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Dentistry Section

Awareness and Knowledge of Common Oral Diseases Among Primary Care Physicians

T. SARUMATHI, B. SARAVANAKUMAR, MANJULA DATTA, THILAGAVATHI NAGARATHNAM

ABSTRACT

Objective: The objectives of this study were to examine the level of awareness of the common oral disease amongst the primary care physicians in Chennai, India and to study the proportion of the routine oral examination among them.

Method: This study was a cross-sectional, self administered, questionnaire survey which was done among 70 primary care physicians of Chennai, India. The questionnaire assessed the proportion of the routine oral examination and the knowledge and the awareness about the common dental problems among the primary care physicians.

Result: This study showed moderate awareness about the signs and symptoms of the common oral diseases. There appeared to be a low awareness about the treatment of limited mouth opening and the causes of white patches. 85.9% of the doctors said that they routinely examined the oral cavity; 4.2% said that they sometimes did so. 4.2% of the sample said that they did not perform a routine oral examination, whilst another 4.2% said that they examined the throat only.

Conclusion: The information which was gleaned from this study can help in developing a focused module which is aimed at the practising primary care physicians, and to suggest appropriate additions to the curriculum of the medical graduates, so as to enable an early detection, an appropriate referral, and an ultimately improved oral and general health of our population.

Key Words: Oral health, Knowledge, Primary care physicians

INTRODUCTION

Oral diseases/conditions and orofacial trauma are widely prevalent and costly to treat; yet they are largely preventable [1]. Most of these have an insidious onset, and are chronic and asymptomatic until they have reached an advanced stage. Also, there are several systemic diseases with oral manifestations, many of which manifest earlier than their systemic counterparts. This makes a routine oral examination an extremely important and a viable area for the early detection and the treatment of a gamut of oral and non-oral diseases.

The first contact for most of the patients is usually with a general medical practitioner [2]. Inspection of the oral cavity by a doctor has been accepted as a part of the physical examination for over a century, and if it is done on a routine basis, it can considerably reduce the morbidity and mortality which result from oral disease [3]. A majority of the doctors who were studied by Morgan et al (84%), felt that it was important to examine the patients' mouths. Only an alarming 19% of the doctors (2 p=0.0001) routinely did so. 56% of the doctors did not feel confident in examining the oral cavity and most (77%) did not think that they had sufficient training to do this examination. The gravity of the situation is evident by the fact that an early squamous carcinoma was misdiagnosed by 80% of the doctors (2 p=0.0001) [4].

This study was undertaken to address this crucial issue, in an attempt to examine the awareness and the knowledge on the common oral and dental problems among the general practitioners. It was planned to use the information which was gleaned, to develop a focused module which was aimed at the practising primary care physicians, and to suggest appropriate additions to the curriculum of the medical graduates, so as to enable an early detection, an appropriate referral, and an ultimately improved oral and general health of our population.

OBJECTIVE

The objectives of this study were:

1. To examine the level of awareness on the common oral diseases amongst the primary care physicians in Chennai, India.

2. To study the proportion of the routine oral examination among them.

MATERIALS AND METHODS

A Delphi group of experts in Oral health, Preventive and Community dentistry helped in fine tuning the content and the methodology of this study. The common, albeit important oral and dental conditions were identified. An appropriate instrument which could measure the proportion of the routine oral examination and the knowledge and awareness about these conditions was developed, along with a suitable ranking scale, to evaluate the responses. This was then pre tested and an expert and peer consultation verified the validity of the content.

A cross sectional study was undertaken. This study was carried out in the city of Chennai, south India, in the corporation zones 3(divisions 32,33,34 and 35) and 8 (divisions 117,118 and 119) which were randomly selected from the list of zones in the Chennai Corporation. The sample size consisted of 70 practitioners of allopathic medicine, with a basic degree in medicine (MBBS), and

those who had specialized in general medicine (MD), with an examination rate of at least 5-10 patients per day. The practitioners of other systems of medicine (homeopathy, Sidha) and the doctors who had specialized in other fields of allopathic medicine (Eg. Surgery, Nephrology, Cardiology, etc.) were excluded from the study.

According to the sampling technique which has been described above, a random sample of the streets in these wards was selected from the corporation divisions. The practising primary care physicians from these streets were approached and their informed consents were obtained. After explaining the purpose of the study to them, the questionnaires were handed over to them, who rated it themselves.

Their responses were then ranked and evaluated according to the number of correct responses which were chosen. The incorrect responses did not receive any reduction in the scores. The individual responses to each question were evaluated according to the ranking scale and an individual was classified as having a low, moderate or a high knowledge or awareness in that particular area. The areas with poor awareness were identified. The responses were also classified according to whether they came from a doctor with a basic qualification in medicine (MBBS) or with an advanced qualification in medicine (MD). Another classification was made according to the number of years of experience of the doctors.

The difference between the subjective perception of the awareness and the actual responses on the questionnaire, and the doctors' perceptions of the necessity of the oral examination were also looked into, as was also their criteria, for referral to a dentist.

RESULTS

The sample consisted of 71 physicians, 51 with an MBBS qualification and 20 with MD degrees. Twenty-seven subjects had an experience of 10 years or less, with a mean of 4.96 years and a standard deviation of 3.12. Forty-four subjects had been practising for more than 10 years. The mean duration of the practice for this group was 20.8 years, with a standard deviation of 6.17.

Question	Low Awareness	Moderate Awareness	High Awareness
Referral	31	35	5
Caries	23	41	7
Hygiene	14	47	10
Gum	20	46	5
White Patch	35	32	4
Ulcers	22	47	2
Swelling	19	48	4
TMJ	42	20	9
Systemic	17	50	4

[Table/Fig-1]: Areas of low, moderate and high awareness

In the sample which was tested, there appeared to be a moderate awareness about the signs and symptoms of caries and gum disease; the treatment of poor oral hygiene; the aetiology of the mouth ulcers and the facial swelling; the conditions that needed to be referred to a dentist; and the systemic manifestations of oral disease. There appeared to be only a low awareness on the treatment of the limited mouth opening and the causes of white patches (one of which is oral precancer) [Table/Fig-1].

The results did not suggest a statistically significant difference in response to any question between the doctors with an MBBS qualification, and those with an MD qualification [Table/Fig-2].

The advice and treatment for a painful or difficult mouth opening was the only area where the doctors with more than 10 years of experience scored over their less experienced counterparts (p=0.013); there was no statistically significant difference between the doctors with different durations of practice in any other area [Table/Fig-3].

All the doctors who were interviewed, felt that it was important to examine the patients' oral cavity, and 85.9% of the doctors said that they routinely did so; 4.2% said that they sometimes did so. 4.2% of the sample said that they did not perform a routine oral examination, whilst another 4.2% said that they examined the throat only. One subject did not respond to this question.

Only 4.2 % of our sample said that they were not confident about examining the oral cavity. 2 subjects did not respond, and 92.95% of our sample felt confident about examining the oral cavity.

DISCUSSION

The overall awareness on the oral health among the medical practitioners in our sample appeared to be moderate. This can and should be improved by means of focused educational packages, with a special emphasis on the areas that show moderate to low or low awareness.

Since no significant difference was observed overall between the practitioners with different qualifications and different amounts of experience, a single cohesive package could be applied to a large cross section, thus avoiding the need for different versions of the educational package, for catering to various subpopulations of physicians.

Question	Awareness level (MBBS)			Awareness level (MD)			2 Value	P Value
	Low	Mod.	High	Low	Mod.	High		
Referral	24(47.1%)	23(45.1%)	4(7.8%)	7(35%)	12(60%)	1(5%)	1.29	0.5245
Caries	18(35.3%)	28(54.9%)	5(9.8%)	5(25%)	13(65%)	2(10%)	0.72	0.69
Hygiene	11(21.6%)	31(60.8%)	9(17.6%)	3(15%)	16(80%)	1(5%)	2.75	0.253
Gum	15(29.4%)	32(62.7%)	4(7.8%)	5(25%)	14(70%)	1(5%)	0.38	0.8266
White Patch	27(52.9%)	22(43.1%)	2(3.9%)	8(40%)	10(50%)	2(10%)	1.58	0.4537
Ulcers	20(39.2%)	30(58.8%)	1(1.96%)	2(10%)	17(85%)	1(5%)	5.92	0.052
Swelling	14(27.5%)	34(66.7%)	3(5.8%)	5(25%)	14(70%)	1(5%)	0.08	0.9628
TMJ	33(64.7%)	14(27.5%)	4(7.8%)	9(45%)	6(30%)	5(25%)	4.31	0.1157
Systemic	12(23.5%)	37(72.5%)	2(3.9%)	5(25%)	13(65%)	2(10%)	1.07	0.5853

[Table/Fig-2]: Difference in awareness between doctors with MBBS and MD qualifications

Question	Awareness (≤10 yrs exp.)			Awareness (>10 yrs exp.)			2 Value	P Value
	Low	Moderate	High	Low	Moderate	High		
Referral	13(48.1%)	13(48.1%)	1(3.7%)	18(40.9%)	22(50%)	4(9.1%)	0.9	0.637
Caries	11(40.7%)	15(55.6%)	1(3.7%)	12(27.2%)	26(59.1%)	6(13.63%)	2.65	0.2661
Hygiene	8(29.6%)	18(66.7%)	1(3.7%)	6(13.63%)	29(65.9%)	9(20.5%)	5.51	0.064
Gum	11(40.7%)	14(57.8%)	2(7.4%)	9(20.5%)	32(72.6%)	3(6.8%)	3.58	0.1671
White Patch	16(59.3%)	11(40.7%)	0	19(43.2%)	21(47.7%)	4(9.1%)	3.51	0.173
Ulcers	8(29.6%)	18(66.7%)	1(3.7%)	14(31.8%)	29(65.9%)	1(2.27%0	0.15	0.928
Swelling	10(37%)	16(59.3%)	1(3.7%)	9(20.5%)	32(72.7%)	3(6.8%)	2.46	0.2928
TMJ	21(77.8%)	6(22.2%)	0	21(47.7%)	14(31.8%)	9(20.5%)	8.62	0.013
Systemic	8(29.6%)	19(70.4%)	0	9(20.5%)	31(70.5%)	4(9.1%)	3.04	0.2184

[Table/Fig-3]: Difference in awareness between doctors with ≤10 years and >10 years of experience

Analyzing the responses, based on the number of years of experience, was done to check whether the recent graduates retained more of the oral health knowledge as opposed to their seniors, or whether time and experience increased the awareness levels. The lack of a significant difference between these two groups could indicate that both of these factors played a role in the awareness levels.

It was also observed that most of the physicians in our sample felt confident with the oral examination, though their responses revealed only a moderate level of awareness, at best. Most of them asserted that they did examine the oral cavity of their patients routinely, though this response could also have been made due to an interviewer bias.

The results of this study agreed with those of the study of Morgan et al., [2].

Limitations of the study:

The ranking of the responses was done quantitatively, for the sake of simplicity, though it might have been more meaningful to assign higher scores for the more significant responses and negative scores for the wrong responses.

The number of items in our instrument had to be limited, because of the nature of the sample. We did not expect the busy medical practitioners to devote more than 5 minutes of their time in answering our questions. Hence, though the questions covered a gamut of important areas, no in-depth probing could be carried out. A focus group interview would probably be a better way for gathering more information in the specific areas where deficiencies had been revealed by our study.

CONCLUSIONS

The general physicians refer patients with oral mucosal lesions more frequently to other medical specialists, rather than to the dentists or the oral and maxillofacial surgeons, who might be better equipped to handle these conditions effectively [5,6].

A simple oral screening may serve in identifying the patients who need a dental care with a high degree of diagnostic accuracy. This enables the primary care physicians to screen for oral and dental problems and to refer the patients in the same way, as they do for other special treatment problems [7].

The oral and general health implications of a delayed dental treatment and the current physician examination and referral practices underline the fact that the primary health professionals have an important role to play in encouraging the dental attendance, in reducing the morbidity, mortality and the costs of treatment, and in promoting both the general and oral health.

It is however, unrealistic to expect all the medical practitioners to be conversant with all the nuances of the oral health and diagnosis. The identification of specific areas that have important health implications for the patient, and at the same time, the conditions to which the doctors can be easily sensitized to, is therefore a priority.

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AUTHOR(S):

1. Dr. T. Sarumathi
2. Dr. B. Saravanakumar
3. Dr. Manjula Datta
4. Dr. Thilagavathi Nagarathnam

PARTICULARS OF CONTRIBUTORS:

1. Reader, Department of Oral Medicine & Radiology, Sree Balaji Dental College & Hospital, Bharath University, Pallikaranai, Chennai, India.
2. Reader, Department of Oral Maxillofacial Surgery, Sree Balaji Dental College & Hospital, Bharath University, Pallikaranai, Chennai, India.
3. Epidemiologist and Research Consultant, ASPIRE.
4. Professor & HOD, Adhiparasakthi Dental College & Hospital, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr. T. Sarumathi,
Reader, Department of Oral Medicine & Radiology,
Sree Balaji Dental College and Hospital,
Bharath University,
68/30 Thiruvalluvar Street,
Ethiraj Nagar, West Mambalam,
Chennai - 600033, TN, India.
Phone: +91 9444385847
E-mail: drcharumathi@gmail.com

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