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# Oral Hygiene Awareness among Two Non Professional College Students in Chennai, India- A Pilot Study

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## Introduction

"Oral Health for Healthy life" the theme for World Health Day by WHO for 1998 (1).No one can be truly healthy unless he or she is free from the burden of oral and craniofacial diseases and conditions (2). Oral health diseases are detrimental to the quality of life during childhood through old age and can have an impact on self-esteem, eating ability, nutrition, and health. They are associated with considerable pain, anxiety, and impaired social functioning (3.4). Among the dental disease, dental caries and periodontal problem is of more prevalence and it is an important component of global disease burden. Dental disease preventions depend upon the involvement of community, professional and individual.

Oral health of an individual depends upon awareness and attitude .Attitudes naturally reflect their own experiences, cultural perceptions, familial beliefs, and other life situations and has a strong influence on oral health behaviour (5). Several recent studies concern the oral health attitudes and behaviours of young adults and the relation between their attitudes and behaviours and their dental or oral status, (6,7) Oliveira et al. report that children with inadequate oral health knowledge are twice as likely to have caries than children with adequate knowledge. Studies have shown that there is an association between increased knowledge and better oral health (8,9).The objective of this study was to evaluate the oral health knowledge and oral health behaviour among the nonprofessional college students in Chennai with help of questionnaire adopted from Peterson et al. (18) and Stenberg et al.(19)

## Materials and method

A questionnaire containing 25 questions was distributed among the 219 undergraduate non-professional students of two colleges in Chennai city during the academic year 2009 -2010. The response rate was 70% (n =219 ). The questions consisted information on the general background, dental hygiene habits and oral health knowledge. The age group of the study population were 18-21 yrs.

**Background**: age (18–21 years); marital status (single); nationality (Indian); years in College (one year, two or more years); financial status (satisfactory, not satisfactory); dental disease (yes, no/don't know).

**Oral health knowledge:** awareness of dental caries, effect of soft drinks on caries, occurrence of periodontal diseases, role of fluoride in toothpaste.

Oral health behaviour: hard bristles), the amount of toothpaste applied on toothbrush, use of fluoridated toothpaste and mouth rinse. Subjects were asked to answer it was assessed with the history of last dental visit (Within One year /More than one year ago / ≥ two years ago / Never) purpose of dental visit (examination/prevention, treatment), tooth brushing frequency (once a day, twice a day , more than twice a day), mode of brushing. Kind of tooth brush used (medium /soft /hard/very the questions based on the options given to each question. Response formats included forced choice format in which subjects choose one or more responses from a provided list of options. Explanations of the questions were provided to required subjects. One investigator was always readily available till the completion of questionnaire for clarification. Descriptive statistics were obtained and means, standard deviation, and frequency distribution were calculated. Data analysis was done with Statistical Package for Social Science (SPSS 19.0, Inc., and Chicago, IL).

## Results

Brushing habits of the study population were at least once a day (85.3%), 14.6% twice a day and 0.9% thrice a day. Approximately 45 % of samples were using medium sized bristles, 27 % hard bristles and 24 % soft bristles tooth brush. Tooth paste were being used by 51 % of samples , 38 % uses tooth powder and 10 % brick powder .49% of tooth paste used were fluoridated. Amount of tooth paste used for brushing were more than half of the tooth brush( 42% ), half of the tooth brush (33% ), less than half of the brush (16.4% ), just a speck (

 

1.3% ). Most of the study population had not even once visited the dentist (58.4%). Rest of the study population visited dentist for prevention (24.6%), examination (8.6%), filling /extraction (11%) and special treatments such as endodontic, prosthodontics, orthodontics (3.1%). 48 % of parents of the study population insisted on dental treatment.

**TABEL 1: Oral health attitude**

| **Questionnaire** | **Frequency** | **Percentage** |
|---|---|---|
| **Last time when did you visited a dentist?** Within One year | 31 | 14.1 |
| More than one year ago | 41 | 18 |
| ≥ two years ago | 19 | 8.6 |
| Never | 128 | 58.4 |
| **What was the purpose of your visit?** | | |
| Examination | 19 | 8.6 |
| Prevention | 54 | 24.6 |
| Need for a filling/extraction | 11 | 5 |
| Special treatment i.e.Endodontics, Prosthodontics, orthodontics | 7 | 3.1 |
| Not answered | 128 | 58.4 |
| **It is essential that one meets a dentist every 6 months** | | |
| Yes | 162 | 73.97 |
| No | 31 | 14.1 |
| Dont know | 26 | 11.8 |
| **Do your parents insist on dental health?** | | |
| Yes | 102 | 46.5 |
| No | 106 | 48.4 |
| Dont know | 11 | 5 |

Regarding the oral health knowledge, approximately 40 % of students knew that caries is a dental disease and 54% were aware of soft drinks causing caries. Most of the study population (90%) were aware of brushing twice daily with proper tooth brush is very essential for good oral hygiene. 21% percentage of students was aware that fluorides in tooth paste prevent caries.

 

**TABEL 2: Oral health awareness**

| **Caries is a type of** | Frequency | Percentage |
|---|---|---|
| Dental career | 10 | 4.5 |
| Dental disease | 88 | 40.1 |
| Tooth paste | 33 | 15.06 |
| Name of a Dentist | 67 | 30.5 |
| Not answered | 21 | 9.5 |
| **Fluoride is added to toothpaste because of** | | |
| Pleasant taste | 33 | 15.06 |
| Soft feeling | 94 | 42.9 |
| Prevents caries | 46 | 21 |
| Lesser price | 9 | 1.3 |
| Don't know | 37 | 16.8 |
| **Do you have bleeding gums?** | | |
| Daily | 0 | 0 |
| Sometimes | 24 | 10.9 |
| Only during brushing | 16 | 7.3 |
| Never | 47 | 21.4 |
| Not answered | 132 | 60.2 |
| **It is essential to brush the teeth twice a day** | | |
| Yes | 197 | 89.9 |
| no – 16 - 7.3% | 16 | 7.3 |
| **It is essential to gargle after taking food** | | |
| Yes | 199 | 90.8 |
| no | 10 | 4.5 |
| Dont know | 10 | 4.5 |
| **It is important to choose the right tooth brush** | | |
| Yes | 197 | 89.9 |
| No | 8 | 3.6 |

 

| | | |
|---|---|---|
| Dont know | 14 | 6.3 |
| **Toothpaste which has fluoride prevents caries of teeth** | | |
| Yes | 120 | 54.7 |
| No | 37 | 16.8 |
| Dont know | 62 | 28.3 |
| **Cool drinks cause dental caries.** | | |
| Yes | 117 | 53.4 |
| No | 46 | 21 |
| Dont know | 56 | 25.5 |
| **Do you experience bad breath (bad odour) from your mouth?** | | |
| Yes | 46 | 21 |
| No | 115 | 52.5 |
| Dont know | 58 | 26.4 |

About 91% of samples knew the importance of gargling mouth after each intake of food. Only 17 % of study population uses tooth picks. 21% of samples experiences bad breathe. Mouth fresheners were used by 32% population. Importance of visiting dentist once in every six months was known by 74% of population.

**TABEL-3: Oral hygiene habits**

| **How many times do you brush your teeth daily?** | **Frequency** | **Percentage** |
|---|---|---|
| Once a day | 187 | 85.3 |
| Twice a day | 35 | 14.6 |
| Three times a day | 2 | 0.9 |
| More than three times a day | 0 | 0 |
| **With which of these do you use to brush your teeth?** | | |
| Tooth paste | 112 | 51.1 |
| Tooth powder | 84 | 38.35 |
| Ash/Brick Powder | 21 | 9.5 |
| Salt | 2 | 0.9 |
| **What kind of brush do you use?** | | |
| Soft Bristles | 52 | 23.7 |

 

| | | |
|---|---|---|
| **Do you have the habit of using tooth picks often?** | | |
| Yes | 37 | 16.8 |
| No | 161 | 73.5 |
| Dont know | 21 | 9.5 |
| Medium Bristles | 98 | 44.7 |
| Hard Bristles | 61 | 27.8 |
| Very hard Bristles | 8 | 3.6 |
| **How much toothpaste do you apply to a toothbrush?** | | |
| Less than half the brush | 13 | 16.4 |
| Half | 73 | 33.3 |
| More than half | 92 | 42 |
| Just a speck | 3 | 1.3 |
| Not answered | 15 | 6.8 |
| **Do you regularly use a mouth freshener?** | | |
| Yes | 69 | 31.5 |
| No | 127 | 57.9 |
| Dont know | 23 | 10.5 |

**Discussion**

Preventive oral health education is in transition stage in India. Oral health knowledge creates a sense for each individual to adopt self-care practices but it is not necessarily related to better health behaviour (12). In India Television Media reaches rural and urban areas. It plays the major role in creating oral health awareness. Paik DI et al in 1990 and Soh. G in 1991also said that television to be the best source of information as it is seen by all the members of the family. Hence Oral health knowledge was expected to be good among college students in this study. This study presented a comprehensive overview of the oral health behaviour, knowledge, and attitudes of non-professional college students. Oral hygiene habits that are to be adopted are brushing the tooth twice a day with fluoridated tooth paste and to clean the proximal surfaces of the teeth dental floss and mouth rinses have been recommended [ 13,14]. In this study there are only a very few population approximately less than 20% who follows the above said oral habits but most of the students are aware about the oral hygiene habits such as twice a day brushing and gargling of mouth after each intake of food whereas in United States about 90% of studied population follow these hygiene habits. Flossing does not seem to be a well-known habit (16) and it coincides with this study. There were also students approximately 10 % using brick powder for brushing in contrast use of miswak of about 81%-99% was seen in Saudi urban area (20).

More than 70 % of population uses tooth paste more than half of tooth brush but pea size amount is recommended. This can be attributed to false perception of population that larger amount of tooth paste improve the effect of tooth paste and also to advertisements of tooth paste manufactures. About 60% of the study population have not yet once visited the dentist and awareness to meet the dentist once in 6 months is for 90% of study population whereas in a study conducted by Maryln et al 1999, 69.7 percent of the study population reported having had a dental check-up at least once a year in the past five years (15). The knowledge of caries being a dental disease is only for 40% of population it shows a very low level of awareness. Very low level of accurate knowledge about fluorides preventing caries and also the soft drinks cause it coincides with the results given by Dai-ll Paik et al 2007 on Korean population.

 

**Potential limitation**

This study consists of self-reporting data which depends upon varying levels of language ability and familiarity in completion of questionnaire which would have influenced the selection of response. Misinterpretation and misunderstanding of questionnaire items would have occurred. The questionnaire was pretested with positive results and an investigator was readily available to clarification till the completion of questionnaire.

**Conclusion**

The above study shows that there is lack in appropriate oral health education even among literates. This pilot study gives information regarding the present scenario prevailing in Chennai. Further investigations are required in large quantity for understand more accurately and employ in the public health education for the welfare of the people. The need of the hour is to educate and spread the education about dental care through dentist, media and outreach public health programme to make the individual and the society healthy

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