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Research paper

Assessment of oral health attitude & behaviour among dental student of Bhopal Madhya Pradesh: a comparative study

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Abstract

Introduction: Attitudes & behavior towards their own oral health affect their oral health habits and also have a possible influence for the improvement of the oral health of their patients and society.
Aim: To evaluate oral health attitude & behavior among a group of dental students of one of the dental colleges of M.P. & to compare a difference in oral health.
Material & Method: A descriptive cross study was carried out between 200 dental students of people dental academy Bhopal M.P. India. Subjects were divided into 2 groups, i.e. group 1 pre-clinical group (first & second year) group 2 clinical group (third & fourth year). A self-administered questionnaire consisting of 13 questions on attitudes and practice towards oral health care.
Results: In the present study, 130 students were from preclinical group, and 70 students were from clinical group. Most of the students brush their teeth once daily for 2 min following roll technique of brushing before breakfast using only toothpaste as a cleaning aid. All students from clinical years routinely examined their oral cavity while most of the students visited the dentist only when required. Majority of students considered oral health as important as general health and believed that oral health affects the general health. Students were also aware of the harmful effects of tobacco while only few of them were indulged in them.
Conclusion: With increasing years of the study, some aspects of dental student's oral health attitude and behavior improved but this improvement was limited. Thus, the students should be motivated to become an example of oral health in the society, for which few steps to motivate them toward better oral health are proposed.

Keywords: *Oral Health Behavior; Dental Attitudes; Dental Students*

1. Introduction

Dental education, have an important role in improving oral hygiene of dental students. In general dental students have been found to have a positive attitude towards oral health (ChestnutIG1998 p 26).Attitudes Attitudes are acquired by social interaction, not learned from the textbooks (BertolamiCN2001 p 65).Dental Dental students to improve their own oral health care could be of great value because the students will transfer the same knowledge and behavior patterns to their patients, family & friends [(CortesFJ2002 p 66), (TseveenjavB2002 p 6)].
Previous studies have shown dentists to be lacking in self-motivation to practice basic preventive oral hygiene habits(KawamuraM2002 p 44).Therefore Therefore, Imparting knowledge related to dental health and the prevention of oral diseases is very important during the future dentists' training period(BrusokaiteJ2003 p 5).Studies Studies have shown that attitude and behavior of dental students vary in accordance with the year of studies (preclinical and clinical years) as well as cultures and countries of origin (KawamuraM2004 p 3).
Thus, the purpose of this study was to evaluate self-reported oral health attitude, and behavior among a group of dental students and to compare differences in oral health attitudes between years of study and gender.

2. Material & method

A total of 200 students were included from people dental academy Bhopal M.P. India. Subjects in the study were divided into two groups based on their professional years:

1) Preclinical group
2) Clinical group.

Categorization according to their gender was also done. Informed consent was obtained from each student before the questionnaire was distributed and the students who were not willing to be a part of this study were excluded. The survey was done using a self-administered structured questionnaire written in English. This 13 questionnaire contained information on their attitudes toward dental care and oral health practice and was personally distributed.
Data collected was subjected to statistical analysis. Chi-square test was applied to compare the data collected between students from preclinical and clinical years and also between males and females. A $P < 0.05$ was considered to be statistically significant.

3. Results

The present study comprised 200 students from different professional years. Of these 130 were from preclinical years and

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70 were from clinical years. Of 200 subjects, 120 were males and 80 were females.

Most of the students brush their teeth once daily and the difference between the frequency of brushing in students from preclinical and clinical years was not significant. The difference between the brushing frequency in males (30%) and females (70%) was significant. Maximum number of students brushed their teeth before breakfast, and there was no significant difference between brushing time between students from preclinical and clinical years whereas a significant difference was observed between males and females with regard to brushing time. With regard to duration of brushing a significant difference was observed in preclinical and clinical students and males and females. Majority of subjects in the present study brush their teeth for approximately 2 min (TABLE1.)

Most of the students brushed their teeth using roll technique of brushing and a significant difference was observed in males and females and preclinical and clinical students. Majority of students use toothpaste as an aid for cleaning teeth and a significant difference was observed in males and females with regard to aid used for cleaning teeth (TABLE 1).

A significant difference was seen in males and females with respect to the duration of toothbrush replacement. Most of the students use tongue cleaner for cleaning tongue, and no significant difference was seen between males and females and students from preclinical and clinical years with regard to tongue cleaning aid. Use of back side of brush was other popular method of tongue cleaning among the students (TABLE 1).

All the clinical students routinely examine their oral cavity as compared to 60% of preclinical students and the difference was significant. With respect to a previous visit to the dentist no significant difference was observed between males and females and between preclinical and clinical year students. As compared to 70% of males who visit the dentist only when some problem arises, 55% of females visited the dentist every 6 months and this difference between males and females with regard to frequency to visit dentist was significant (Table 2).

A significant difference was found between males and females with respect to adverse oral habit (smoking, tobacco chewing) as 90% of males and 100% of females did not have any adverse oral habit (smoking, tobacco chewing). A significant difference was observed between males and females and clinical and preclinical students with respect to problem of bleeding gums. A significant difference was found between students from preclinical and clinical years with respect to importance of tongue cleaning as 80.9% of students from preclinical years and 86.6% of students from clinical years thought that tongue cleaning was important. No significant difference was observed between males and females with respect to importance of tongue cleaning as 95% of females and 85% of males thought that tongue cleaning was important (TABLE 2).

4. Discussion

Baseline information on oral health, associated with adequate preventive procedures, is fundamental to promote self-preventive behavior(Al-OmariQD&HamashaAA2005p6).An An important task of oral health professionals is to instill in their patients the correct oral habits to prevent oral diseases(AsadoorianJ2006 p 40).For For educating and motivating general public, it is of great importance that the future dental surgeons should themselves be particularly conscious, educated, and motivated of the pathological effects of poor oral hygiene.

In the present study, 13 questions were asked to assess the, attitude and oral health practices followed by the subjects. There is enough evidence to consider twice a day as the recommended frequency of tooth-brushing to maximize the effect of using fluoridated toothpaste(SofolaOO&JebodaSO2006 p 10).In In the present study, the reported frequency of brushing at least once daily was similar to be reported by (Barrieshi-NusairK2006p 23),(DumitrescuAL2007 p 5),Dental Dental students. Although, there was no significant difference in the tooth brushing frequency in the preclinical and the clinical students, the number of the students who brush their teeth twice daily was slightly more in preclinical years as compared to clinical years. Thus, indicating the fact that even with the increased level of knowledge, there was no improvement in the oral health attitude and behavior among the students. This was in contrast to the findings of a study by (KhamiMR2007 p 11) which showed that the percentage of students claiming to brush their teeth twice daily or more often was 4 times higher among clinical students than among preclinical students.

Majority of students in our study brush their teeth for 2 min and that too before breakfast using only toothpaste as a cleaning aid.

Brushing methods, including Bass, Stillman's, Fones, Charters, horizontal, vertical, scrub, etc., have been taught since decades, with Bass and Roll method most commonly recommended (BhatSS& SargodSS2007 p 1). In our study, majority of students brush their teeth following roll method followed by horizontal brushing of teeth. In the present study, majority of students replaces their brush after every 6 months. In our study, majority of students both from clinical and preclinical years thought that tongue cleaning has an important role in developing better oral health.

In our study, both the male and female students were observed to provide an insight of oral self-care habits in the two genders. Few studies stated that females presented better attitude and behavior scores compared to the male students (DagliRJ2008 p 50).

All the students from clinical years routinely examined their oral cavity in comparison to 60% of preclinical students (ShardaAJ&ShettyS2008 p 6).Approximately, Approximately, 60% of students have visited dentist previously (PekerI&AlkurtMT2009 p 1).This This proportion was much higher in our study as compared to that in the study by (KumarS et al p 8) where only 32% of the students have visited the dentist before. Majority of students in our study visit dentist only when problems arise.

In our study, majority of students did not have any adverse oral habits (smoking, tobacco chewing) while 15% of clinical students had adverse oral habits as compared to 5% among the preclinical students. More adverse oral habits and more negligence in following preventive measures may be because of increased demand for studies, or peer pressure as the students just entering the colleges are not influenced by tobacco use(NeerajaRet al2011 p 5).In their study reported that transition from preclinical to clinical years may lead to stress in many students (DavidovicBet al2012 p 59).in their study stated that increased academic stress also allures many students to take up smoking as a means of coping with the burden..

The main limitation of the present study is that the study pertained to a single dental college in India. Although proper care was taken that students were not influenced by responses from their friends, there could have been biased responses in few cases. This article also proposes few steps to motivate the students toward better oral health.

Few recommendations for motivating dental students are:

- Emphasis must be laid on preventive health education right from their preclinical courses. More stress should be laid on clinical considerations while imparting them knowledge about normal structure of tissues during their preclinical courses
- Regular quizzes on oral health should be conducted in colleges to test their knowledge and also for imparting them knowledge. Regular competition between students regarding better oral health should be conducted in colleges, and the one with better oral hygiene should be awarded.
- Dental students, on a turn basis, should serve as a model for educating the general public, when they are posted for camps. This could motivate them to change their attitude.

Table 1: Responses to Various Questions in Relation to Various Oral Hygiene Practices among the Study Population According to Gender and Course of Study.

QUESTIONS	RESPONSES	MALE (%)	FEMALE (%)	CHI-SQUARE	P	PRE-CLINICAL (%)	CLINICAL (%)	CHI-SQUARE	P
Brushing frequency	Once Twice Thrice	30 50 20	70 20 10	28.36	0.0	45 40 15	65 35 0	2.7	0.09
Brushing timing	Before breakfast After breakfast Any other time	45 30 25	75 25 0	4.7	0.02	55 5 40	65 3 32	0.8	0.36
Brushing duration	<1min 2 min 3 min More than 3 min	2 40 32 26	16 50 34 0	7.01	0.008	5 50 25 20	20 45 35 0	8.4	0.003
Brushing technique	Horizontal Vertical Roll	20 30 50	43 5 52	4.7	0.02	25 20 55	40 18 42	5.17	0.02
Aids for cleaning teeth	Tooth paste Tooth power Toothpaste + mouthwash Floss + toothpaste	68 4 20 8	65 0 5 30	7.10	0.007	66 10 20 4	70 0 28 2	0.67	0.4
Tooth brush replacement	Every 3 months Every 6 months Once a year	85 5 10	80 20 0	8.64	0.003	86 12 2	80 20 0	2.19	0.13
Tongue cleaning aids	Tongue cleaner Backside of toothbrush No specific aids	50 40 10	45 35 20	0.008	0.9	55 45 0	48 40 12	0.003	0.95

Table 2: Responses to Various Questions Related to Attitude of the Study Population towards Oral Health According to Gender and Course of Study.

QUESTIONS	RESPONSES	MALE %	FEMALE %	CHI-SQUARE	P	PRE-CLINICAL %	CLINICAL %	CHI-SQUARE	P
Routine examination of oral cavity	Yes No	70 30	75 25	0.62	0.42	60 40	100 0	50	0.00
Have you ever visited dentist	Yes No	58 42	68 32	2.14	0.14	62 38	62 38	0	1
Frequency of dental visit	Every 6 month Annually Only when problem arise s	20 10 70	55 5 40	24.3	0.000	30 10 60	40 30 30	3.43	0.06
Any adverse oral habit	Yes No	10 90	0 100	10.5	0.001	5 95	15 85	5.55	0.01
Does your gum bleed	Yes No	30 70	15 85	6.4	0.01	28 72	15 85	5.00	0.02
Do you think tongue cleaning is important	Yes No	85 15	95 5	5.55	0.01	86 14	96 4	6.10	0.01

5. Conclusion

In this study, the attitude and behavior toward proper practicing of oral health measures and regular visit to dentist need to be improved, but this improvement was limited. In conclusion, there is a lack of motivation among dental students to practice basic preventive oral health habit. Thus, students should be provided with better comprehensive dental education with early exposure to dental health and prevention.

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Conflict of inerest

No conflict of interest involved so ever.

Source of finding

Nil.

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