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# Assessment of Oral Hygiene Awareness among College Students in Surat City

**Kinner Desai[1], Sugnesh Patel[2]**

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**Author's Affiliation:**
[1]Bharti Vidyapeeth Dental College, Navi Mumbai, India; [2]Reader, Department of Orthodontics and Dentofacial Orthopaedics, Vaidik Dental College and Research Centre, Daman,

**Correspondence**
Dr. Kinner Desai
Kinnerdesai88@gmail.com

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## ABSTRACT

**Introduction:** The mouth is regarded as the mirror of the body and the gateway to good health. Oral health care for the young adult has potential to contribute to the wellbeing of both child and family. Hence, a survey was carried to know the oral hygiene practice awareness amongst the college students.

**Methodology:** By using a predesigned, pretested semi structured, self administered questionnaire, a survey was conducted among 231 college students.

**Results:** Out of the 231 students, 79.4% were males. Majority (63.6%) of the students cleaned teeth, 105 students always used fluoridated toothpaste, one third have habit of snacking between meals, and 34.6% of the students changed their toothbrushes once in 2 months. 61 students had never visited a dentist in their lifetime. Around 43.7% of the students were thought that poor brushing habit is the reason of tooth decay.

**Conclusion**: Knowledge with respect to oral health among the college students of Surat city is adequate; however, an unhealthy snacking habit, over usage of toothbrushes and practicing tobacco habit show the lack of oral health knowledge in these students.

Keywords: Oral Hygiene, College Students, Awareness, Practices, Dental

## INTRODUCTION

Health is a universal human need for all cultural groups. General health cannot be attained or maintained without oral health. The mouth is regarded as the mirror of the body and the gateway to good health.

In the low income countries, the most prevalent oral disease of public health concern is dental caries. The increase in the prevalence of dental caries has been attributed to factors such as high sugar consumption, a shift to westernized diet, socioeconomic status, the rate of urbanization, and the mother's level of education. These factors may be influenced by economic transition. Economic improvement in a low income country like India may have an effect on dental health.[1]

Today, various types of oral health maintenance material have been used and countless number of dental health information programs has been conducted in schools and other settings. However, these efforts will not succeed in influencing of oral health; hence, the attainment of good oral health is based upon the awareness of good dietary habits and oral hygiene practices.[2]

During the past two decades, many industrialized countries have experienced a dramatic decline in dental caries prevalence among students. The reason for the improved oral health are complete but may involve a more sensible approach to sugar consumption, improved oral hygiene practice, fluoride in toothpaste, topical fluoride application, effective use of oral health services, and establishment of school based preventive program.[3]

Oral health care for the young adult has potential to contribute to the wellbeing of both child and

family. Care of primary dentition should be considered as no less important than that of permanent teeth in maintaining esthetic and function, preventing pain and sepsis and promoting well being. It has an additional significance in protecting development of the permanent dentition and preventing malocclusion.[4]

Hence, a survey was carried to know the oral hygiene practice awareness amongst the college students.

## MATERIALS AND METHODS

A predesigned, pretested semi structured, self administered questionnaire, was distributed among 103 students of a private commerce college and 175 students of an engineering college in a Surat city, India. This structured self-administered questionnaire was divided into two parts and contained a total of 16 close-ended questions. The first part consisted of the demographic data. The second part comprised 16 questions about oral hygiene practices.

Only those students present on the day of the study and those willing to participate were included in the study. The students who were not present on the day and those unwilling to participate were excluded from the study. The nature and purpose of the study was explained to the students before the survey. The questionnaire was distributed in their respective classrooms and once answered it was collected. Incompletely filled questionnaires were discarded.

The data of the remaining 231 questionnaires were tabulated and statistically analyzed.

## RESULTS

Out of the 231 students, 79.4% were males with a mean age of 20.92 ± 1.84 years and 21.6% were females with a mean age of 20.94 ± 1.96 years. Majority (63.6%) of the students cleaned teeth daily whereas only 25.5% of the students cleaned teeth two times a day. 105 students always used fluoridated toothpaste whereas 14.7% have never used. 85 had never flossed their teeth. The habit of snacking between meals at a frequency of daily, twice a day, and more than twice a day was 33.3, 21.2, and 33.8% respectively. Nearly 34.6% of the students changed their toothbrushes once in 2 months. 61 students had never visited a dentist in their lifetime. Around 43.7% of the students were thought that poor brushing habit is the reason of tooth decay. Nearly 37.7% of students were of the opinion that lack of proper brushing and flossing can cause bad breath. (Table 1).

**Table 1: Response of students on oral health awareness and practices**

| Questions and Response | Students (n=231) (%) |
|---|---|
| Frequency of brushing in a day | |
| Daily | 147 (63.6) |
| Twice a day | 59 (25.5) |
| Thrice a day | 13 (5.6) |
| After every meal | 12 (5.2) |
| Usage of fluoridated toothpaste for brushing | |
| Always | 105 (45.5) |
| Often | 54 (23.4) |
| Rarely | 38 (16.5) |
| Never | 34 (14.7) |
| Frequency of flossing | |
| After every meal | 34 (14.7) |
| Daily | 53 (22.9) |
| Rarely | 59 (25.5) |
| Never | 85 (36.8) |
| Frequency of snacking habit | |
| Daily | 77 (33.3) |
| Twice a day | 49 (21.2) |
| More than twice a day | 78 (33.8) |
| Never | 27 (11.7) |
| Interval for change of toothbrush | |
| Once in 2 months | 80 (34.6) |
| Once in 3 months | 58 (25.1) |
| Once in 6 months | 63 (27.3) |
| Once in a year | 30 (13) |
| Last dental visit | |
| <6 months | 64 (27.7) |
| Between 6 and 12 months | 43 (18.6) |
| Between 1 and 2 years | 63 (27.3) |
| Never | 61 (26.4) |
| Reason for tooth decay | |
| Gutka chewing | 73 (31.6) |
| Smoking | 37 (16) |
| Improper brushing | 101 (43.7) |
| Having chewing gum | 20 (8.7) |
| Habit of using tobacco products | |
| Yes | 35 (15.2) |
| Yes, used to but I have quit | 40 (17.3) |
| No, I use occasionally | 40 (17.3) |
| Never | 116 (50.2) |
| Cause of bad breath | |
| Food, such as garlic and onion | 77 (33.3) |
| Lack of proper brushing and flossing | 87 (37.7) |
| Hormonal fluctuations | 16 (6.9) |
| Do not know | 51 (22.1) |

## DISCUSSION

Various studies have been conducted to assess the knowledge, attitude, and practices on oral hygiene in students with a background of health sciences.[5-6] Student community all together play a vital role in bringing about a behavioral change in the society.[7] With this in view, the present study was conducted to assess oral

Hygiene related practices and knowledge on side effects of tobacco usage in professional students of a private engineering college. Among these students, 63% cleaned teeth daily which was in con-

sonance with the study by Kumar 7 (66%). A higher percentage (67%) of students cleaned teeth two times a day in studies done by Kakkad et al[8] and Peltzer and Pengpid[9] in comparison to our study (25.4%). Few studies also reported similar observation to ours.[10-12] This may be attributed to the lack of oral health knowledge or negligence due to busy study schedule. About two-thirds of students in this study used fluoridated toothpaste, which was higher than a study done by Doshi et al[18] where 48.5% of engineering students and 58.7% of medical students used fluoridated toothpastes. Approximately 55% of engineering students in North Bengaluru and nonprofessional college students in Chennai believe that toothpastes containing fluoride prevent tooth decay, rendering them stronger.[12] This shows the adequate knowledge of the students regarding the benefits of fluoride in the toothpaste. Dental flosses are useful aids designed specifically to clean the interdental areas.[13] Approximately 63% of students in our study flossed, out of which 37.5% flossed at least daily which was in consonance with the study done in San Francisco,[14] North-East Ontario,[15] and Iraq[4] where 75%, 44%, and over half of the students respectively, used dental floss on a daily basis. Nevertheless, many studies showed that use of dental floss was not very popular.[7,12,16] Almost 40% of students in Bhubaneswar city were in view that lack of proper brushing and flossing is the reason for tooth decay and bad breath. Nearly 88% of students in the present study have a habit of snacking, which is much higher than studies by Kakkad et al[8] (49.60%), Kumar[7] (47%), and Prasad and Shankar[10] (33.7%). This could be attributed to the availability of snacks in the vicinity of the college and long breaks between the classes. Still a minority of students (12%) claimed that they did not have a habit of snacking. On a comparative perspective, studies have shown that a low percentage of dentists also have the habit of consuming sugar-containing snacks.[4-6,17] In the present study, approximately 60% of the students changed their toothbrush within 1 to 3 months in contrast to a higher percentage (80%) seen in engineering and MBA/BBM students of Bengaluru.[16,18] The attitude of regularly changing toothbrush was much lower (10%) in law students of Chennai.[7] This infers that these students are unaware of the fact that prolonged usage of toothbrushes not only decreases effectiveness in cleaning of plaque but also causes trauma to gingival tissue. They should be educated about the importance of changing of toothbrush at regular intervals. Dentists play a major role in maintaining overall dental health. Nearly 28% of the population had at least visited their dentist once in < 6 months which was consistent with the result of studies by Doshi et al[18] and Al-Hussaini et al.[19] Almost 27% of individuals had never been to a dentist, which was in consonance with the study done by Gopikrishna et al[16] among engineering students of Bengaluru. A still lower percentage of students (14.1%) had visited a dentist within 1 year, though 73.9% were in opinion that one should visit a dentist once in 6 months.[12] This reflects the poor awareness among the engineering students regarding early diagnosis of dental caries and periodontal diseases and thereby maintenance of overall oral health.

In a study by Jalilvand et al,[20] 52% of the engineering students chewed tobacco in the form of Paan. Berg et al[21] reported a low rate of smoking (21%) in students majoring in engineering. In our study, almost one third students had a habit of using tobacco products while 80% of students were in view that usage of tobacco causes discoloration of tooth, gum diseases, and increased risk of oral cancer.

This study was limited by the survey design being self-reported behaviors which may have led to over reporting of oral hygiene practices. The psychological and socioeconomic factors were not taken into consideration. Moreover, small sample size of 231 students may limit the generaliz ability of data.

## CONCLUSION

Knowledge with respect to oral health among the college students of Surat city is adequate regarding using fluoridated toothpaste and flosses. However, an unhealthy snacking habit, over usage of toothbrushes and practicing tobacco habit show the lack of oral health knowledge in these students. We, as dental health professionals, should instil a more positive attitude toward visiting a dentist regularly and warn them against the ill-effects of tobacco. Oral health promotion programs providing education regarding proper eating habits, effective maintenance of oral hygiene, and avoiding tobacco usage can go a long run in improving oral health among the students.

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