose a threat to the lives of people. Due of lack of alertness regarding effects of poor dental health on general health, majority of the people neglect the good oral health habits. So, there is a need for spreading awareness which can be achieved by different outreach programs and relevant public health awareness methods through various media.

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