



ANALYSIS OF KNOWLEDGE ABOUT ORAL HEALTH, HYGIENE AND ADVERSITIES OF MISSING TOOTH AMONG MEDICAL AND ENGINEERING STUDENTS.

Dental Science

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ABSTRACT

OBJECTIVE: The objective of the study was to assess and compare the knowledge about oral health and adversities of missing tooth among medical and engineering students at Tagore group of institutions.

SUBJECTS AND METHOD: A cross sectional survey was conducted among a total of 186 medical and engineering students which included approximately 50% of males and 50% females. A pretested close ended questionnaire was adopted as the survey instrument of the study.

RESULTS: The total mean percentage scores were calculated for each study group and it was found that general scores were better among engineering students whereas the prosthetic score was found to be significantly higher among the medical students.

CONCLUSION: The study indicates that the knowledge towards oral hygiene and prosthetic knowledge was inadequate among students and that they required oral health education to improve their oral hygiene practises and knowledge.

KEYWORDS:

INTRODUCTION:

Health is the level of functional and metabolic efficiency of a living organism. In humans it is the ability of individuals or communities to adapt and self-manage when facing physical, mental, psychological and social change. Health promotion is a set of processes that can be used to change conditions that affect health so that targets are not always those whose health is in question. The World Health Organization in 1948 defined health as "a state of complete physical, mental, and social well being and not merely the absence of disease or infirmity". Promotion of health can be achieved through any combination of educational, social and environmental actions conducive to health.

Health promotion is "the process of enabling people to increase control over their health and its determinants, and thereby improve their health", according to the World Health Organization's (WHO) 2005 Bangkok Charter for Health Promotion in a Globalized World.

Oral health is an integral and essential component of general health. Oral health is essential to general health and quality of life. It is a state of being free from mouth and facial pain, oral and throat cancer, oral infection and sores, periodontal disease, tooth decay, tooth loss, and other diseases and disorders that limit an individual's capacity in biting, chewing, smiling, speaking, and psychosocial wellbeing. The most common oral diseases are dental cavities, periodontal disease, oral cancer, oral infectious diseases, trauma from injuries, and hereditary lesion. Worldwide, about 60–90% of school children and nearly 100% of adults have dental cavities, often leading to pain and tooth loss.

According to Steptoe et al, health behaviour is defined as the activities undertaken by people to protect, promote or maintain health and to prevent disease. Various factors may influence health behaviour include knowledge, attitudes, beliefs, values, skills, finance, materials, time and the influence of family members, friends, co-workers, opinion leaders and even health worker themselves. Individuals who have assimilated the knowledge and feel a sense of personal control over their oral health are more likely to adopt self care behaviour.

SUBJECTS:

- A cross sectional study was conducted among a total of 186

medical and engineering students approximately including 50% males and 50% females.

- Age-range of the subjects were about 18-24 years.
- Sampling method was convenience sampling.

VARIABLE	FREQUENCY	PERCENTAGES
COURSE OF STUDY		
MEDICINE	80	43.1
ENGINEERING	106	56.9
TOTAL	186	100
GENDER		
MALE	90	48.3
FEMALE	96	51.7
TOTAL	186	100

METHOD OF THE STUDY:

- A self-assessment questionnaire was adopted as the survey instrument for this study. The questions were pre-tested among a group of 20 students as a study sample. The pre-test indicates that questions were easy to answer, simple and understandable.
- The questionnaire included a total of 20 questions to evaluate their knowledge on oral health and adversities of missing tooth.
 - Oral health knowledge: Ten questions were included to assess their knowledge, attitude and behaviour towards oral health. This included questions on number of dentition, purpose of tooth-brushing, frequency of tooth brushing, use of tongue cleaner, effects of sweet/fizzy drinks & cigarette smoking on oral health, causes of bleeding gums, effects of fluoride on oral health
 - Adversities of missing tooth: Importance of replacing missing tooth; effects of missing tooth on speech, mastication, alignment, social life, confidence, self-esteem; reasons to replace missing tooth.
- The questionnaire were administered and completed by participants after a regularly scheduled classroom lecture.
- The students were asked to respond to each item according to the response format provided in the questionnaire.
- All completed questionnaires were retrieved immediately after completion.

- Data were compiled and individual scores were summed up to yield a total score.
- Descriptive statistics were obtained and mean percentage scores, standard deviation and frequency distribution were calculated for both the parts.

RESULTS:

A total of 186 medical and engineering students completed and returned the questionnaire of which 80 were medical students and 106 were engineering students. Approximately half of participants were both male and female.

Figure 1 shows that about 39% and 49% of medical and engineering students respectively brushed twice a day which would be optimum to maintain oral health. Therefore engineering students gave positive response and were significantly better than medical students when it comes to brushing teeth.

In the present study, all the participants irrespective of age, gender and course of study used toothbrush and toothpaste as the oral hygiene tooth. The use of dental floss, interproximal brush and mouth-rinse was not recorded in this study. About 51% of students used tongue cleaner regularly.

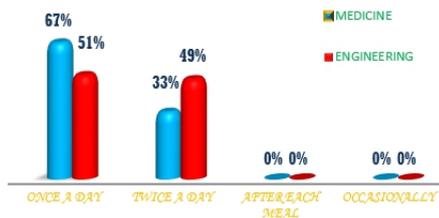


FIG 1: HOW OFTEN DO YOU BRUSH YOUR TEETH?

Figure 2 shows that about 55% and 75% of medical and engineering students respectively gave positive response saying that cigarette smoking and consumption of sweet and fizzy drinks had bad effects on oral health. Regarding the field of study, it was found that engineering students dominated over medical students in attitude, behaviour and knowledge when it comes to oral health hygiene.

About 90% and 30% of medical and engineering students respectively gave correct answer for the number of teeth in a normal permanent dentition. Statistically the percentage of female giving the correct response was much better than the male colleagues.

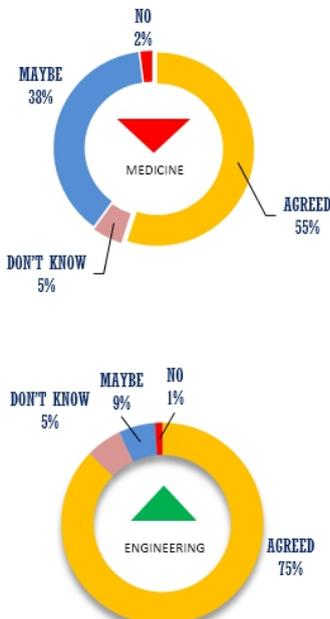


FIG 2: DOES SMOKING, CONSUMING SWEET AND FIZZY DRINKS AFFECT ORAL HYGIENE

Figure 3 shows that around 64% and 52% of medical and engineering students respectively responded that missing teeth had effects over speech, mastication and lead to malocclusion of tooth and that it was important to replace the missing tooth as soon as possible.

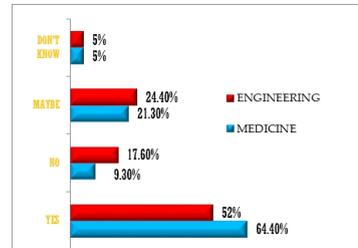


FIG 3: DOES MISSING TEETH AFFECT SPEECH, MASTICATION & LEAD TO MALOCCLUSION?

Regarding the course of study, the present study indicates that the mean percentage scores for knowledge about general oral hygiene were better among engineering students when compared to medical students.

On further analysis it was found that the prosthetic scores were comparatively better in medical students and most of them thought that missing teeth had a huge impact on their confidence, social life and normal functioning.

Regarding the gender, statistically females had better knowledge in both aspects of questionnaire when compared to males and they thought it was very important to replace missing tooth.

According to the age group, students of age group 21-24 had better knowledge when compared to students of age group 18-20.

VARIABLE	GENERAL SCORE		PROSTHETIC SCORE		TOTAL
	COURSE OF STUDY	CORRECT	WRONG	CORRECT	
MEDICINE	57.75	42.25	61.8	38.2	100
ENGINEERING	63.70	36.30	48.0	52.0	100
GENDER					
MALE	60%	40%	56%	44%	100%
FEMALE	81%	19%	72%	28%	100%
AGE GROUP					
18-20	55%	45%	42.5%	57.5%	100%
21-24	70%	30%	54%	46%	100%

TABLE 1: MEAN PERCENTAGE SCORES ACCORDING TO COURSE OF STUDY, GENDER AND AGE GROUP

However in the study conducted by Braimoh Omoigberai Bashiru et al, it was found that medical students had better knowledge, attitude and behaviour towards oral hygiene when compared to nursing and pharmacy students with a mean percentage score of over 51%.

In a previous study 95.7% of the students brushed their teeth at least twice a day. In our study only 41.9% of students brushed twice a day irrespective of the course of study, whereas a study stated that 282 (61.3%) students brushed their teeth twice or more times a day, 163 (35.4%) brushed at least once a day while only 11 (2.4%) claimed to not brush their teeth on a daily basis. In a study, 61.49% students of medicine (68.8% 2nd year and 47.1% 5th year students) and 54.4% of students of engineering (49.5% 2nd year and 61.3% 5th year students) change their toothbrush every 3 months. However in our study it was found that only 52.5% students of medicine and 87.7% students of engineering changed their brush every 3 months.

One study, showed that pain is the main driving factor for patients to visit the dentist. Most of the study subjects in this study reported irregular dental attendance, and this finding is consistent with the findings of other studies. However in our study it was found that 31% of students reported to a dentist when in pain. Perhaps the rest resort to self medication. This may eventually lead to tooth loss as the tooth may have a hopeless prognosis by the time of a dental visit.

DISCUSSION:

Attitudes toward oral health determine the condition of the oral cavity. Presence of any oral disease like dental caries and periodontal disease is due to the lack of one's knowledge and attitude and behaviour towards oral hygiene which later leads to loss of tooth.

This study gives an idea about the oral health hygiene practise and attitude of students towards missing tooth.

Every study has certain limitations. The major limitation was that the response could have been biased due to peer pressure or social acceptability. The results obtained must be useful in development of health campaigns and educational intervention programs to improve the attitude of individuals towards oral health.

Our study shows that engineering students had significantly better scores for their attitude, behaviour and knowledge than the medical students.

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CONCLUSION:

Although the students with positive response was at an average of 65%, it was found to be inadequate and some measures have to be taken to improve this. The development of educational intervention programs and oral health promotion campaigns are important in young male students. Special prosthodontics related educational sessions to educate college students about the importance of teeth and replacement of missing teeth, stressing on the ill effects of not paying attention to such concerns is necessary for engineering students in order to improve their knowledge on adversities of missing tooth, as the mentality of these young students will be the key for the improvement of oral health in future generations.

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