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RESEARCH ARTICLE

ASSESSMENT OF KNOWLEDGE, ATTITUDE AND PRACTICES OF MEDICAL PRACTITIONERS
TOWARDS DENTAL CARE IN RURAL AREAS OF DAVANGERE TALUK

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ABSTRACT

Background: The roles of physicians in oral healthcare delivery are very important due to the unequal distribution of the low oral health manpower as well as the lack of awareness of patients concerning the treatment of oral health problems by dentists

Material and Method: The present study was undertaken to assess knowledge, attitude and practice of dental awareness among medical practitioners in Davangere, Karnataka, India. The present study is Cross-sectional survey conducted among the medical practitioner. India. 250 medical practitioners from 4 different zones (75 from each zone) were randomly selected for the present study. The data pertaining to their knowledge, attitude and practice about oral health was gathered using a self administered questionnaire. The data was analyzed using descriptive statistics

Results: Majority of the medical doctors were aware that there existed a relation between oral health and general health and were not aware that, Caries is infectious and transmissible from mother to child. 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.

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INTRODUCTION

Health is a valuable asset not only for an individual, but also for the social system. A nation may progress more rapidly when the populations are healthier and lead a productive life. Oral health is now recognized as equally important in relation to general health. Various factors like nutritional status, tobacco smoking, alcohol, hygiene, stress, etc. are linked to a wide range of oral diseases forming the fundamental basis of the common risk factor approach to prevent the oral diseases, but there is a 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. (Ramirez *et al.*, 2010) Many oral conditions are intimately related to systemic diseases. The potential impact of many systemic disorders on oral health is well documented, current facts suggests that periodontal infection may significantly enhance the risk for certain systemic diseases or alter the natural course of systemic conditions (Balwant Rai 2007). Oral cavity is the site of many infectious and inflammatory diseases. According to National Oral Health Survey dental caries is prevalent among 63.1% of 15years old and as much as 80% among adults in age group of 35-44 years. Periodontal diseases are prevalent in 67.7% of 15

years old and as much as 89.6% of adults in the age group of 35-44 years. (National oral health survey 2004) Optimum total health care requires the combined efforts of the medical and dental professions. Oral diseases/conditions and oro-facial trauma are widely prevalent and costly to treat; yet they are largely preventable. (Drum Ann *et al.*, 1998) Dentists as well as other health professionals realize that oral health cannot be divorced from the general health of the patient. Many oral conditions are intimately related to systemic diseases. Optimally, total health care requires the combined efforts of the medical and dental professions. (Ostberg *et al.*, 1999) The health care professionals working in rural areas come across a number of patients in their routine practices. With proper knowledge and oral health behavior, they can play an important role in the oral health education of individuals and groups and act as role models for patients, friends, families and the community at large. Likewise, there were no reported studies on oral health knowledge, attitude and behaviors of health professionals working in rural areas. Hence, the present study was undertaken to assess the oral health knowledge, attitude and practices among the various health professionals.

MATERIALS AND METHODS

The present study is a cross sectional survey conducted among the medical practitioner in rural areas of Davangere, Karnataka, India. Medical practitioners having minimum qualification of M.B.B.S, B.A.M.S, B.H.M.S, practicing in rural areas of

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Davangere and who provided the informed consent were included in the study. 250 medical practitioners from 4 different zones (75 from each zone) were randomly selected for the present study. 65 had an experience of 10 years or less and the rest had an experience of more than 10 years. A convenience sampling technique was employed to select health professionals. The study group was given a pre-designed, pre-tested questionnaire. The questionnaire used in the study consisted of two parts. The first part was related to demographic data. The second part consisted of eleven questions of which one was open ended question and the rest were to assess knowledge, attitude and practices towards oral health.

The medical practitioners were approached personally; the purpose of the study was explained. The identity of the practitioners was maintained anonymous and the practitioners were instructed to fill the questionnaire and drop it in into a box to reduce social desirability bias. The questionnaire was administered by one of the two investigators and each practitioner was given 15 min to fill in the questionnaire.

RESULTS

Questionnaires were returned by all the medical practitioners within the scheduled time (15 minutes). The data was analyzed using descriptive statistics. Majority of the interviewees (96%) agreed that there exists a relationship between oral and general health. (96%) respondents considered that poor oral hygiene, and 73% of the medical practitioners considered eating sweet food as a cause of dental caries. 77% of medical practitioner considered that dental caries is not an infectious and transmissible from mother to child and only 23% knew that it is infectious and transmissible from mother to child.

Around (58%) said Oro- facial pain is due to both dental caries, 76% thought it's due to gum diseases and only 8% of the practitioner's reflection was on referred pain from other parts of body. About 79% of the respondents were not capable to be acquainted with precancerous and cancerous lesions; only 21% were able to make out it. Among those who could spot, 68% referred their patients to the dentist followed by 43% to general

| S.No. | Question asked (Knowledge) | Options | | | |
|-------|------------------------------------------------------------------------------------------------|---------|-----|---|---|
| | | A | B | C | D |
| 1 | Do you think there is any relation between oral health and general health a. Yes b. No | 96% | 04% | - | - |
| 2 | Do you think medical practitioners play a pivotal role in oral health care? a. Yes b. No | 91% | 09% | - | - |
| 3 | Do you consider oral examination as a part of routine general check up? a. Yes b. No | 32% | 68% | - | - |

| S.No | Question asked (Attitude) | A | B | C | D |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|----|----|
| 1 | Is dental caries a infectious disease a. Yes b. No | 77% | 23% | | |
| 2 | Is dental caries transfer from mother to child a. Yes b. No | 47% | 53% | | |
| 3 | What do you think are the common causes of dental problems a. Poor oral hygiene b. Eating excess sweet c. Hereditary d. All of the above e. None of the above | 96% | 73% | 1% | 3% |
| 4 | Do you feel a dental wing is necessary in a rural area a. Yes b. No | 98% | 2% | - | - |
| 5 | Common causes of pain in the Orofacial region a. Decayed tooth b. Gum problems c. Referred Pain from others parts of the body d. All of the above | 58% | 76% | 8% | 2% |

| S.No | Question asked (Practices) | A | B | C | D |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|
| 1 | Are you able to recognize the precancerous and cancerous lesions in the oral cavity a. Yes b. No | 21% | 79% | - | - |
| 2 | If a patient with oral cancer visit your clinic what would be your plan. a. Excision of the lesion and send for biopsy b. Refer to General Hospital c. Refer to General surgeon d. Refer to Dental Surgeon | - | 21% | 43% | 68% |
| 3 | Do you educate your patients about the importance of oral health a. Yes b. No | 3% | 97% | - | - |

surgeon and 21% to general hospitals. Nearly 97% of the practitioner's respond that they don't alert, but only a minor 3% retort they instruct their patients with respect to oral health, since majority were not trained with respect to oral health aspects and recommended for a dental wing in every primary health centers of rural areas.

DISCUSSION

Implicated modern medicine has become a dual effort of several groups of health workers, both medical and paramedical. Various health professionals working together constitute the health team to provide medical care for the patient and the society at large. Such health teams come across a variety of people every day as part of their profession. A need was felt for assessing the oral health-related knowledge, attitude and practices of various health professionals and their role in providing oral health care for patients and the community. Poor oral conditions may adversely affect general health and certain medical conditions may have a negative impact on oral health. (Radha *et al.*, 2008) Physician could play a pivotal role in oral public health. (Jorge Hernn Ramirez *et al.*, 2010) They are endowed to have a basic dental knowledge as they do come across various oral problems among patients while practicing such as tooth ache, swelling in oral cavity, bleeding gums etc, if they examine the oral cavity regularly these conditions can be identified at the initial stages reducing the complication and cost of the treatment. This cross sectional study was conducted to assess the dental knowledge, attitude and awareness of different medical practitioner's rural areas of Davangere.

Majority of the respondents knew that there exists a relationship between oral health and general health, yet greater part related with consumption of more sweets. Their knowledge was restricted and was unaware of various harmful role of gum/ periodontal disease plays in many serious and life threatening disease. (Syrjanen *et al.*, 1989; Umino and Nagao 1993; Madianos *et al.*, 2002; Moreu *et al.*, 2005; Piia Ha'ma' la' inen *et al.*, 2005; Davey and Rogers 1984; Patil *et al.*, 2013) Less than half the practitioners knew that cavity causing bacteria can be transmitted from the mother (Berkowitz and Jones 1985; American academy of Paediatrics policy statement 2003) which is also cited in the pediatric literature. (Gur and Majra 2009) This highlights that more comprehensive knowledge need to be provided to the medical practitioners specially OBG and pediatricians so that the knowledge of oral health is transmitted to the mothers. Most participants stated that a major barrier to the diagnosis of oral pre-cancer and early cancer is a lack of knowledge regarding early signs and symptoms. (Carter and Ogden 2007; Macpherson *et al.*, 2003; Douglas E Morse 2011) 98% health professionals in the present study said that regular visit to dentist was necessary, suggesting favorable attitudes. This result was higher than the previously reported studies by Sharda and Shetty (?) Mohammad *et al.* (2012)

The dental knowledge, attitude and awareness were satisfactory among young medical practitioners. This could be because the MBBS curriculum in India includes a dental posting in which they have an exposure to dental health aspects which improves

their awareness, knowledge and attitude towards dentistry. Medical practitioners must play an active role in oral health promotion. Proper knowledge of oral diseases is crucial in medical practice in early detection of oral diseases by physicians could improve the oral health status of the population. A number of continuing medical education programmes Preventive dentistry articles to be published in medical journals. Information about dental caries can be given in the form of brochures, posters, etc., required to improve their knowledge, attitude and awareness about various dental diseases. Physicians could play a pivotal role in public oral health, Physicians need to get more involved in oral health promotion. Moreover, oral health education should be included in the curriculum of future medical students Hence if medical practitioners identify oral disease at an initial stage it would prove helpful in improving the quality of life of the population

Limitation of the study

Though the questions covered a array of important areas, inquisitive study is required.

REFERENCES

- American academy of Paediatrics policy statement. *Pediatrics*, 2003; 111:1113-5
- Balwant Rai 2007. Systemic Effect of Oral Disease. *The Internet Journal of Family Practice*, Volume 5 Number 1
- Berkowitz RJ, Jones P. 1985. Mouth-to-mouth transmission of the bacterium *Streptococcus mutans* between mother and child. *Arch. Oral Biol.*, 30:377-9
- Carter LM, Ogden GR. 2007. Oral cancer awareness of general medical and general dental practitioners. *Br. Dent. J.*, 2007 Sep 8; 203(5):E10; Discussion 248-9. Epub Jul 13
- Davey AL, Rogers AH. 1984. Multiple types of the bacterium *Streptococcus mutans* in the human mouth and their intra-family transmission. *Arch. Oral Biol.*, 29:453-60
- Douglas E Morse *et al.* 2011. Perspectives of San Juan healthcare practitioners on the detection deficit in oral premalignant and early cancers in Puerto Rico: a qualitative research study; *BMC Public Health*, 11:391.
- Drum Ann, Chen DW, Duffy Rosemary E. 1988. Filling the Gap: Equity and Access to Oral Health Services for Minorities and the Underserved. *J. Fam. Med.*, 30(3): 206–09
- Gur A, Majra JP. 2009. Knowledge, Attitude and Practices Regarding the Systemic Effects of Oral Diseases among the Medical Practitioners. *The Internet Journal of Dental Science*, 6(2).
- Jorge Hernn Ramirez and Roger Arce 2010. Adolfo Contreras, Why Must Physicians Know about Oral Diseases? Teaching and Learning in Medicine, 22(2): 148-55.
- Macpherson LM, McCann MF, Gibson J, Binnie VI, Stephen KW. 2003. The role of primary healthcare professionals in oral cancer prevention and detection. *Br. Dent. J. Sep.*, 13; 195(5):277-81.
- Madianos PN, Bobetsis GA, Kinane DF. 2002. Is periodontitis associated with an increased risk factor of coronary heart disease and preterm and/or low birth weight births? *Journal of Clinical Periodontology*, 29 : 22-36.

- Mohammad A B, Mohammed SA, and Aleemullah M. 2012. Oral health knowledge, attitude and practices among health professionals in King Fahad Medical City, Riyadh *Dent. Res. J.*, (Isfahan). Jul-Aug; 9(4): 386–392.
- Moreu G, T' ellez L, Gonza'lez-Jaranay M. 2005. Relationship between maternal periodontal disease and low-birth-weight pre-term infants. *J. Clin. Periodontol.*, 32 : 622-27.
- National oral health survey: *Dental Council of India*, 2004.
- Ostberg AL, Halling A, Lindblad U. 1999. Gender differences in knowledge, attitude, behavior and perceived oral health among adolescents. *Acta. Odontol. Scand.*, 57:231–6
- Patil S *et al.* 2003. Oral Health Coalition: Knowledge, Attitude, Practice Behaviours among Gynaecologists and Dental Practitioners: *Journal of International Oral Health*. Jan-Feb; 5(1):8-15
- Piia Ha"ma" la" inen, Jukka H. Meurman, Markku Kauppinen, Marja Keskinen 2005. Oral infections as predictors of mortality: *Gerodontology* 22 : 151-5.
- Radha G, Shaik Hyder Ali KH, Pushpanjali K. 2008. Knowledge and attitude and practice of oral health among nursing staff and nursing students of Bangalore city. *Journal of Indian Association of Public Health Dentistry*, (11):17-21.
- Ramirez JH, Arce R, Contreras A. 2010. Why must physicians know about oral diseases? *Teach Learn Med*, 22:148–55.
- Sharda AJ, Shetty S. A comparative study of oral health knowledge, attitude and behaviour of non-medical, Para-medical and medical students in Udaipur city, Rajasthan
- Syrjanen J, Peltola J, Valtonen V, Iivanainen M. 1989. Dental infections in association with cerebral infarction in young and middle-aged men. *Journal of Internal Medicine*, 225:179-84.
- Umino M, Nagao M. 1993. Systemic diseases in elderly dental patients. *International Dental Journal*, 43 : 213-18.
