

# Periodontal health awareness among students of professional colleges in Karachi

Mariya K, Batool S, Sabeen M\*

Department of Oral Surgery, Altamash Institute of Dental Medicine, Karachi, Pakistan

## Abstract

The purpose of the study was to check the awareness of periodontal health among the students of professional colleges in Karachi. This survey was conducted from June 2018 to September 2018. A descriptive cross-sectional survey was conducted on 100 students. A structured questionnaire was administered through convenience sampling to medical, engineering, business college students. The results of the questionnaire were calculated and analyzed via the SPSS software version 20.

**Citation:** Mariya K, Batool S, Sabeen M (2018) Periodontal health awareness among students of professional colleges in Karachi, AEDJ 10: 2. doi: 10.24105/aedj.2018.10.3

**Received:** November 01, 2018; **Accepted:** November 26, 2018; **Published:** December 15, 2018

**Copyright:** © 2018 Mariya K, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

**Competing interests:** The authors have declared that no competing interest exist.

**Sources of funding:** No funding.

\*E-mail: sabeen\_786@live.com

## Keywords:

Oral Health, Tooth, Oral Health, Oral Hygiene, Periodontal Health

## Introduction

Health is the dynamic state or condition that is multidimensional, a resource for living, and results from a person's interactions with and adaptation to the environment [1]. Health is the center of a man's happiness and wellbeing [2]. Good oral hygiene is a key reason for maintaining functional, structural, aesthetics, physiological and psychosocial state of wellbeing of an individual general health and quality of life [3]. The new literature suggests that there is a strong relationship between poor oral hygiene and declining periodontal health [4]. A deteriorating systemic disease can negatively affect periodontal health and vice versa [5]. Periodontology is the study of the periodontium. Alveolar bone, cementum, periodontal ligament, and gingiva makes up the periodontium [6]. It is a rapidly expanding field of dentistry due to its curative, cosmetic, regenerative and preventive qualities. The new generation of professionals makes up a part of our society and are considered to have a better perception and realization of

maintaining oral hygiene in comparison to the general population. Hence the following survey study was designed for oral health awareness levels among students of different professional colleges.

## Methodology

This is a professional colleges-based survey conducted from June 2018 to September 2018 to find the awareness of the periodontal health among students of professional colleges in Karachi. Sample size of 100 was calculated by using WHO online sample size calculator. Data was collected using a self-administered structured questionnaire and analyzed by using SPSS version 20. Chi-Square test was used to calculate the p-value <0.05 was considered as significant.

The questionnaire consisted of two main sections. The first consisted of questions about the participant's socio-demographic status: age, gender, and qualifications were reported. The second section consisted of eighteen questions on students' knowledge about periodontal health (four yes/no questions, and fourteen questions with multiple options for participants to check their own knowledge of periodontal health). The second section consisted of questions about the

participant's teeth cleaning and cleaning method and cleaning duration and time, sensitivity, commonest cause of halitosis, bleeding, receding gums, mobile teeth and causes of staining. plaque control methods.

Inclusion criteria of our article include students belonging to medical, engineering and business colleges, both male and female and age limit 20-50. Exclusion criteria include students belonging to dental colleges and elder people.

## Questionnaire

### Demographic questions

- Age: \_\_\_\_\_ Gender: \_\_\_\_\_
- Name \_\_\_\_\_ of \_\_\_\_\_ the \_\_\_\_\_ institute: \_\_\_\_\_
- Date: \_\_\_\_\_

### Survey questions

- Do you clean your teeth?
- How often do you clean your teeth?
- How do you clean your teeth?
- How long do you clean your teeth for?

### If you do not use tooth brush, kindly jump to question 07

- What type of brushing technique do you use?
- How often do you change your tooth brush?
- How do you select your tooth paste?
- Do you use dental floss?
- Do you use mouth wash?
- Have you ever experienced sensitivity?
- According to you what is the commonest cause of halitosis?
- According to you what is the commonest cause of bleeding gums?
- According to you what is the commonest cause of receding gums?
- According to you what is the commonest cause of mobile teeth?
- According to you which, of the following substance can lead to staining?
- Do you think that poor oral hygiene can affect the general health of the patient?

- According to you how often should one visit a dentist?
- What secondary method do you use for plaque control?

## Results

A total of 120 questionnaires were distributed among professional colleges student through simple random sampling. Among the questionnaires that were returned a total of 100 questionnaires were used to form this survey as the rest were either blank or wrongly marked. The respondents included medical, engineering and business students. Majority of the respondents 50 (50%) were of medical colleges while some 30 (30%) were in the engineering colleges and the rest 20 (20%) were in business colleges. Out of 100 participants, 50 were medical, 30 were engineering and 20 from business schools. The mean age of the students was  $20.36 \pm 1.93$  years with a minimum age of 17 years and maximum age of 27 years. However, every candidate was found to brush their teeth but only 37% did twice a day while others preferred brushing once daily. The duration of brushing was another question included in the questionnaire, students brushing for less than one minute were 37% and 21% brushed for a longer duration of more than one minute and 42% preferred one minute for brushing shown in Figure 1.

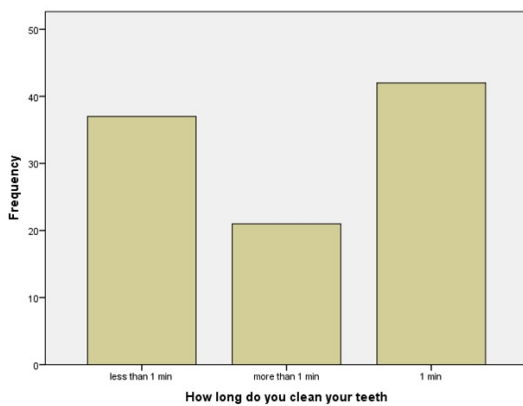
Participants who changed their toothbrushes every three months were 37%, every six months 47% and on annually were 16%. Majority of the students 42% used horizontal brushing technique, while some of the 37% favored vertical brushing technique and only a few of the 16% adopted round brushing technique as their choice of brushing. 5% of students were not aware of their brushing techniques.

None of the person included in this study used dental floss on regular basis. While most of them didn't include dental floss in their daily oral hygiene maintenance and some of them were not aware of the procedure.

Subjects were enquired about the knowledge and the application of mouthwash, out of which 0% once daily, 6% once weekly. 22% as prescribed by dentists and 72% never used.

Chi-square test was performed to determine the significant association between poor oral hygiene can affect general body health of patient and Students belonging to different professional institutes. Chi-Square test was used to calculate the p-value. The p-value is the level of marginal significance within a statistical hypothesis test representing the probability of the occurrence of a given event. P-value 0.03 was calculated by test considered as statistically significant shown in Tables 1 and 2.

Lastly, the results of the study pointed out that educational level was one of the most important factors that governed the knowledge, perspective, and behavior of the people.



**Figure 1:** The frequency and the time taken to clean the teeth.

**Table 1:** Showing poor oral hygiene can affect the general health of patients through institutions.

Does Oral Hygiene can affect general health of Patient	Institution				
	Dow Medical College & BUDMC	NE D	Tabani School	Artt	Total
Yes	50	26	15	3	94
May be	0	4	1	1	6
Total	50	30	16	4	100

**BUDMC:** Bahria University Medical and Dental College; **NED:** Nadirshaw Eduljee Dinshaw University of Engineering and Technology.

**Table 2:** Chi-Square tests

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.940 <sup>a</sup>	3	0.30
Likelihood Ratio	10.144	3	0.017
Linear-by-Linear Association	4.949	1	0.026
No of Valid Cases	100		

**df:** degree of freedom; a indicates that (62.5)% have expected where count is less than 5. The minimum expected count is 0.24.

### Discussion

Criteria of oral hygiene awareness and maintenance are very imprudent in Pakistan, with most of the population being afflicted due to poor socio-economic behavior and most of the people have never paid a visit to a dentist. One should also instill the importance of visiting a dentist on regular basis. In doing so we will be able to better defend our population against various systemic diseases initiated by poor oral hygiene. The present study provides information about the periodontal health awareness among the professionals belonging to different colleges in Karachi Pakistan [7]. A recent survey suggests about awareness of periodontal health among the students of professional colleges in Dakshina Kannada District. A substantial lack of oral hygiene understanding and limited knowledge of oral hygiene practices even in health professionals and engineering and business students [8].

Another study concludes that there were significant differences in oral health knowledge about periodontal disease in students from different levels of studies and different disciplines [9].

Poor oral health awareness is the cause of increasing the prevalence of periodontal diseases, financial consequences, and harmful effect on the quality of life of the affected people [10].

There are some limitations to this study because of limited resources like time and money. Due to time constraint, a sample of only 100 respondents was selected. The results of this survey are only based on questionnaires as this data collection instrument is more time and cost effective.

It has been observed that periodontal health has mostly remained as an ignored and unrealized major social problem [11].

## Conclusion

Our survey shows that awareness of periodontal health is one of the most significant factors affecting the knowledge, attitude, practice, and behavior of the society. The picture painted by the outcomes of the study is highly alarming due to lack of knowledge and awareness of oral hygiene within the professional schools, i.e. medical, engineering and business. This study is a stepping stone in spreading awareness and importance of oral hygiene.

## References

- Miguel AP, Sinsakchon A, Luz Marina AP, Cassie V. Advancing Culturally Relevant Health Promotion and Disease Prevention: Lessons from the Global Village. *Revista Salud Uninorte*. 2016; 32:7-10.
- Steptoe A, Deaton A, Stone AA. Subjective wellbeing, Health, and ageing. *Lancet*. 2015; 385:640-648.
- Grönbeck I, Hägglin C, Gahnberg L, Andersson P. Factors Affecting Older Persons' Ability to Manage Oral Hygiene. A Qualitative Study. *JDR Clinic & Trans Res*. 2017; 2:223–232.
- Arigbede AO, Babatope BO, Bamidele MK. Periodontitis and systemic diseases. A literature reviews. *J Indian Soc Periodontol*. 2012; 16:487-491.
- Kim J, Amar S. Periodontal disease and systemic conditions. A bidirectional relationship. *Odontology*. 2006; 94:10-21.
- Manovijay B, Sayeeganes N, Saranyan R, Jayachandran D, Priya K, Subhashini V. Periodontal Health Awareness among Medical Students-A Survey. *Clin Res Open Access*. 2015; 1: 1-4.
- Zhu L, Petersen PE, Wang HY, Bian JY, Zhang BX. Oral health knowledge, attitudes and behavior of adults in China. *Int Dent J*. 2005; 55:231-241.
- Dayakar MM, Kumar J, Pai GP, Shivananda H, Rekha R. A survey about awareness of periodontal health among the students of professional colleges in Dakshina Kannada District. *J Indian Soc Periodontol*. 2016; 20:67-71.
- Bader KAZ. Oral Health Knowledge of Periodontal Disease among University Students. *Int J Dent*. 2013; 2013:647397.
- Ali NS, Khan M, Butt M, Riaz S. Implications of practices and perception on oral hygiene in patients attending a tertiary care hospital. *J Pak Dent Assoc*. 2012; 1: 20-23.
- Jain N, Mitra D, Ashok KP, Dundappa J, Soni S, Ahmed S. Oral hygiene- awareness and practice among patients attending OPD at Vyas Dental College and Hospital, Jodhpur. *J Indian Soc Periodontol*. 2012; 16:524-528.