



## KNOWLEDGE, BEHAVIOUR AND ATTITUDE REGARDING PREVENTIVE ORAL HEALTH CARE AMONG DENTAL STUDENTS IN SAVEETHA DENTAL COLLEGE

### Dental Science

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### ABSTRACT

**Introduction:** Dental students are the future leaders in oral health care and are expected to be teachers of oral hygiene as well as role models of self-care regimens for their parents, patients and friends.

**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 point of view. The aim of the study was to investigate the knowledge and attitude about oral hygiene practice among dental students in a private dental college.

**Materials and methods:** A self-administered questionnaire was distributed to 100 dental students. The questionnaire was completed anonymously by the students.

**Results:** The responses to the questionnaire were collected and the percentages were calculated. Only around 25% of students brushed twice a day, 30% of the respondents visit their dentist regularly and 86% agree that general body health has a relationship to oral and health diseases.

**Conclusion:** The present study shows that the awareness of oral hygiene is quite satisfactory among the dental students.

### KEYWORDS

Dental students, oral hygiene, knowledge, attitude, behaviour, private dental college.

#### 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 (1). Oral hygiene has been considered as a risk indicator, risk factor and risk predictor for various oral problems and access to oral health is a complex issue involving barriers as diverse as inability to afford services to cultural preferences, from lack of adequate services to technological setbacks (2).

Good oral health is essential for overall health and as such has a positive impact on physical, mental and social wellbeing. Oral hygiene is a significant factor in oral disease prevention. Poor oral health can cause pain, interrupt sleep, affect the ability to consume a healthy diet, has an impact on social interaction and cause difficulty with speech. Also, it can adversely affect other health conditions. For instance, periodontal disease may contribute to cardiovascular disease, low birth weight, aspiration pneumonia, and nutritional deficiencies in children and elders (3).

Oral self-care practice is an effective preventive measure for maintaining good individual oral health which is an integral part of one's general health (4). For dental health professionals, their health beliefs and attitudes not only affect their oral self-care habits but may also potentially influence their ability to motivate patients to undertake preventive oral health measures (5).

The dental institutions are an integral part of the oral health care system in India. They help train the future professionals and expand scientific knowledge through research. They prepare the dental students to meet all the needs of the entire community. The dental schools are places where individual responsibility for self oral care is developed among the dental students which directly have a positive effect on the oral health awareness of the community as a whole. Oral health knowledge is considered to be an essential prerequisite for health-related behaviour (2).

Therefore, acquiring knowledge, attitudes and behaviour related to dental health and prevention of oral diseases is especially important during the future dentists' training period. Although oral health knowledge does not necessarily relate to better health behaviour, people who have assimilated this knowledge and feel a sense of personal control over their oral health are more likely to adopt self-care practices (3).

#### Materials and methods:

All Undergraduate dental students from a private dental college were invited to participate in this survey using a self-administered structured questionnaire.

The questionnaire included 20 items which has both close-ended and open-ended questions designed to evaluate the oral health knowledge, attitude and behaviour of the students.

**Oral health knowledge:** 7 questions on oral health knowledge : What does gum bleeding mean, How do you protect yourself from gum bleeding, What does plaque mean, What does dental plaque lead to, Carious teeth can affect teeth appearance, Sweets affect the teeth adversely, Using fluoride strengthens the teeth.

**Oral health attitude:** 7 questions on attitude : How often do you visit your dentist, I put off going to the dentist until I have toothache, Regular checkups will help prevent dental problems,

**Oral health behaviour:** 6 questions on behaviour : How often do you brush your teeth?, What do you use for cleaning your teeth?, When do you brush your teeth?, For how long do you brush your teeth?, I don't feel I have brushed well unless I brush with strong strokes, I worry about having bad breath.

The students were asked to respond to each item according to the response format provided in the questionnaire.

The students received a full explanation of how to fill in the questionnaire. Furthermore, the investigator was always available during the completion of the questionnaire and the participants were encouraged to approach the investigator whenever they needed clarification of any point. The survey was completed anonymously and no personal data, demographics, academic records and performance of the students was collected.

#### Result:

From a total of 110 dental students 100 students (90%) filled out the questionnaire. 10 students chose not to participate. There were 10 (9.09%) male students and 90 (81.8%) female students who participated in this study.

#### KNOWLEDGE OF PREVENTIVE ORAL HEALTH CARE (questions 7-10, 14-16)

Around 78% of the answers were correct for the cause bleeding gums which was inflammation of gingiva while 13% thought it meant gingival recession and 5% had no knowledge about the cause of bleeding gums.

42% of students protect themselves from bleeding gums by using toothbrush paste and dental floss, while 43% use vitamin C supplements, and 12% responded that they have no idea how to protect themselves from bleeding gums.

Around 83% had the knowledge that plaque meant soft debris on teeth , while 7% responded that it was hard debris on teeth and 6% responded that they did not know what plaque meant.

77% responded that dental plaque leads to inflammation of the gums while 9% felt that it leads to staining of teeth and 10% responded that they did not know.

91% responded that carious teeth can affect teeth appearances, while 9% disagreed.

83% agreed that sweets affect teeth adversely while 17% denied that.

82% believed that using fluoride strengthens teeth and 18% disagreed.

**ATTITUDE TOWARDS PREVENTIVE ORAL HEALTH CARE: (questions 11-13 , 17-20)**

30% of the respondents visit their dentist regularly, 29% visit occasionally and 15% have never visited a dentist and 26% visit only when they have dental pain.

Majority of the respondents (92%) agree that regular checkups prevent dental problems , but 60% of them putt off going to the dentist until they have toothache.

82% agree that dental visits are important for those without teeth and/or denture.

78% responded that dentists always explain the problem and solve it, while 22% disagreed.

86% agree that general body health has a relationship to oral and health diseases.

At least 89% care about their teeth as much as any part of the body.

**BEHAVIOUR TOWARDS PREVENTIVE ORAL HEALTH CARE:**

2% of students brush less than once per day, 72% of students brushes once a day, 25% of students brushes twice a day and 1% of students brushes more than twice per day.

Out of 100 respondents , 91% use brush and toothpaste for cleaning the teeth , while 4% use mouthwash and 5% use other means like tooth powder, neem stick and finger for teeth cleaning.

78% of students brush their teeth early in the morning while 6% brush before going to bed and 16% brush like morning ( after breakfast) and evening.

Around 40% of the students spend one minute to brush their teeth , while 32% spend two minutes and only 7% percent brush their teeth for more than two minutes with 21% spending less than one minute on brushing.

A significant 75% responded that they dont feel they have brushed well unless they have used strong strokes

Only 55% of respondents were worried about having bad breath while the remaining 45% weren't too concerned about bad breath.

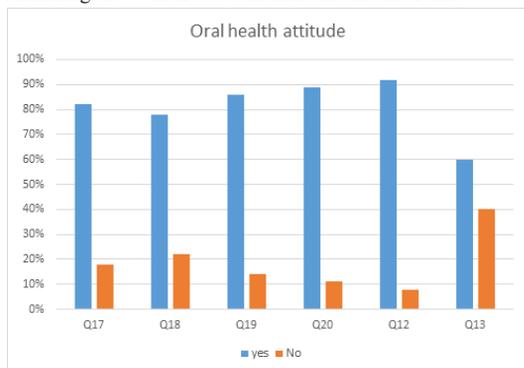
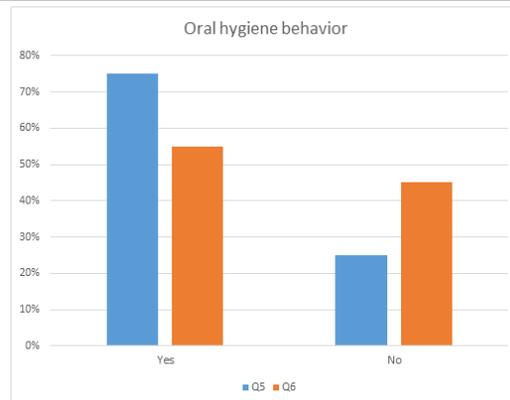


Figure 1



**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. 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.

The study was conducted among third year dental undergraduates in a private university. This study found that a high percentage of the students brush their teeth at least once daily. The subjects also reported irregular times of tooth brushing. The study sample showed awareness of gingival bleeding as an indicator of periodontal disease (represented by gingivitis). A majority of the study population established the link between gingivitis to dental plaque and could recognise the role of toothbrushing in treating gingivitis.

About 78 percent of the study population was aware that gingival bleeding reflects gingivitis, while the rest either did not know or gave wrong answers such as gingival bleeding reflects healthy gingiva or gingival recession. Around 42 percent of the sample knew that brushing and flossing help to prevent gingivitis and 43 percent responded that using vitamin C protects against gum bleeding while the rest either did not know or reported wrong answers such as using soft food as a preventive measure for gingivitis. 83 percent of the study population knew the significance of dental plaque, while the rest either did not know or reported wrong answers such as tooth discolouration.

Approximately 91 percent were aware that carious teeth and dental caries affect dental aesthetics. Only 9 percent of the subjects were aware of the link between dental plaque and caries. Most subjects were aware that sweets (83 percent) have a negative impact on dental health. Most subjects showed awareness about the importance of positive effects of fluoride on the dentition (82 percent).

Approximately 86 percent of the students were aware of the relationship of general body health to the oral and dental structures, while 81 percent cared about teeth as much as any other body part.

Many subjects (60 percent) reported that they visited the dentist only when they felt pain. Only 30 percent of the study population reported that they were visited their dentist regularly although 92 percent of the students were aware of the importance of regular dental visits. About 15 percent of the respondents never or rarely visited a dentist.

**CONCLUSION :**

Oral health knowledge is considered to be an essential prerequisite for health-related behaviour (8) ,

although only a weak association seems to exist between knowledge and behaviour in cross-sectional studies (9,10). Nevertheless, studies have shown that there is an association between increased knowledge and better oral health (11,12). Although oral health knowledge does not necessarily relate to better health behaviour, people who have assimilated this knowledge and feel a sense of personal control over their oral health are more likely to adopt self-care practices (13). It is the responsibility of dental students to assimilate proper knowledge , attitude and behaviour towards preventive oral health care. 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.

#### APPENDIX 1

Q1. How often do you brush your teeth?

1. Less than once per day. 2. Once per day.
3. Twice per day. 4. More than twice per day.

Q2. What do you use for cleaning your teeth?

1. Brush + toothpaste. 2. Dental floss.
3. Mouthwash. 4. Toothpicks.
5. Others (specify).....

Q3. When do you brush your teeth?

1. Morning. 2. Noon (after lunch).
3. Before going to bed. 4. Other times (specify).....

Q4. For how long do you brush your teeth?

1. Less than one minute. 2. One minute.
3. Two minutes. 4. More than two minutes

Q5. I don't feel I have brushed well unless I brush with strong strokes. Yes/no

Q6. I worry about having bad breath. Yes/no

Q7. What does gum bleeding mean?

1. Healthy gum. 2. Inflamed gum.
3. Gum recession. . 4. I do not know.

Q8. How do you protect yourself from gum bleeding?

1. Using toothbrush, paste & dental floss. 2. Using soft food.
3. Using vitamin C. 4. I do not know.

Q9. What does plaque mean?

1. Soft debris on the teeth. 2. Staining of the teeth.
3. Hard debris on the teeth. 4. I do not know.

Q10. What does dental plaque lead to?

1. Inflammation of the gum. 2. Staining of the teeth.
3. Dental caries. 4. I do not know.

Q11. How often do you visit your dentist?

1. Regularly every 6-12 months. 2. Occasionally.
3. When I have dental pain. 4. I never visited a dentist.

Q12. Regular checkups will help prevent dental problems. Yes/no

Q13. I put off going to the dentist until I have toothache. Yes/no

Q14. Carious teeth can affect teeth appearance. Yes/No

Q15. Sweets affect the teeth adversely. Yes/No

Q16. Using fluoride strengthens the teeth. Yes/No

Q17. Dental visits are important even for those without teeth and/or dentures. Yes/no

Q18. Dentists always explain the dental problem and solve it. Yes/No

Q19. General body health has a relationship to oral and dental diseases. Yes/No

Q20. You care about your teeth as much as any part of your body. Yes/No

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