

## ORIGINAL RESEARCH

# Knowledge, Attitude, and Practices Regarding Oral Health among Patients Visiting Dental OPD at Sri Sukhmani Dental College and Hospital, Dera Bassi, Punjab

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## ABSTRACT

**Objectives:** The objectives of this study were to assess the knowledge, attitude, and practices regarding oral health among outpatients of Sri Sukhmani Dental College and Hospital, Dera Bassi.

**Materials and Methods:** A cross-sectional, descriptive survey was conducted among 200 outpatients who were selected through convenient sampling technique. Data on the oral health knowledge, attitude, and practices were collected by means of a self-administered close-ended questionnaire. Descriptive statistics were used for data analysis.

**Results:** Majority, 117 (58.4%) of the subjects brushed their teeth for <3 min, and about 60 (30%) were aware about the fluoridated toothpaste. Only 10 (5%) subjects used interdental devices to clean teeth. A total of 146 (73%) subjects cleaned their teeth regularly and 33 (16.5%) stopped brushing when they noticed bleeding from gums. Tobacco consumption in the form of smoking and smokeless tobacco was observed among 81 (65%) and 42 (34.1%) subjects, respectively. Half of the subjects were unaware about the role of tobacco in oral cancer as well as its impact on general health.

**Conclusion:** The knowledge and attitude regarding oral health in a selected population are low. Systematic community-based oral health promotion should be strengthened, and preventive-oriented oral health care system is the need of the hour including further self-care practices and the use of fluoridated toothpaste.

**Keywords:** Caries, Diet, Disease, Oral health, Premature, Tobacco hazards.

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## INTRODUCTION

Prevalence and severity of dental disease vary from individual to individual and are affected by age, gender, education, and socioeconomic status. Most oral diseases, such as most chronic pathologies in general, are directly related to lifestyle. Oral disease can be considered a public health problem due to its high prevalence and significant social impact. Chronic oral disease typically leads to tooth loss and, in some cases, have physical, emotional, and economic impacts; physical appearance and diet are often worsened, and the patterns of daily life and social relation are often negatively affected. These impacts, in turn, lead to reduced welfare and quality of life.<sup>[1]</sup> Poor oral and dental health has also been linked to heart and lung disease, diabetes, stroke, low-birth weight, and premature births. Often, diseases give their first warning signs in the form of oral problems.<sup>[2]</sup>

A majority of the Indians are unaware of the fact that good oral health not only ensures freedom from pain and suffering associated with oral health problems but is also essential for the overall health improvement and elevation of self-esteem, quality of life, and performance at work.<sup>[3]</sup> Majority of the population in South East Asia region do not have specific trends to visit qualified health facilities. This may be due to socioeconomic and educational factors, but lack of knowledge and false perception are also very important. The evaluation of available information and facilities, attitude, and practices is very important for the provision of proper health-care facilities as they form the baseline of the strategic planning and decision-making.<sup>[4]</sup>

Numbers of features, namely diet, smoking, alcohol, hygiene, stress, and exercise, are linked to a wide range of important diseases forming the fundamental basis of common risk factor approach to prevent a range of conditions including oral diseases. Among these, hygiene is most significant when it comes to the prevention of oral diseases. Little is known about oral health attitude and behaviors and practices among people from developing countries<sup>[5]</sup> and, especially, in this part of our country. Hence, the present study was conducted to assess oral health knowledge, attitude, and practices

among patients visiting the outpatient department of Sri Sukhmani Dental College and Hospital, Dera Bassi, Punjab.

## MATERIALS AND METHODS

The present study is a questionnaire-based cross-sectional survey to assess knowledge, attitude, and practices regarding oral health among patients attending outpatients in Sri Sukhmani Dental College and Hospital, Dera Bassi. A total of 200 (127 males and 73 females) subjects aged from 20 to 68 years with a mean age of  $35.6 \pm 4.8$  years participated and responded to the study. Patients suffering from debilitating disease or maxillofacial trauma, those who were unable to respond to the questionnaire, and those who refused to take part in the study were excluded from the study. Consent was obtained from all the individuals who participated in the study.

The original version of the questionnaire was written in English and had been translated into Hindi. The translation was performed by two independent and expert translators. Finally, another independent translator returned translations, which were further compared with the originals, and the inconsistencies were analyzed and corrected.

The questionnaire was designed to be comprehensible for the patients and was pre-tested among a group of patients (20) who were requested to complete the questionnaire on two different occasions separated by 7 days. The pre-test focused on the patient's ability to understand the vocabulary used in the questionnaire and that the questions were clear and unambiguous. The questionnaire was found suitable for application among the patients as there was high concurrence with the answers to the items on both occasions (Kappa test coefficient for all questions = 0.90). Minor changes were made to certain terminology in the questionnaire before its administration in the actual survey.

The final version of the questionnaire included 24 items and was designed to evaluate the knowledge, attitude, and practices of patients regarding their oral health and dental treatment. The sociodemographic information was also recorded. Assessment of patient's oral health knowledge included items on the reasons for cleaning and not cleaning their teeth, sources of information about oral health, plan of action on seeing gums bleed and signs of decay, adverse effects of tobacco, and also excess sweets.

All patients visiting the OPD were assessed based on the eligibility criteria for inclusion in the study. Those selected were handed over a questionnaire and received instructions on how to score their responses. They were made aware to choose only one answer for the same

item. Furthermore, the researcher was always available during the completion of the questionnaire, and the subjects were encouraged to approach him whenever they needed clarification of any point. Care was taken that individuals did not duplicate each other's answers by asking each one to answer separately maintaining some space between them. Furthermore, care was taken to see that all the items in the questionnaire were answered. Completed questionnaires were collected back and verified for the same. Confidentiality and anonymity of the respondents were assured.

## Statistical Analysis

The data were analyzed using the Statistical Package for the Social Sciences version 19.0 software (SPSS Inc., Chicago, IL, USA). Descriptive statistics were used to summarize the sample and responses of the questionnaire.

## RESULTS

Of 200 respondents, 73 were female and 127 were male respondents. Demographic profile of the study participants including educational level and age of respondents are given in Table 1. Males (63.5%) were more compared with females (36.5%), and 31% were in the third decade. It was creditable to see that around 72% were literates. Habitually, 38% of subjects cleaned their teeth for brightening purpose followed with prevention of foul breath (32%) and bleeding gums (15%). Surprisingly, 15% of the subjects reported that cleaning teeth help in prevention of oral cancer. The main reasons for not brushing teeth were no time (18%) and very tiring (17.5%). Few subjects (16.5%) did not clean as they noticed their gums bleeding while brushing. The main source of oral health information was media (30%) and friends (28.5%). Only 25% of subjects were found to visit a dentist when bleeding occurred from gums. When sign of tooth decay was observed, 35% did not care and 25% went to dentist only after experiencing

**Table 1:** Demographic profile of the study population

Characteristics	Male n (%)	Female n (%)	Total n (%)
Age (years)			
20–30	34 (26.8)	23 (31.5)	57 (28.5)
30–40	42 (33.1)	20 (27.4)	62 (31.0)
40–50	35 (27.6)	23 (31.5)	58 (29.0)
50–60	13 (10.2)	6 (8.2)	19 (9.5)
>60	3 (2.4)	1 (1.4)	4 (2.0)
Education			
Illiterate	35 (27.6)	21 (28.8)	56 (28)
Graduate	71 (55.9)	40 (54.8)	111 (55.5)
Postgraduate	21 (16.5)	12 (16.4)	33 (16.5)
Total	127 (63.5)	73 (36.5)	200

pain. A higher proportion (75%) responded correctly that tobacco causes oral cancer [Table 2].

In the study population, 65% of subjects thought that oral health is as important as general health and 64.5% subjects were of the view that oral health has a relationship with systemic illness. The chief complaint for visit to dentist was pain (36.5%), whereas 51% of them did not go to a dentist as they were afraid of the needle [Table 3].

A total of 73% of subjects clean their teeth regularly. Commonly used aid is toothbrush and toothpaste (67%). Only 18.5% brush their teeth twice daily and 5% use

the interdental device on a regular basis. Majority, 61% change their toothbrush within 2 months, 58.5% brush their teeth for <3 min, 30% use fluoridated toothpaste, and more than half of the respondents cleaned their tongue every day [Table 4].

## DISCUSSION

The knowledge pertaining to oral health among the participants was good as about 65% of the subjects were aware of the harmful effects of excess sweet, cold drink, alcohol consumption, and smoking/pan chewing/gutkha and other tobacco products on oral hygiene. However, these findings were in contrast to a study by Chandrasekhar *et al.* (25%).<sup>[6]</sup> Regarding the source of information on oral health, television was the most common mode with 30% of the participants acquiring information through it; this was consistent with the finding of the other studies.<sup>[5,7]</sup>

In the current study, 25% of respondents visited dentist when they experienced bleeding from gums which was higher and 25.5% of subjects paid

**Table 2:** Distribution of the study population based on knowledge regarding oral health

Questions/Items	Frequency (%)
Reason for cleaning teeth	
To brighten teeth	76 (38)
Prevention of bleeding gums	30 (15)
Prevention of oral cancer	30 (15)
To get rid of foul breath	64 (32)
Reason for not cleaning teeth	
Laziness	30 (15)
Very tiring	35 (17.5)
No time for brushing	36 (18)
Useless, good teeth are heredity based	15 (7.5)
Teeth are not dirty	25 (12.5)
Gums bleed while brushing	33 (16.5)
Dental aids are expensive	10 (5)
Not a habit since childhood	11 (5.5)
Do not know of any benefit from brushing	5 (2.5)
Sources of information about oral health	
Radio and television	60 (30)
Friends	57 (28.5)
Newspaper	41 (20.5)
Community	42 (21)
What will you do if gums bleed?	
Stop brushing	31 (15.5)
Pay more attention when brushing	43 (21.5)
Brush more frequently	43 (21.5)
Go to see a dentist	50 (25)
Never had this problem	22 (11)
Do not know what to do	11 (5.5)
What will you do on seeing signs of decay?	
Just try to cope with this problem	55 (27.5)
Do not care if no pain	70 (35)
Go and see a dentist only when in pain	50 (25)
Go and see a dentist immediately	25 (12.5)
Do you know tobacco can cause oral cancer?	
Yes	150 (75)
No	50 (25)
Do you know sweet foods affect teeth adversely?	
Yes	135 (67)
No	54 (27)
Do not know	11 (5.5)

**Table 3:** Distribution of the study population based on attitude regarding oral health

Questions	Frequency (%)
Do you think it is necessary to create awareness about problems among family member/peer group	
Yes	141 (70.5)
No	42 (21)
Do not know	17 (8.5)
Do you think oral health is as important as general health?	
Yes	130 (65)
No	52 (26)
Do not know	18 (9)
Do you think oral health has relationship with systemic illness?	
Yes	129 (64.5)
No	57 (28.5)
Do not know	14 (7)
Reason for last dental visit	
Dirty teeth	16 (8)
Pain	73 (36.5)
Routine dental checkup	104 (52)
Repair	7 (3.5)
Frequency of dental visit	
Regularly every 6–12 months	105 (52.5)
Occasionally	67 (33.5)
Never	19 (9.5)
Whenever I have a problem	9 (4.5)
Feeling during first dental visit	
Scared and reluctant	101 (50)
Never afraid	64 (32)
Moderately afraid	33 (16.5)
Slightly afraid	2 (1)

**Table 4:** Distribution of the study population based on practices regarding oral health

Questions	Frequency (%)
Do you clean your teeth?	
Regularly	146 (73)
Sometimes	46 (23)
Never	8 (4)
Type of aid used	
Toothbrush	134 (67)
Finger	41 (20.5)
Tree stick	21 (10.5)
Any other	4 (2)
Material used	
Toothpaste	134 (67)
Toothpowder	37 (18.5)
Charcoal	12 (6)
Tobacco	9 (4.5)
Any other	8 (4)
Frequency of cleaning	
Once a day	150 (75)
Twice daily	37 (18.5)
More than twice daily	13 (6.5)
Use of interdental devices	
No	135 (67)
Sometimes	56 (28)
Regularly	10 (5)
How often do you change your toothbrush	
<2 months	122 (61)
2-6 month	60 (30)
>6 month	18 (9)
Time spent for cleaning teeth	
<3 min	117 (58.5)
3 min or more	83 (41.5)
Types of toothpaste used	
Nonfluoridated	95 (47.5)
Fluoridated	60 (30)
Do not know	45 (22.5)
Do you clean your tongue?	
Every day	106 (53)
Sometimes	76 (38)
Never	18 (9)

no attention on sign of decay which was less as compared with the study done by Zhu *et al.*<sup>[8]</sup> As regard to the oral health attitude, it was found that 52.5% of the study population reported visiting a dentist during the past 6 months, which was higher when compared with the study done by Parveen *et al.* where it was 42.5%.<sup>[4]</sup> Dental pain was cited as the most common cause for dental visit during the past 6 months, in 36.5% of participants, as compared to 56.8% of participants in the study by done by Humagain.<sup>[9]</sup>

Oral health practices of the study population were relatively good, with 73% brushing their teeth regularly, and about 67% of subjects used toothbrush and

toothpaste for cleaning teeth. The subjects brushing their teeth twice daily were 18.5% which was very less as compared with other studies: 67% in patients attending Vyas Dental College, India, conducted by Jain *et al.*,<sup>[10]</sup> 67% among Chinese urban adolescents in a study by Jiang *et al.*,<sup>[11]</sup> and 62% of the Kuwaiti adults in a study by Al-Shammari *et al.*<sup>[12]</sup>

A very small proportion of participants, 5%, used interdental device to clean teeth which is almost similar to the result found in the study by Padma *et al.*<sup>[13]</sup> which was 7.6%. In another study conducted by Jamjoom<sup>[14]</sup> in Saudi Arabia, no subjects used floss. The low percentages who use floss in this study emphasize the urgent need for educating and motivating the public to use this efficient method for oral health care.

## CONCLUSION

The knowledge and attitude among subjects in regard to dental health in the present study are satisfactory. For further augmentation, there is a need to educate and motivate people about oral health and related problems beyond the clinics through various outreach programs in the areas, which are less accessible to oral health facilities.

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