

# Knowledge, attitude, and practice of medical doctors towards periodontal disease

[Sreenivas Nagarakanti](#), [Venkatarao Epari](#),<sup>1</sup> and [Deepthi Athuluru](#)<sup>2</sup>

*Department of Periodontics, Narayana Dental College and Hospital, Nellore, Andhra Pradesh, India*

<sup>1</sup>*Department of Community Medicine, Narayana Medical College, Nellore, Andhra Pradesh, India*

<sup>2</sup>*Department of Pedodontics, Narayana Dental College and Hospital, Nellore, Andhra Pradesh, India*

**Address for correspondence:** Dr. Sreenivas Nagarakanti, Department of Periodontics, Narayana Dental College and Hospital, Nellore, Andhra Pradesh, India. E-mail: [sreenivasnagarakanti@yahoo.co.in](mailto:sreenivasnagarakanti@yahoo.co.in)

Received December 10, 2011; Accepted August 17, 2012.

**Copyright** : © Journal of Indian Society of Periodontology

This is an open-access article distributed under the terms of the Creative Commons Attribution-Noncommercial-Share Alike 3.0 Unported, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

## **Abstract**

The study aimed to assess the knowledge of medical doctors on the association between periodontal disease and general health and their willingness to advise their patients to seek dental treatment. In a cross-sectional survey, randomly selected medical doctors ( $n = 267$ ) practicing in Nellore District were interviewed through a questionnaire survey about their knowledge of periodontal diseases and the bidirectional relationship between general health and periodontal diseases. Data were analyzed through percentages. All the medical doctors (100%) were aware that there existed a relation between oral health and general health. But only 10% of respondents refer their patients to dentists without patients asking for referral. Very few respondents (21.3%) knew about different branches of dentistry. Screening and referral by healthcare professionals may benefit their patients by improving access to dental care. Therefore, there is a need to educate doctors about oral health and general health.

**Keywords:** Knowledge, medical doctors, practice, periodontal disease

## **INTRODUCTION**

Good oral health is an essential part of general health; however, there is a widespread perception that oral diseases are limited to the scope of dental practice. Scarce integration exists between dentists and other health-care professionals in academic, research, and professional fields.[1] Poor oral health reflects social inequalities;[2] therefore, the prevention of oral diseases should be a priority in developed and underdeveloped countries around the world. Compelling evidence links periodontal disease with systemic conditions of medical interest including diabetes,[3] pregnancy complications,[4] cardiovascular disease,[5] respiratory diseases,[6] osteoporosis,[7] rheumatoid arthritis,[8] and cancer.[9]

The prevalence of periodontitis in India is reaching epidemic proportions with serious implications for general health.[10] It is expected that health-care providers will see and refer these patients to

dentists in greater numbers. Hence, evaluating medical doctors' knowledge will assist in providing appropriate level of continuing-education programs and assessment for efficacy. Therefore, the study aimed to assess the views and knowledge of medical doctors on the association between periodontal disease and general health and their willingness to advise their patients to seek dental treatment.

## **MATERIALS AND METHODS**

This study was carried out by a cross-sectional survey using a self-administered, structured questionnaire distributed to medical doctors at hospitals and medical college in Nellore district. All physicians and internists participated in the study voluntarily, following an explanation of its purpose and objectives. The respondents were divided into four groups based on the type of service followed – those practicing in public service (Group I), those having only private practice (Group II), those practicing in teaching institute (Group III), and internists (Group IV). The questionnaire was designed by a principal investigator and distributed by the principal investigator and co-investigators. The questionnaire included 22 multiple-choice questions addressing: Socio-demographic personal characteristics, physicians' perceptions of the relationship between oral health and general health, dental referral, and source of information about oral health. The data were collected during February-June 2011.

## **RESULTS**

A total of 267 general practitioners completed the questionnaire. Their socio-demographic characteristics are shown in [Table 1](#). All 267 (100%) respondents knew at least few signs and symptoms of periodontal disease and were of the opinion that there existed a relation between oral health and general health. Among all, 86.1% (230) of respondents agreed that they referred their patients to dentists but of them only 10.1% (27) of respondents referred without the patient asking for referral, 25.8% (69) of respondents referred to a specialist, and only 9.7% (26) respondents enquired about their dental treatment in the subsequent visit [[Table 2](#)]. Among 267 respondents, only 57 (21.3%) respondents could mention all branches of dentistry. [Table 3](#) gives the source of information regarding dentistry. Statistical analysis and comparison between socio-demographic and personal characteristics did not show any significant associations, owing to the small sample size.

**Table 1**Sociodemographic personal characteristic variables (*n*=267)

	<b>Variables</b>	<b>N</b>	<b>%</b>
Age (years)	<25	74	27.7
	26-35	51	19.1
	36-45	63	23.6
	46-60	71	26.6
	>60	8	3.0
Gender	Male	142	53.2
	Female	125	46.8
Highest qualification	Internist/MBBS	107	40.1
	Diploma	53	19.9
	MD/DNB	88	33.0
Type of service	DM	19	7.1
	Public	23	8.6

**Table 2**Referral to dentist (*n*=267)

	<b>Number</b>	<b>Percentage</b>
Yes	230	86.1
No	37	13.9
Self referral	27	10.1
Patient asking	94	35.2
Self referral/Patient asking	109	40.8
General dentist	161	60.3
Specialist	69	25.8
Enquiring about dental treatment in next visit	26	9.7

**Table 3**

Source of information about oral health (n=267)

Source	Number	Percentage
Magazine	126	47
Media	161	60
Friends and relatives	103	38.5
Dentists	159	59.5
Internet	3	1
Books and journals	34	13
Continuing dental education programs	9	3

## **DISCUSSION**

Medical doctors may have an advantageous position compared to the dentists to provide early patient counseling about oral health because children and adults attend advisable offices more often than to dental offices and are more likely to be affiliated to medical than to dental insurance. Moreover, they are more likely to work in rural and underserved areas than dentists, which represent a remarkable opportunity for physicians to work as active players in oral health promotion. Early diagnosis of gingivitis and periodontitis by medical doctors, along with patient referral to dental care, will surely improve the oral health and general health status of the population. To date, many studies have demonstrated that periodontitis is a risk factor for many systemic conditions. Although this information is easily available in the medical literature, little information is available regarding the knowledge of medical doctors with regard to periodontitis. Despite the evidence linking periodontitis with systemic diseases, most medical doctors are unaware of the potential benefits of maintaining a good oral health. Among medical doctors practicing in Nellore district, this study showed that while knowledge regarding signs and symptoms of periodontal disease and relation between oral health and general health was high, importance of regular dental check-ups was low even though most of the dental clinics (89.5%) are within 1 km from their work place. Among 267 respondents, only 69 (25.8%) referred their patients to a specialist and only 27 respondents (10.1%) referred for regular dental check up.

## **CONCLUSION**

Screening and referral by health-care professionals may benefit their patients by improving access to dental care. Therefore, there is a need to educate doctors about oral health and general health. Doctors should be informed about the increased risk of periodontal problems and the importance of having dental check-ups. These results might not reflect the actual opinions of all medical doctors due to small sample size. Sample size should be large enough to divide into groups and to detect significant differences for some of the outcomes between the groups and this survey should be conducted in other parts of India and the world.

The potential benefits of physicians as active players in oral health need to be emphasized in medical schools and continuing medical education programs, where curriculum contents in oral health may be largely insufficient. It is time to change the perception of dentists and dental hygienists as the only ones responsible for maintaining good oral health in the population.

## **REFERENCES**

1. Ramirez JH, Arce R, Contreras A. Why must physicians know about oral diseases? *Teach Learn Med.* 2010;22:148–55. [PubMed: 20614382]
2. Timis T, Danila I. Socioeconomic status and oral health. *J Prev Med.* 2005;13:116–21.
3. Løe H. Periodontal disease. The sixth complication of diabetes mellitus. *Diabetes Care.* 1993;16:329–34. [PubMed: 8422804]
4. Jeffcoat MK, Geurs NC, Reddy MS, Goldenberg RL, Hauth JC. Current evidence regarding periodontal disease as a risk factor in preterm birth. *Ann Periodontol.* 2001;6:183–8. [PubMed: 11887462]
5. Beck JD, Offenbacher S. The association between periodontal diseases and cardiovascular diseases: A state-of-the-science review. *Ann Periodontol.* 2001;6:9–15. [PubMed: 11887476]
6. Garcia RI, Nunn ME, Vokonas PS. Epidemiologic associations between periodontal disease and chronic obstructive pulmonary disease. *Ann Periodontol.* 2001;6:71–7. [PubMed: 11887473]
7. Wactawski-Wende J. Periodontal disease and osteoporosis: Association and mechanism. *Ann Periodontol.* 2001;6:197–208. [PubMed: 11887465]
8. Al-Katma MK, Bissada NF, Bordeaux JM, Sue J, Askari AD. Control of periodontal infection reduces the severity of active rheumatoid arthritis. *J Clin Rheumatol.* 2007;13:134–7. [PubMed: 17551378]
9. Meyer MS, Joshipura K, Giovannucci E, Michaud DS. A review of the relationship between tooth loss, periodontal disease, and cancer. *Cancer Causes Control.* 2008;19:895–907. [PMCID: PMC2723958] [PubMed: 18478344]
10. Shaju JP, Zade RM, Das M. Prevalence of periodontitis in the Indian population: A literature review. *J Indian Soc Periodontol.* 2011;15:29–34. [PMCID: PMC3134042] [PubMed: 21772718]