Assessment of Oral Hygiene Knowledge, Attitude and Practice among 13-17 Years Old Children

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Abstract
Aim: The aim of the study was to assess the knowledge, attitude and practices of oral hygiene among children.
Objective: The questioner study was conducted to determine the oral health related knowledge, attitude, and practices based on the gender and age among 13-17 years old children.
Material And Method: A cross-sectional descriptive study was conducted in children attending outpatient clinic in Saveetha Dental College and Hospital. The survey is done in 200 children under the age group of 13-17 years. Pre-tested structured closed-ended questionnaire, comprising of multiple choice questions, was self-administered to assess their knowledge, attitude, and practices toward oral hygiene. On the basis of the responses received through questionnaires, the data obtained were analysed by using statistical data.
Conclusion: This study presented a inclusive overview of oral health-related knowledge, attitude, and practices among 13-17 years old children's who were reported to dental clinic. The knowledge about the oral hygiene was acceptable. Knowledge about dental floss and practice of oral hygiene was inadequate.
Keyword: oral hygiene, discolouration, attitude, fluoride, plaque, calculus.

INTRODUCTION
Oral health is the standard of health which enables an individual to eat, speak and socialise without active disease, discomfort or discomfiture and which contributes to general welfare. It has been established that optimal health cannot be attained or maintained independent of oral health. Oral hygiene is the typical standard for good oral health maintenance. The oral hygiene care procedures are major constituent in students’ health educational programs and incorporate a complex of activities, targeted to reduce and limit dental plaque accumulation. The plaque accumulation control aims at limiting and preventing the development of dental caries. Oral disease qualify as major public health problems owing to their higher incidence and significant social impact. Improvement in oral health-related knowledge is considered to be an essential precondition for improving oral health in a community. The primary
concern of the dental professional should be to impact a positive oral health, knowledge, and behavior in the society [12]. Knowledge attainment regarding oral health involves complex cognitive processes, perception, learning, communication, association, and reasoning [13]. Spectacular change in the trend of oral diseases may be attributed to modification in the dietary habits, improved in oral hygiene practices, effective use of fluorides, and establishment of community preventive programs. Along with this, a remarkable improvement in the level of oral health awareness, dental health knowledge, and attitudes among the young adults in developed countries had cited as an important contributing factor for improved oral health [14]. The young children’s play a vital role in health promotion and preventive information spreading among the family and their society. It is therefore important that their own oral health knowledge is good. Apart from that, their oral health attitude and practices conforms to the expectation of the population. These 13-17 years old youngsters are filled with passionate quests for intimate relationships and other major commitments involving career and life goals. They encounter a number of issues of late teenage, i.e., peer pressure, change in food habits that cumulatively affects oral health. Hence, the purpose of this study was to assess the knowledge, attitude, and practice of oral hygiene among 13-17 years old children who were reported to dental clinic.

MATERIALS AND METHOD
The present study was an observational, descriptive, cross-sectional survey. A cross-sectional descriptive study was conducted in children attending outpatient clinic in Saveetha Dental College and Hospital. The survey was done in 100 children under the age group of 13-17 years. Pre-tested structured closed-ended questionnaire, comprising of multiple choice questions, was self-administered to assess their knowledge, attitude, and practices toward oral hygiene. Questionnaire consisted of 20 multiple choice questions to evaluate knowledge (5 questions), i.e., how do they notice tooth decay, role of fluoride in preventing tooth decay, where do they learn on oral health, etc., attitude (4 questions), i.e., importance of oral health, why should one take care of teeth and gingiva, how often one should visit dentist etc., and practices (11 questions), i.e., brushing frequency and duration, period of changing of toothbrush, use of adjunct oral hygiene aids, frequency of eating sweets, etc. The students received a full explanation on how to fill in the questionnaire. It was made sure that none of the questions were left unattempted. The students were asked to fill in the questionnaire. On the basis of the responses received through questionnaires, the data obtained were analysed by using statistical data. The total number and percentage were calculated and it was then analysed.

QUESTIONNAIRE
ASSESSMENT OF ORAL HYGIENE KNOWLEDGE, ATTITUDE AND PRACTICE AMONG CHILDREN.
Name: Age: Sex:

1. How many permanent teeth are there in adult’s mouth?
A. 20 B. 28 C. 30 D. 32

2. If there is a yellow or brownish yellow discolouration near tooth/gum, what is it?
A. Food particles B. Calculus/tartar C. Stains D. Don’t know

3. If there is bleeding from gums while brushing, what is it?
A. Gums are healthy B. Gums are unhealthy C. Gums are infected

4. How do you notice tooth decay?
1. A. Black spot and hole in the tooth  
   B. Bleeding from gums  
   C. Pain  
   D. don't know

5. Fluorides prevent dental decay? 
A. Agree  
B. Disagree  
C. Don't know

6. Where do you learn on oral health? 
A. Media (TV, radio, internet)  
B. Print media (newspaper, magazine)  
C. Others

7. Do you think, oral health is important for overall health? 
A. Yes.  
B. No

8. Do you feel, dental treatment is expensive 
A. Yes.  
B. No

9. Why should you take care of teeth and gums? 
A. To improve looks  
B. To reduce future dental treatment  
C. To keep the teeth as long as possible  
D. To prevent bad breath

10. How often should you visit the dentist? 
A. Once in a 6 months  
B. Once in a year  
C. Once in 2 year

11. How many times do you brush your teeth daily 
A. Once in a day  
B. Twice in a day  
C. More than 2 times  
D. After every meal

12. What kind of toothbrush do you use ___ 
A. Hard  
B. Soft  
C. Medium  
D. Don't know

13. You brush your teeth for ___ minutes 
A. 1-2 min  
B. 2-3min  
C. 3-4min  
D. More than 4min

14. In addition to toothbrush and toothpaste, do you use _____ 
A. Dental floss  
B. Tongue cleaner  
C. None

15. Do you use mouthwash? 
A. Yes  
B. No

16. How often do you change your toothbrush 
A. 1-3 months  
B. 3-6 months  
C. Cannot decide  
D. When it is spoilt

17. Do you rinse your mouth with water after eating 
A. Always  
B. Sometime  
C. Never

18. Have you ever visited a dentist ? 
A. Yes  
B. No

19. How frequently do you eat sweets? (including tea, coffee) 
A. Daily.  
B. Once in a week  
C. Occasionally  
D. Never

20. How much amount of paste do you use when you brush 
A. Pea size  
B. Full length of tooth brush  
C. Don’t know
RESULTS

**Fig 1:** reveals that 48% participates, had the knowledge about discolouration near the tooth was due to calculus/tartar and 31% students had the knowledge of food particles and 20% students had the knowledge of stains and 1% students had no knowledge about discolouration.

**Fig 2:** shows that 68% students knew if there was bleeding during brushing, it was sign of unhealthy gums. Where else 30% students knew that it is a sign of infected gums, 2% found that healthy gums.

**Fig 3:** shows that 60.0% participants were agree that fluoride prevents dental caries, 20% were disagree that fluoride prevents dental caries, and other 20% participants were unaware about fluoride prevents dental caries.
**Fig 4:** reveals that most of the study population (80%) think that oral health is important for overall health were 20% think oral health is not important for overall health.

**Fig 5:** reveals that according to 54% participants, had visit dentist once a year. 36% said, should visit the dentist, once in a 6 months and 10% said should visit the dentist one a 2 year.

**Fig 6:** shows that 41% brushes their teeth twice daily and 50% brush once in a day, 9% brushes their tooth more than 2 times.
Fig 7: reveals that 45% individuals brushed their teeth for 2-3 min, 32% brushed for about 1-2 min, and 23% students brushed their teeth for more than 3-4 min.

Fig 8: shows that majority of children’s 75% change their toothbrush once in 1-3 months, whereas 22% change in 3-6 months, 1% change when it spoil and 2% couldn’t decide.

Majority of 72% has the knowledge that there are 32 permanent tooth and 22% has the knowledge of 28. 60% students notice tooth decay with black spot and hole in the tooth, 30% identifies by pain and 10% have no knowledge about it. 60% participants, gain awareness on oral health through media (TV radio, internet), 40% learn on oral health through print media (newspapers, magazines), and 20% gain knowledge through family and friends. 75% found that dental treatment is expensive. In addition to toothbrush, 6% used tongue cleaner and only 10% used dental floss and other does not use any of the aids. 75% rinse their mouth sometimes and 25% will always rinse their mouth after eating.

49% eat sweets daily, whereas 34% eat sweets occasionally. 94% use tooth paste w its full length of tooth brush and 6% use pea size amount of tooth paste.

DISCUSSION
Health is a universal human need. It was recognized that optimal health cannot be attained independent of oral health. This research work presented a comprehensive overview of the knowledge, attitude, and practices of oral hygiene among 13-17 years.
In the present study, the knowledge regarding oral hygiene was satisfactory except knowledge about dental floss and practice of hygiene whereas poor knowledge on the perception of oral health was reported among engineering students of Thiruchengode [15].

Hamilton and Coulby (1991) [16] found that a high percentage (44%) studied in North Eastern Ontario used dental floss; in contrast, this present study reported only 10% students used dental floss. This can be attributed to the lack of oral health education or the cost factor of the dental floss. In the current study, 70% of the respondents knew that bleeding gums while brushing indicates unhealthy gingiva and a similar result was obtained in the study conducted by Taani (2002). [17]

Visiting the dentist for routine check-up is “preventive care use.” In this study, 59% participants had visited dentist at least once. Fear of the dentist could be the cause of not visiting dentist in 41% students in the current study. A significantly higher percentage (75.8%) was reported by Peltzer and Pengpid (2014) [18] and lower percentage (44.3%) was reported by Prasad et al. (2010) [19] for visiting dentist at least once. In this study, 89% participants consume sweets daily; in contrast lower percentage for the same (33.7%) was described by Prasad et al. (2010)

This study targets key issues of lack of oral health awareness, that must be addressed when creating health and hygiene promotion programs. Young students are more receptive to learning and are very likely to adopt healthy behaviours at a younger age. They can also be agents of change by spreading what they have learned at this age to their family and community members.

CONCLUSION
This study presented a inclusive overview of oral health-related knowledge, attitude, and practices among 13-17 years old children's who were reported to dental clinic. The knowledge about the oral hygiene was acceptable. Knowledge about dental floss and practice of oral hygiene was inadequate. More concentration would be needed to undertake regarding oral health care in terms of health education programs.

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