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The Knowledge of Dental Caries amongst Medical Practitioners in Benin City

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ABSTRACT

Objective: Dentists are few and dental awareness in most developing countries is poor. Medical practitioners being the first point of call for most patients with oral complaints; are in the vantage position to identify oral diseases and give prompt referral. The objective of this study was to assess the knowledge of dental caries amongst medical practitioners in Benin City, Edo State.

Methods: The study was a cross-sectional, self-administered questionnaire survey of general medical practitioners in three government hospitals in Benin City. The questionnaire assessed the knowledge of the causes, risk factors, clinical features and prevention of dental caries.

Results: Eighty questionnaires were filled and returned. Nearly all the respondents 97.5% have been consulted by patients with oral complaints; 67.5% carried out oral examinations while 97.5% have referred patients with oral complaints. 20% of the respondents choose tooth surface, 83.8% frequency of sugar consumption and 51.3% plaque as causes of dental caries. 52.5% of the respondents selected reduced saliva; 58.8% Diabetes mellitus; 28.8% radiotherapy while 26.3% selected medications as risk factors in dental caries. 95.0% selected use of fluoride toothpaste; 72.5% avoiding sugary foods/drinks; and 83.8% regular dental checkups as means of preventing dental caries. Only 9.7% of respondents had a good knowledge of dental caries. The knowledge of dental caries amongst medical practitioners was poor.

Conclusion: Oral health should be inclusive in the curricula of both undergraduate medical students and resident doctors especially those in general medical practices, family medicine and the accident and emergency department.

Keywords: Dental caries, knowledge, medical practitioners

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INTRODUCTION

Oral diseases have been called an "overlooked epidemic" by the U.S. surgeon general in his May 2000 report.¹ Dental caries and periodontal diseases are the major oral diseases, while others include malocclusion, traumatized anterior teeth, dental fluorosis, and oral tumours.² Dental caries may be defined as a post-eruptive pathological process of external origin, involving the softening of the hard dental tissues and proceeding to cavity formation.³ It is a transmissible disease; that can be acquired by a child from the mother.^{4,5} If left untreated, the disease may lead to pain, tooth loss, infection, and in severe cases, death.⁶ A medical practitioner treats acute and chronic illnesses and provides preventive care and health education for patients. They have particular skills

in treating people with multiple health issues and comorbidities. In the Nigerian health care setting, medical practitioners may be regarded as primary care givers because they are the first port of call and see to the basic health needs of patients.

There was the need to assess knowledge of dental caries among medical practitioners in Benin City. Hence, the objective of this study was to assess the knowledge of dental caries amongst medical practitioners in Benin City, Edo State.

MATERIALS AND METHODS

Ethical consideration

The Ethics and Research Committee of Edo State Ministry of Health and the University of Benin Teaching Hospital gave approval for this study. Only the medical practitioners who gave informed consent were included.

Study design/setting

This cross-sectional study was conducted among medical practitioners in the selected hospitals. . The Central Hospital, Stella Obasanjo Women and Children Hospital and University of Benin Teaching Hospital were selected for the study because they are the public hospitals found in the three local government areas that make up Benin City.

Data collection tool/procedure

A structured, pre-tested multi-choice questionnaire was the data collection tool. The questionnaire was made up of two sections. The first section was related to demographic data (age, gender, designation, years of practice and place of practice). The second section assessed the attitude towards oral health amongst the (history of dental visit, reason for visit, treatment done, last dental visit, present oral complaint and plans to address it). The questionnaires were administered to 100 medical practitioners. The

respondents were informed that they could give more than one answer in the second section.

Statistical analysis

The data collected were recorded on a spread sheet designed for this study. The level of knowledge was summarized using a modified KAP level,⁷ and response was graded from 0-40. The response was graded from 0-40. The respondents scoring 0-14, 15-28 & 29-40 marks were graded as poor, fair and good knowledge of dental caries respectively. The data was analyzed using SPSS version 17.0 software. The results were expressed in terms of percentage and proportions.

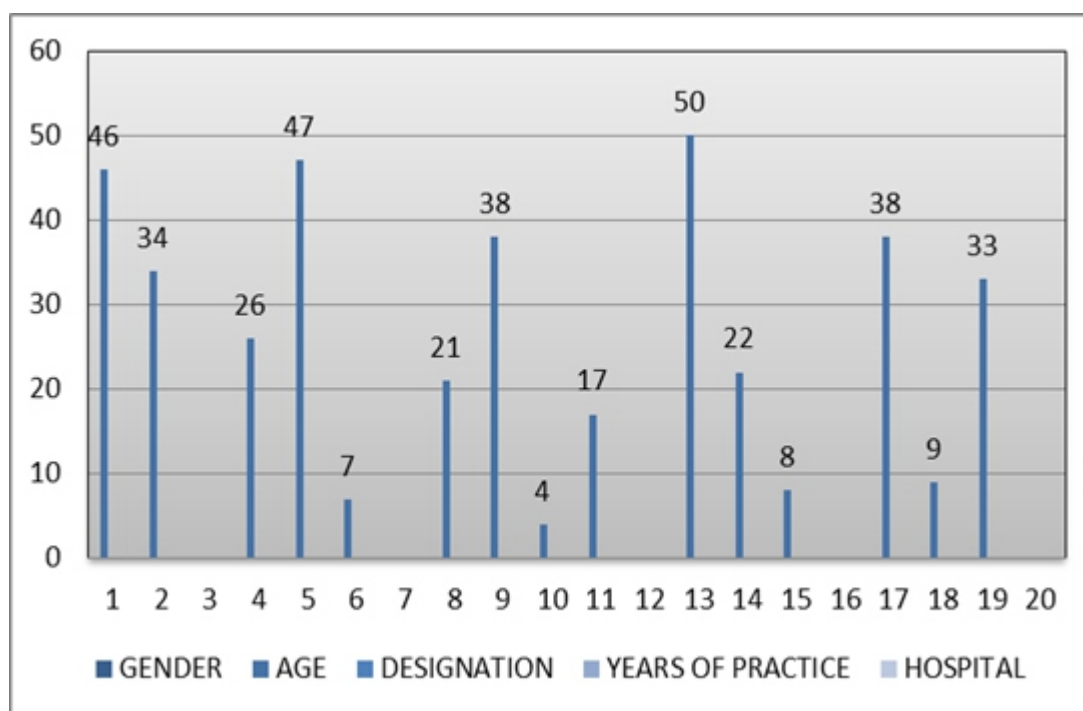


Figure 1: Demographic characteristics of the participants

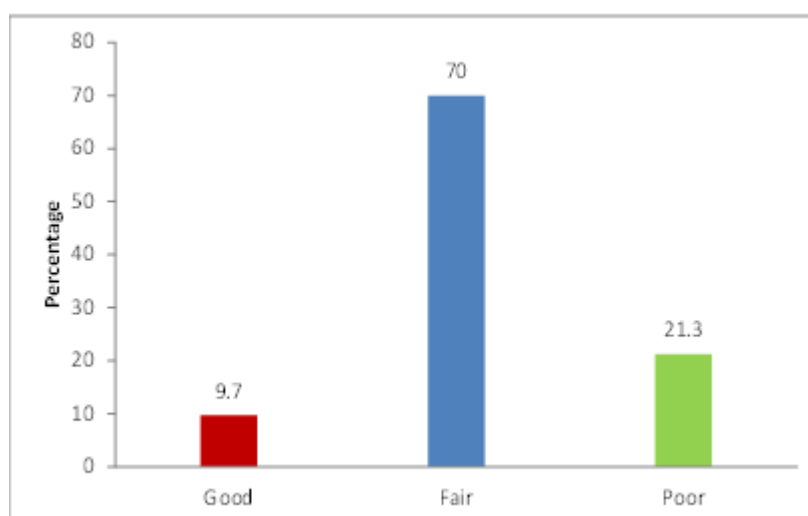


Figure 2: Overall knowledge of dental caries among medical practitioners

Table 1: Knowledge of causative factor, risk factors, clinical feature and preventive measures in relation to dental caries among medical practitioners

CAUSATIVE FACTORS IN DENTAL CARIES	% FREQUENCY
Tooth surface	20.0
Frequent sugar intake	83.8
Plaque	51.3
Overzealous toothbrushing	8.8
Inadequate calcium	42.5
Weak teeth	28.8
Don't know	2.5
RISK FACTORS IN DENTAL CARIES	% FREQUENCY
Reduced saliva	52.5
Diabetes mellitus	58.8
Radiotherapy	28.8
Medications	26.3
Leukaemia	10.0
Stress	8.8
Don't know	10.0
CLINICAL FEATURES OF DENTAL CARIES	% FREQUENCY
Brown spot	35.0
Pain	67.5
Hole	66.3
Inflamed gum	43.8
Ulcers	17.5
Exposed roots	22.5
Don't know	3.8
PREVENTION OF DENTAL CARIES	% FREQUENCY
Fluoride toothpaste	95.0
Avoiding sugary foods/drinks	72.5
Regular dental check-ups	83.8
Non- fluoride toothpaste	2.5
Calcium tablets	20.0
Don't know	3.8

RESULTS

A total 80 respondents answered and returned them giving 80.0% response rate. The majority of the respondents were males, 30-39years, medical officers and had practiced for less than 5years (Figure 1). About one-tenth (9.7%) of the respondents had good overall knowledge of dental caries among medical practitioners (Figure 2).

In this study, 51.3% of the respondents chose frequency of sugar consumption as aetiology of dental caries. Reduced saliva (52.5%) and diabetes mellitus (58.8%) were the main risk factors to dental caries indicated by the respondents. Only 35% of the respondents that reported brown chalky spot as clinical feature of dental caries. The stated prevention of dental caries among the respondents are use of fluoride toothpaste (95.0%), avoiding sugary foods/drinks (72.5%), regular dental checkups (83.8%) and calcium tablets (20%) (Table 1).

DISCUSSION

The dental awareness among the populace in Nigeria is still very poor.⁷ Although 51.3% of the respondents chose plaque as aetiology of dental caries which is good knowledge but there was still an erroneous view as 42.5% and 28.8% of the respondents stated that dental caries could be caused by inadequate calcium and weak teeth respectively. Based on their erroneous information on the role of calcium in dental caries formation, 20% of the respondents felt calcium tablets could be used for prevention (Table 1). This is in line with a similar study done in Lagos, Nigeria⁸ where patients had prescription of calcium tablets for treatment and prevention of dental caries.

Reasonable proportion of the respondents were aware of risk factors to dental caries. Thus, there is a need for medical practitioner to be empowered to be able to assess the risk of developing dental caries in their patients.

A good number of medical practitioners identified the clinical features of dental caries with only 35% selecting brown chalky spot. This is worrisome because this is one of the early signs of dental caries. Medical practitioners should be made to know the clinical features of this common oral diseases as this will give them confidence to carry out oral examination, identify clinical features and refer appropriately.

In this era, when disease management is tending towards prevention, it is important for medical practitioners to know the means of preventing dental caries. In this study, 95.0% selected use of fluoride toothpaste; 72.5% avoiding sugary foods/drinks; and 83.8% regular dental checkups which is good. However, this study revealed that only 9.7% of the respondents reported good overall knowledge of dental caries. Medical practitioners can have a positive influence on oral health outcomes in vulnerable populations through oral screening examinations, preventive interventions, patient counseling, and dental referral and collaboration. The poor level of knowledge of dental caries depicted in this study may result in prolongation of time before patients come in contact with the dentist thereby denying them the opportunity of reaping the benefits of optimal, effective and timely oral care. These disparities and health effects could be alleviated through increased training and participation in oral disease prevention.

CONCLUSION

Consequently, there is need for better education in the diagnosis and prevention of dental caries among medical practitioners in Benin City. Training to familiarize Medical practitioners with the more common and important oral diseases may enhance their diagnostic abilities and pattern of referral.

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