

Knowledge and Awareness towards Periodontal Diseases among Medical Students

Bipin Kumar Yadav¹, Rajesh Kumar Thakur²

ABSTRACT

Introduction: Oral health is an important factor in maintaining sound psychological and physical health. Periodontal diseases, including gingivitis and periodontitis, are infections that if left untreated, can lead to tooth loss. The main cause of periodontal disease is bacterial plaque, the initiation and progression of gingivitis and periodontitis. The aim of this study was to evaluate the knowledge and awareness regarding periodontal disease among medical students.

Material and methods: The present cross-sectional study was carried out among the MBBS students to evaluate the knowledge regarding periodontal disease. All the undergraduate students studying in the college were eligible to participate in the study. 300 students of first, second and third professional enrolled in MBBS program were selected for the study. The students who had attended lectures of Dentistry or exposed to clinical practice were excluded the study and questionnaires were distributed the students. The self-administered questionnaire was used to assess the study participant's personal data and level of knowledge on issues relating to periodontal diseases. The data were collected and analyzed using the Statistical Package for the Social Sciences version 21.0 for Windows (SPSS Inc., Chicago, IL, USA). Statistical significance was based on $P < 0.05$.

Results: In the present study total students were 270. 37.66% students think vertical brushing technique is better for good oral health. 31.66% students think vitamin C deficiency is the most common cause for bleeding gums. 72.66% students think poor oral hygiene is the most common cause for bad breath. 68.33% students think coffee or tea causes staining of teeth. 61.66% students think bad oral hygiene affects your general health. 65.66% students think improper tooth brushing is the most common cause for receding gums. In 86.66% students no family member lost more than 6 teeth at young age of <35 years.

Conclusion: The students showed reasonable knowledge regarding periodontal health. But, also there is need to strengthen the diagnostics for early detection of periodontal disease in young adults.

Keywords: Periodontal Diseases, Gingivitis, Periodontitis

INTRODUCTION

Periodontal diseases, comprising gingivitis and periodontitis, are probably the most common disease of humankind.¹ Periodontal disease, including gingivitis and periodontitis, are infections that if left untreated, can lead to tooth loss. The main cause of periodontal disease is bacterial plaque, the initiation and progression of gingivitis and periodontitis can be caused due to factors like pregnancy.² Gingivitis

and periodontitis are chronic inflammatory disorders of periodontal tissues, that is, gingival, periodontal ligament, cementum, and alveolar bone surrounding the tooth. Microorganisms present in the dental plaque are the main etiologic factors responsible for initiation and progression of periodontal diseases.³ Medical students are representative of the educated, urbanized, influential, and motivated class of individuals. The effect of joining a medical profession and its relationship with the personal level of oral health has not shown any correlation.⁴ Effective plaque control is an essential part in the treatment of inflammatory periodontal diseases.⁵ The aim of this study was to evaluate the knowledge and awareness regarding periodontal disease among medical students.

MATERIAL AND METHODS

The present cross-sectional study was carried out among the undergraduate students to evaluate the knowledge regarding periodontal disease. Before the commencement of the study ethical approval was taken from the Ethical Committee of the institute. All the undergraduate students studying in the college were eligible to participate in the study, but only the students who give informed consent were included in the study. 300 students of first, second and third professional enrolled in MBBS program were selected for the study. The students who had attended lectures of Dentistry or exposed to clinical practice were excluded the study and questionnaires were distributed the students. The self-administered questionnaire was used to assess the study participants' personal data (age, gender, course, and level of study), source of oral health information, and level of knowledge on issues relating to etiology, associated risk factors, prevention and treatment of periodontal diseases. The data were collected and analyzed using the Statistical Package for the Social Sciences version 21.0 for Windows

¹Associate Professor, Department of Periodontology, Dentistry, Uttar Pradesh University of Medical Sciences, Saifai, Etawah, UP-206130, ²Associate Professor, Department of Periodontology, Dentistry, Uttar Pradesh University of Medical Sciences, Saifai, Etawah, UP-206130, India.

Corresponding author: Dr. Rajesh Kumar Thakur, Associate Professor, Department of Periodontology, Dentistry, Uttar Pradesh University of Medical Sciences, Saifai, Etawah, UP-206130, India

How to cite this article: Bipin Kumar Yadav, Rajesh Kumar Thakur. Knowledge and Awareness towards periodontal diseases among medical students. International Journal of Contemporary Medical Research 2020;7(2):B5-B7.

DOI: <http://dx.doi.org/10.21276/ijcmr.2020.7.2.35>



Sr. No.	Questions	Response (n%)
1	Which type of brushing technique do you think is better for good oral health?	
	Vertical	113(37.66%)
	Horizontal	79(26.33%)
	Roll stroke	93(31%)
	Not aware	15(5%)
2	What is the most common cause for bleeding gums?	
	Vitamin C deficiency	95(31.66%)
	Poor oral hygiene	129(43%)
	Injury to the gums	37(12.33%)
	Not aware	39(13%)
3	What is the most common cause for bad breath?	
	Smoking	47(15.66%)
	Poor oral hygiene	218(72.66%)
	Lung diseases	18(6%)
	Onion/garlic food product	17(5.66%)
4	Do you think coffee or tea causes staining of teeth?	
	Yes	205(68.33%)
	No	43(14.33%)
	Maybe	29(9.66%)
	Not aware	23(7.66%)
5	Do you think bad oral hygiene affects your general health?	
	Yes	185(61.66%)
	No	21(7%)
	Maybe	53(17.66%)
	Not aware	41(13.66%)
6	What is the most common cause for receding gums?	
	Improper tooth brushing	197(65.66%)
	Nail biting habit	35(11.66%)
	Injury	28(9.33%)
	Diabetes	40(13.33%)
7	Has any member of your family lost more than 6 teeth at young age of <35 years?	
	Yes	8(2.66%)
	No	260(86.66%)
	Maybe	10(3.33%)
	Not aware	22(7.33%)

Table-1: Knowledge regarding periodontal health

(SPSS Inc., Chicago, IL, USA). Statistical significance was based on $P < 0.05$.

RESULTS

In the present study, total 270 students were enrolled. 37.66% students think vertical brushing technique is better for good oral health. 31.66% students think vitamin C deficiency is the most common cause for bleeding gums. 72.66% students think poor oral hygiene is the most common cause for bad breath. 68.33% students think coffee or tea causes staining of teeth. 61.66% students think bad oral hygiene affects your general health. 65.66% students think improper tooth brushing is the most common cause for receding gums. In 86.66% students no family member lost more than 6 teeth at young age of <35 years.

DISCUSSION

Periodontal health is essential component of oral health and its significance for systemic health and general well-being has been emphasized time and again.⁶ The presence of periodontal disease in adolescents and young adults is a

major concern. Various studies on loss of attachment of ≥ 2 mm have reported the prevalence of 2.8–4.9% in Sweden,⁷ 24.5% in USA,⁸ 88.7% in New Mexico,⁹ in 12- to 19-year-old individuals.

In the present study total students were 270. 37.66% students think vertical brushing technique is better for good oral health. 31.66% students think vitamin C deficiency is the most common cause for bleeding gums. 72.66% students think poor oral hygiene is the most common cause for bad breath. 68.33% students think coffee or tea causes staining of teeth. 61.66% students think bad oral hygiene affects your general health. 65.66% students think improper tooth brushing is the most common cause for receding gums. In 86.66% students no family member lost more than 6 teeth at young age of <35 years.

Higher levels of studies had better knowledge of periodontal disease signs, preventive measures, and relations to general health, and this might be due to receiving more dental health care and thus know more about periodontal disease. Other studies proved that within the same specialty the dental

health knowledge and attitudes became more positive with the increase of level of education.^{10,11} A study were compared to European populations, European adults demonstrated better dental knowledge than their Saudi peers.¹²⁻¹⁵ A study in Saudi Arabia, concluded that students from science-oriented faculties had better knowledge of various aspect of periodontal disease than students from humanity disciplines.¹⁶ The study in Tanzania reported that majority (96.8%) had adequate knowledge on causes and prevention of periodontal diseases was carried out among secondary school students and employed very basic questions to elicit their knowledge.¹⁷

CONCLUSION

The medical students showed reasonable knowledge regarding periodontal health. But, also there is need to strengthen the diagnostics for early detection of periodontal disease in young adults.

REFERENCES

1. Tonetti MS, Jepsen S, Jin L, Otomo-Corgel J. Impact of the global burden of periodontal diseases on health, nutrition and wellbeing of mankind: A call for global action. *J Clin Periodontol* 2017;44:456-62.
2. Kim J, Amar S. Periodontal disease and systemic conditions: A bidirectional relationship; *Odontology* 2006; 94:10-21.
3. Zambon JJ. Periodontal diseases: Microbial factors. *Ann Periodontol* 1996;1:879-925.
4. Maatouk F, Maatouk W, Ghedira H, Ben Mimoun S. Effect of 5 years of dental studies on the oral health of Tunisian dental students. *East Mediterr Health J* 2006;12:625-31.
5. Terézhalmy GT, Bartizek RD, Biesbrock AR. Plaque-removal efficacy of four types of dental floss. *J Periodontol* 2008;79:245-251.
6. Williams RC. Understanding and managing periodontal diseases: a notable past, a promising future. *J Periodontol* 2008;79:1552-9.
7. Lennon MA, Davies RM. Prevalence and distribution of alveolar bone loss in a population of 15-year-old schoolchildren. *J Clin Periodontol* 1974;1:175-82.
8. Mann J, Cormier PP, Green P, Ram CA, Miller MF, Ship II. Loss of periodontal attachment in adolescents. *Community Dent Oral Epidemiol* 1981;9:135-41.
9. Wolfe MD, Carlos JP. Periodontal disease in adolescents: Epidemiologic findings in Navajo Indians. *Community Dent Oral Epidemiol* 1987;15:33-40.
10. Kawamura M, Iwamoto Y, Wright FA. A comparison of self-reported dental health attitudes and behavior between selected Japanese and Australian students. *Journal of Dental Education* 1997;61:354-360.
11. Kawamura M, Spadafora A, Kim KJ, Komabayashi T. Comparison of United States and Korean dental hygiene students using the Hiroshima University-Dental Behavioural Inventory (HU-DBI). *International Dental Journal* 2002;52:156-162.
12. Downer MC. The improving dental health of United Kingdom adults and prospects for the future. *British Dental Journal* 1991;170:154-158.
13. Petersen PE, Aleksejuniene J, Christensen LB, Eriksen HM, Kalo I. Oral health behavior and attitudes of adults in Lithuania. *Acta Odontologica Scandinavica* 2000;58:243-248.
14. Stenberg P, Håkansson J, Åkerman S. Attitudes to dental health and care among 20 to 25-year-old Swedes: results from a questionnaire. *Acta Odontologica Scandinavica* 2000;58:102-106.
15. Kalsbeek H, Truin GJ, Poorterman JHG, Van Rossum GMJM, Van Rijkom HM, Verrips GHW. Trends in periodontal status and oral hygiene habits in Dutch adults between 1983 and 1995. *Community Dentistry and Oral Epidemiology* 2000;28:112-118.
16. Al-Zarea BK. Oral health knowledge of periodontal disease among university students. *Int J Dent* 2013;2013:647397.
17. Carneiro L, Kabulwa M, Makyao M, Mrosso G, Choum R. Oral health knowledge and practices of secondary school students, Tanga, Tanzania. *Int J Dent* 2011;2011:806258.

Source of Support: Nil; **Conflict of Interest:** None

Submitted: 15-01-2020; **Accepted:** 01-02-2020; **Published:** 29-02-2020