

A Survey on Acquaintance, Orientation and Behavior of Medical Practitioners toward Periodontal Diseases in Naroda Area of Ahmedabad: A Questionnaire Study

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ABSTRACT

Background: Periodontics is a fast evolving dental specialty. But periodontics is still seen to be nascent among different health professionals.

Aim: To assess Acquaintance, Orientation And Behavior Of Medical Practitioners Toward Periodontal Diseases in Naroda Area of Ahmedabad.

Methodology: A cross sectional survey using a self-administered, structured questionnaire was conducted on 200 medical practitioners Naroda Area of Ahmedabad. They were randomly selected. Ethical committee clearance was taken from the institute. Data were analyzed through percentages and chi square statistical analysis was performed.

Results: Most of them have knowledge regarding the signs and symptoms of periodontal disease. However, majority of them are unaware about dental specialist referral and association with systemic disease. Most of them refers the patient to general dentist. The p value calculated was <0.0001. The results are significant $p < 0.05$ their orientation and behaviour was significant but when questions asked about periodontal disease the results were not significant. Comparison of responses (rightly answered) among the study subject were analyzed by computerized SPSS (version 20). Level of significance was set at $P < 0.05$. The chi square test was found to be non-significant. They had limited knowledge about the association between periodontal health and general health.

Conclusion: Acquaintance, Orientation And Behavior Of Medical Practitioners Toward Periodontal Diseases was found inadequate among medical practitioners in Naroda Area of Ahmedabad. Periodontal educational program is strongly recommended.

KEYWORDS: Acquaintance, Orientation, Behavior, Periodontal Diseases, Medical practitioners

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 practice¹. The surgeon general's report 2 recognizes "the mouth as a mirror of health or disease, as a guard or ward of warning, and as a potential source of pathogens affecting other systems." thus Medical practitioners are important in helping with periodontal health promotion. ² Oral health problems are frequently overshadowed by other health needs, which are perceived to be more obvious and urgent.

The term "periodontal diseases" is a nonspecific term that refers to any disease or disease process that affects the periodontium ³. The prevalence of periodontitis in India is reaching epidemic proportions with serious implications for general health.⁴ Of late, periodontal disease is thought to have systemic ramifications and has been implicated in a wide range of conditions such as hypertension, stroke, atherosclerosis, poor pregnancy outcome, to name a few. It is

expected that health-care providers will see and refer these patients to dentists in greater numbers⁵. Many studies are carried out to evaluate the awareness of patients who visit the hospitals. There are very few studies addressing periodontal awareness in various healthcare professionals. Hence, evaluating medical doctors' Acquaintance, Orientation And Behavior 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 association between periodontal disease and general health and their willingness to advise their patients to seek dental treatment.

MATERIALS AND METHODS

Source of data

This survey was conducted among general practitioners in Naroda Area of Ahmedabad. A total of 200 doctors participated in this study in the month of February - April, 2017. The study was approved by the ethical committee of

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Method of collection of data

A cross-sectional survey of 200 medical practitioners was carried out in Naroda Area of Ahmedabad, using a self-administered, structured questionnaire distributed to medical doctors at hospitals and private clinic following an explanation of its purpose and objectives. A simple random sampling was done.

The first part of the questionnaire recorded information about general demographics like doctor's age, sex, educational qualification, type of service, location of practice and years in practice. Both male and female medical practitioners from age group of < 25, 26-35, 36-45, 46-60, >60 years were included. All MBBS, Diploma, MD/DNB, DM participated in the study voluntarily. The respondents were divided into two groups based on the type of service followed – those practicing in public service, those having only private practice. The second part contained questions regarding the referral to dentist, the behaviour of medical practitioners was obtained by providing this set. They were asked to tick the most appropriate answer according to their knowledge from the given list of answers. Third part of the questionnaire carried seven questions and inquired about general practitioners orientation towards periodontal disease, including the their primary cause, earliest symptom/sign,. The knowledge of the bidirectional relationships between periodontal disease and different systemic conditions such as Myocardial Infarction and haematological disorders. For this set of questions, the participants were given the choice of "True" or "False". Filled questionnaires were collected on the same day.

Inclusion Criteria:

The medical practitioners should have registered in the Medical Council of India
They should be practicing in private clinics or hospital in

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They should be practicing in private clinics or hospital in Naroda Area of Ahmedabad

Exclusion Criteria:

General Dentists and Periodontists are excluded from the study

Statistical analysis

Percentage for the survey was calculated to analyse the results. Chi-square statistical analysis was done to obtain the result.

RESULTS

A total of 200 Medical Practitioners took part in the survey. Response rate was 100%. Table 1 represents the **Sociodemographic personal information**. Among this 116 (58%) were males and 84 (42%) were females. The study included 36(18%) MBBS, 42 (21%) diploma, 105(52.5%) MD/DNB and 17(8.5) DM. The mean age was between 46-60 accounting for 112(56%) medical practitioners and 96(48%) have been practicing for more than 10 years. Out of 200, 132(66%) works in private sector and 68(34%) works in public sector.

Table 2 demonstrates referral to dentist, among which 105 (51%) referred to general dentist. Half of the respondents donot refer the patients to specialist 12 (6%) and never asked their patients about dental treatment in next visit 30 (15%).

Table 3 represents chi square results for orientation and behaviour of medical practitioners for dentist. Chi square obtained was 70.3304. P value was <0.00001. The result was significant at $p < 0.05$.

Table 4 demonstrates questions used in the survey. It shows the true/false knowledge items with the correct answer and the percentage of subjects who answered each question correctly.

Table 5 shows the distribution of correct responses given by participants based on qualification. MBBS have the least knowledge when compared to Diploma, MD/DNB and DM about the potential effects of periodontal diseases on systemic health. It shows the reported knowledge about periodontal diseases based on a questionnaire carrying true/false options, percentage of questions answered correctly and wrongly. Chi square statistics was calculated to be 6.8364. The P value was 0.0773. Result were not significant at $p < 0.05$

DISCUSSION:

This study was mainly aimed at medical practitioners as they are the primary channel for reaching the people and

imparting information about health in such a way that the recipient is motivated to use that information for the protection of his own, his family's or his community's health. The evidence based decision process has led to the inclusion of periodontal disease as one of disease for screening by any general practitioner. Medical doctors may have an advantageous position compared to the dentists to provide early patient counselling about oral health as children and adults attend advisable offices more often than to the dental offices and are hence more likely to be affiliated to medical than to the dental insurance⁶. Moreover, they are more likely to work in rural and underserved areas than dentists, which represent a remarkable opportunity for medical practitioners to work as active players in oral health promotion.

Medical professionals are required to have a basic periodontal knowledge as they are the first person to encounter oral problems in patients while practicing such as swelling in the oral cavity, bleeding of the gums, if they examine the oral cavity regularly these conditions can be very well identified in the initial stages. Early diagnosis of gingivitis and periodontitis by medical doctors, along with patient referral to periodontist, will surely improve the oral health and general health status of the population¹. Till date, there are lot of studies demonstrating periodontitis as a risk factor for many systemic conditions. Although this information is very easily available in the medical literature, there is little information available regarding the knowledge of medical doctors with regard to periodontitis. Despite the evidence that there is link between periodontitis and systemic diseases, most medical doctors are unaware of the potential benefits of maintaining a good oral health. The present study reveals Acquaintance, Orientation, Behavior towards periodontal diseases, the knowledge about the periodontal diseases it's causes and association with systemic conditions was not significant. The drawback of the present study was it contained close ended questions, so the assessment of knowledge may be affected. The results presented indicate the opinions of small sample of medical practitioners in Naroda Area of Ahmedabad. More larger and prospective investigations should be carried out.

CONCLUSION

Through the findings in this study, it can be concluded that general medical practitioners have inadequate knowledge regarding periodontal diseases. Hence, oral health related training should be conducted. Increasing the knowledge of general physicians about the link of oral health and its bidirectional effect with systemic health will undoubtedly improve their attitude and behavior toward oral diseases. It appears likely that this new knowledge that is being gained in the discipline of periodontal medicine will serve as an impetus to further coalesce medicine and dentistry.

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Table 1: Sociodemographic personal characteristic variables (n=200)

| | Variables | Number | Percentage% | |
|---|------------------------------|---------|-------------|------|
| 1 | Age (years) | <25 | 5 | 2.5 |
| | | 26-35 | 22 | 11 |
| | | 36-45 | 42 | 21 |
| | | 46-60 | 112 | 56 |
| | | >60 | 19 | 9.5 |
| 2 | Gender | Male | 116 | 58 |
| | | Female | 84 | 42 |
| 3 | Highest qualification | MBBS | 36 | 18 |
| | | Diploma | 42 | 21 |
| | | MD/DNB | 105 | 52.5 |
| | | DM | 17 | 8.5 |
| 4 | Type of service | Public | 68 | 34 |
| | | Private | 132 | 66 |
| 5 | Location of practice | Urban | 52 | 26 |
| | | Rural | 148 | 74 |
| 6 | Years in practice | 0-2 | 12 | 6 |
| | | 2-5 | 33 | 16.5 |
| | | 5-10 | 59 | 29.5 |
| | | >10 | 96 | 48 |

MBBS – Bachelor of Medicine/Bachelor of Surgery; MD – Doctor of Medicine; DM – Doctorate in Medicine; DNB – Diplomate in National Board

Table 2: Referral to dentist (n=200)

| | | Number | Percentage |
|---|--|--------|------------|
| 1 | Yes | 48 | 24 |
| 2 | No | 8 | 4 |
| 3 | General dentist | 102 | 51 |
| 4 | Specialist | 12 | 6 |
| 5 | Enquiring about dental treatment in next visit | 30 | 15 |

Table 3 Orientation and behaviour of medical practitioners for dentist (cell total) [chi square statistic for each cell]

| | | MBBS | Diploma | MD/DNB | DM | |
|---|--|------------------|-----------------|-----------------|----------------|-------------|
| 1 | Yes | 9 (8.64) [0.01] | 13(10.08)[0.85] | 16(25.20)[3.36] | 10(4.08)[8.59] | 48 |
| 2 | No | 5 (1.44) [8.80] | 2(1.68)[0.06] | 0(4.20)[4.20] | 1(0.68)[0.15] | 8 |
| 3 | General dentist | 11(18.36)[2.95] | 19(21.42)[0.27] | 66(53.55)[2.89] | 6(8.67)[0.82] | 102 |
| 4 | Specialist | 9(2.16)[21.66] | 3(2.52)[0.09] | 0(6.30)[6.30] | 0(1.02)[1.02] | 12 |
| 5 | Enquiring about dental treatment in next visit | 2(5.40)[2.14] | 5(6.30)[0.27] | 23(15.95)[3.34] | 0(2.55)[2.55] | 30 |
| | | 36 | 42 | 105 | 17 | 200 (total) |

Chi square statistic is 70.3304.

P value is <0.00001

The result is significant at p<0.05

Table 4: True/false knowledge items with correct answers and percentages of subjects who answered correctly (n = 200)

| | Questions | Correct answer | Answering correctly (%) |
|---|---|----------------|-------------------------|
| 1 | Bleeding gums, exposed roots, loose teeth are signs and symptoms of periodontal disease | True | 66 |
| 2 | Majority of Indian population suffer from periodontal disease | True | 54 |
| 3 | Certain systemic condition clearly may affect the initiation and progression of gingivitis and periodontitis | True | 30 |
| 4 | Periodontal disease does not have any potential effect on any organ systems | False | 58 |
| 5 | There is an association between poor dental health and myocardial infarction | True | 43 |
| 6 | Hematological disorders like production and function of leukocytes does not have any effect on the periodontium | False | 70 |
| 7 | There is a two way relationship associated with certain Systemic disease and periodontal disease | True | 65 |

Table 4: Comparison of responses among the study subjects (cell total) [chi square statistic for each cell]

| | Answered correctly | Answered wrongly | |
|---------|--------------------|-------------------|-----|
| MBBS | 20 (25.38) [1.14] | 16 (10.62) [2.73] | 36 |
| Diploma | 31 (29.61) [0.07] | 11 (12.39) [0.16] | 42 |
| MD/DNB | 80 (29.61) [0.48] | 25 (30.98) [1.15] | 105 |
| DM | 10 (11.98) [0.33] | 7 (5.01) [0.79] | 17 |
| | 141 | 59 | 200 |

Chi square statistics is 6.8364

P value is 0.0773

Result is not significant at p <0.05

Questionnaire

Date:

1. Name:

2. Age (years)

<25 26-35 36-45 46-60 >60

3. Gender

Male Female

4. Highest Qualification
 MBBS Diploma MD/DNB DM

5. Type of service.
 Public Private Teaching institute

6. Location of practice
 Urban Rural

7. Years in practice
 0-2 2-5 5-10 >10

8. Referral to dentist (Tick any of following)

Yes

No

General dentist

Specialist

Enquiring about dental treatment in next visit

9. True/false knowledge items

A. Bleeding gums, exposed roots, loose teeth are signs and symptoms of periodontal disease

True False

B. Majority of Indian population suffer from periodontal disease

True False

C. Certain systemic condition clearly may affect the initiation and progression of gingivitis and periodontitis

True False

D. Periodontal disease does not have any potential effect on any organ systems

True False

E. There is an association between poor dental health and myocardial infarction

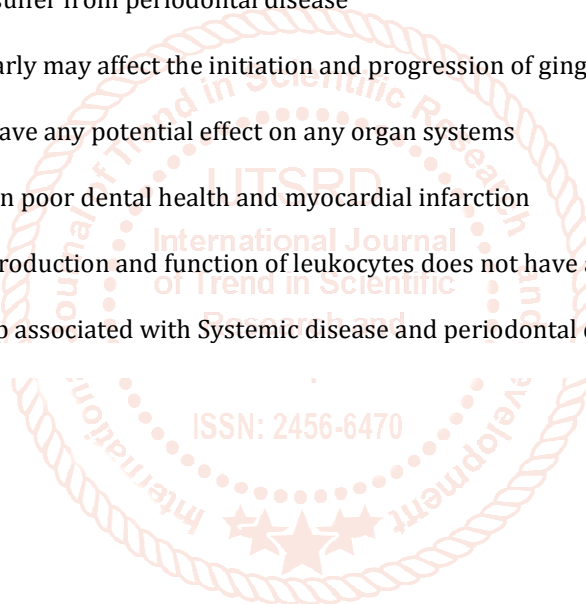
True False

F. Hematological disorders like production and function of leukocytes does not have any effect on the periodontium

True False

G. There is a two way relationship associated with Systemic disease and periodontal disease

True False



Signature