

## ARA TIRMA MAKALES / RESEARCH ARTICLE

**Oral hygiene practices and habits among dental students and staff in a dental college, India.**

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**ABSTRACT**

**Objectives:** Oral health is an essential component of general health in one's life. Oral self practices care very effective in keeping up one's good oral health from an individual's point of view. Such hygienic conditions prevent many oral diseases from happening or control them from damaging oral health adversely. To investigate the oral hygiene practices and habits among dental students and staff in a dental college.

**Materials and Methods:** A survey with the aid of specially designed questionnaire was made anonymously, in order to assess the oral health behaviour among these people.

**Results:** A number of 425 dental students as well as faculty members were investigated. Only 34.9% of students and faculty members are following oral self health habits strictly. It was also observed that the staff members were very much concerned about oral hygiene rather than students were.

**Conclusions:** Dental students showed lack of knowledge in their oral hygiene practices. The results show that dental students need a lot of awareness in their oral self hygiene. Awareness programmes must be conducted frequently to boost up the oral self hygiene practices among them for many good reasons.

**Keywords:** Oral health, dental professionals, oral hygiene practices and preventive care.

**INTRODUCTION**

Oral health is an essential component of general health in one's life. Dental caries and periodontal diseases are the most common oral health problems in the world.

<sup>1</sup> Poor oral hygiene and untreated oral diseases and conditions can have a significant impact on the quality of life. *Steptoe et al.* defines health behavior as "the activities undertaken by people in order to protect, promote or maintain

health, and to prevent disease.<sup>2</sup> An individual can get rid of oral ill-health with meticulous implementation of oral self care practices.<sup>3</sup> Recommended oral self care includes tooth brushing more than once a day, take food items which have less sugar content and regular use of fluoride tooth paste. Dentists should propagate the importance of oral hygiene and be the model example to others with their oral health behavior in order to get the attention of public towards oral self hygiene practices.<sup>3-10</sup> In this way, the health beliefs and attitudes of dental professionals will not only reflect their oral self-care habits but also influence their patient's ability drastically to take care of their teeth and

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shape the public's oral health education level.

Globally, many studies have proved that peoples of different countries, having knowledge in oral health practices and their attitude, will surely adopt good habits for better oral hygiene.<sup>11-23</sup> However little attention has been paid to the context in which dental professionals undergo motivational and behavioural changes with respect to their oral self care regimens. Therefore, the present research aims at investigating oral hygiene practices and habits among the dental students and the staff in a dental college.

### MATERIALS AND METHODS

A study was carried out among 425 dental students and staff in a dental college. After obtaining ethical clearance from the authorities concerned, a survey using a self-assessed questionnaire, was made anonymously among these select persons to inquire into their oral health behaviour, preventive care measures and, oral health perceptions about using tobacco and its products.

In the process of inquiry, first, these persons were asked to fill up the questions about oral health behaviour which includes oral hygiene practices (questions 1-4),

preventive care in the form dental attendance and number of decayed teeth present (questions 5-7) and oral health concepts in relation to the use of tobacco and its products (questions 8 and 9). All the data was collected and later analyzed statistically with SPSS 14 software.

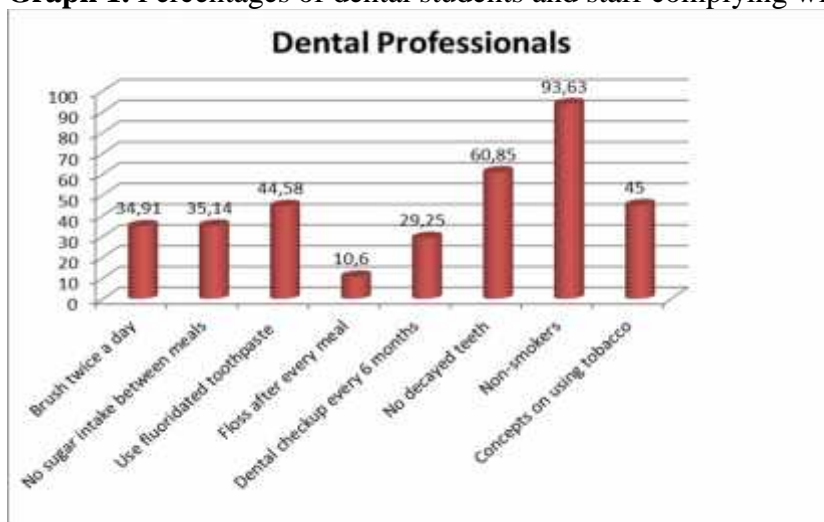
### RESULTS

In the category of oral health behaviour, 34.91% of the dental students and staff, reported that they brushed twice daily and 35.14% of them, reported that they rarely or never had sugar containing snacks or drinks between the meals. 44.58% of the dental students and staff, regularly used a fluoridated tooth paste for brushing, while only 10.6% of them, reported that they flossed after every meal.

Considering the attendance, 29.25% of the dental students and staff, reported that they went for a dental check up every 6 months and about 60.85% of them, had no decayed teeth.

When inquired about the usage of tobacco, 93.63% of the dental students and staff, were found to be non-smokers and 49.06% of them strongly agreed that they were aware of the ill-effects of tobacco smoking or chewing (Graph 1).

**Graph 1.** Percentages of dental students and staff complying with oral health behavior.



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**QUESTIONNAIRE****QUALIFICATION: BDS – I; II; III; IV; INTERN****MDS – I; II; III****STAFF – BDS; MDS**

1. How often do you brush teeth?
  - a) Once daily
  - b) Twice daily
  - c) After every meal
  - d) Once a week
2. How often do you usually eat a sugar containing snack or drink (other than tea and coffee) between your meals?
  - a) Once daily
  - b) Twice daily
  - c) More than twice daily
  - d) Rarely or never
3. Do you use fluoridated toothpaste while brushing?
  - a) Always
  - b) Quite often
  - c) Seldom
  - d) Never
4. How often do you usually floss your teeth?
  - a) Occasionally
  - b) Once daily
  - c) After every meal
  - d) Never
5. How often do you go for a dental checkup?
  - a) Once in 6 month
  - b) Once in a year
  - c) When there is a problem
  - d) Never
6. When was your last dental checkup?
  - a) Less than 6 months ago
  - b) Within 6-12 months
  - c) Between 1-2 yrs
  - d) Never/ I don't remember
7. Number of decayed teeth?
  - a) None
  - b) 1-4
  - c) 5-9
  - d) More than 9
8. Do you use tobacco products?
  - a) Yes
  - b) I used to, but I have quit
  - c) No
  - d) I use occasionally
9. Do you agree with the following consequences of tobacco and its usage?

Discoloration of teeth, gingival color changes, changes in oral mucosa, greater gingivitis and periodontitis, impaired healing of periodontitis, smoking increases risk of oral cancer, use of smokeless tobacco increases risk of oral cancer, heavy smoking impairs periodontal host response, heavy smoking impairs oral health.

  - a) Strongly agree
  - b) Agree
  - c) Neither agree nor disagree
  - d) Disagree
  - e) Strongly disagree

### Relationship between education levels and oral health behaviour

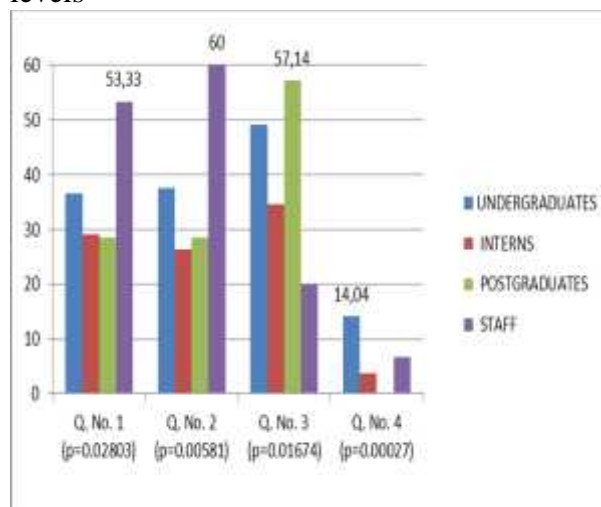
When relating the levels of education and oral health behavior, varying results were observed. The percentage of those who brushed twice daily and those who rarely or never had sugar intake between the meals was high among staff, with significant  $p$  values of 0.02803 and 0.00581 respectively. The percentage of the dental professionals who regularly used a fluoridated toothpaste was high among postgraduates with a significant  $p$  value of 0.01674. The percentage of those who flossed their teeth after each meal was high among undergraduates with a significant  $p$  value of 0.00027 (Graph 2).

Looking into the aspect of dental attendance, the percentage of those who went for a dental checkup every six months was high among staff, with a significant  $p$  value of 0.02362. No significant values were obtained with respect to the decayed teeth or the oral health concepts of tobacco usage (Graph 3).

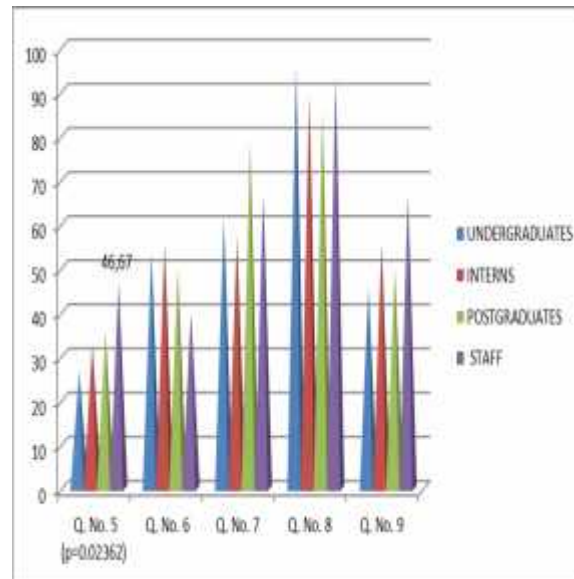
### DISCUSSION

Developing countries show lack of awareness and poor oral hygiene habits among large sections of the population, increasing the risk of oral health problems.

**Graph 2.** Correlating 1-4 with education levels



**Graph 3.** Correlating questions 5-9 with education levels.



Since dentists are expected to be role models to their patients, the evaluation of oral health behaviour of dentists will invariably influence their advice to their patients in their oral self care practices. Keeping this valid reason in mind, the present research was chiefly done considering the oral health behaviour and concepts among dental students and staff.

In the present study, the percentage of dental professionals who brushed twice daily was considerably low when compared to the findings of the studies done in Mongolia, United States, and India.<sup>3,24-26</sup> The percentage of dental professionals who never had sugar intake between the meals was almost similar, while the percentage of those who used a fluoridated tooth paste was less when compared to the Chennai and Mongolian dental professionals.<sup>3,24</sup> Use of dental floss was very low, close to that of dental professionals in Chennai, but varied considerably from the dental professionals of United States.<sup>3,25</sup> Even though the usage of dental floss was low, 60 percent of dental students and staff reported that they did not suffer from decayed teeth. This was very close to the findings among

Indians (Chennai and Rajasthan states) and Mongolian dental professionals.<sup>3, 24, 26</sup> The percentage of dental professionals who went for dental check up every 6 months was close to that of Mongolian dentists and less than that of dental professionals who belong to Chennai.<sup>3, 24</sup> Present study also revealed that majority of the dental students and staff were non smokers whose percentage was higher than that of Chennai and Saudi Arabia. Only 50% of these persons agreed to the fact that tobacco usage was fatal to oral health hygiene, scoring less than that of Chennai dental professionals.<sup>3, 27</sup>

When trying to evaluate the relation between oral health behaviour, preventive care and education level, staff scored high over undergraduates, interns and postgraduates that suggests an increase in the knowledge of oral health behaviour with an increase in the level of education similar to the findings of the studies done among European and Israel dental professionals and contrast to those of Rajasthan dental professionals where no significant change in the oral health behaviour was reported with an increase in the level of knowledge.<sup>2, 28, 29</sup> The findings of the present study emphasize that dental students need to be given practical knowledge through appropriate education in order to increase their awareness in the knowledge of oral health behaviour.

However, the number of dental students and staff who used fluoridated toothpaste was high among postgraduates and the number of those who floss after every meal was high among undergraduates. This disparity can be attributed to differences of opinion in oral self care hygiene practices, as a consequence of the present educational setup. Therefore, these results shall be considered valid only for our study sample.

In conclusion, our study revealed an increase in the knowledge of oral health behaviour and preventive care, as the education level increased. However, the

overall percentage of the persons who follow the recommended self care can still be improved. For all these positive changes, the curriculum has to be designed in such a way that it caters to the needs of health education and oral health promotion. All this is with reference to dental students, the future oral health providers, who pave the way for better society in the creation of better oral hygienic conditions.

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