

**TITLE: AWARENESS OF ORAL MEDICINE SPECIALTY AND MANAGEMENT
APPROACH OF ORAL MEDICINE CASES SEEN BY MEDICAL PRACTITIONERS IN
A TERTIARY HEALTH INSTITUTION IN SOUTH WEST OF NIGERIA.**

Running title: Awareness of Oral Medicine Specialty

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ABSTRACT:

BACKGROUND: Oral Medicine, an aspect of Dentistry that deals with oral mucosal diseases and oro-facial manifestation of systemic diseases, is an evolving specialty in developing parts of the world.

OBJECTIVES: To determine the awareness of Oral Medicine specialty among medical practitioners, and to assess the management methods of Oral Medicine cases seen by them.

METHODS: A cross-sectional survey was conducted using a questionnaire as a tool. The questionnaire was reproduced, pretested, modified and thereafter, distributed to medical doctors: (house officers, residents and consultants) during break time at their various lounges. Emails and telephone conversations were also used. The questionnaire captured biodata; what is Oral Medicine specialty, the cases seen and the condition mostly diagnosed by the medical personnel; if the patients were treated, referred, and to whom? Statistical analysis was done using SPSS window version 25. Quantitative variables were obtained. P-value was set as ≤ 0.05

RESULT: Four hundred and fifty-two participated in the study. There were 249 males and 203 females, with M: F ratio of 1.2: 1. The mean age was 30.11 ± 6.6 . Three hundred and nine (68.4%) of the participants have heard of the specialty. One hundred and eighty-seven (60.5%) have seen cases with oral lesions, among which 45 (24.1%), did not refer. Halitosis was the condition mostly diagnosed 106(23.5%). The clinic that they mostly refer the cases to was Oral Medicine 107(5.4%). There was an association between awareness of the specialty and age, with the awareness exhibited mostly among the older age group ($P=0.032$). Similarly, there was also an association between job cadre and the specialty, with the consultant most aware ($P=0.013$).

CONCLUSION: Most of them were aware of Oral Medicine specialty with the awareness displayed more by the consultants. The majority referred oral medicine cases to oral medicine specialists, but a significant proportion still referred to other specialties. The delay can affect the quality of life of the patient.

The study has, therefore, emphasized the need for an interdisciplinary relationship between Oral Medicine specialists and the medical personnel.

KEYWORDS: Oral medicine specialty, medical practitioners, awareness, cases.

INTRODUCTION:

Knowledge is dynamic and this has resulted in many specializations evolving¹ including Oral Medicine. The health professionals form an essential part of the health care team in patient management,² and the medical and dental practitioners are an integral part of the healthcare team. Regardless of this relationship, medical practitioners still exhibit considerable inadequacy in basic knowledge of oral health.

Oral Medicine is an aspect of dentistry that deals with oral mucosal diseases and other oral and maxillofacial manifestation of systemic diseases.³ Such diseases include ulcerative inflammatory conditions (example Aphthous ulcer), auto-immune diseases (Sjogren's syndrome, Systemic lupus erythematosus, etc.), vesiculobullous lesions (Lichen planus, Pemphigus, Pemphigoid, etc.), neurological conditions (Trigeminal neuralgia, Glossopharyngeal neuralgia and Facial nerve palsy, etc.). Others include salivary gland lesions (example Sialadenitis),

Temporomandibular joint disorders [Temporomandibular joint pain (TMJ) dysfunction syndrome, TMJ arthritis etc.), viral infections such as herpes viridae infections, halitosis, medical emergencies, etc. It is described as a developing specialty and also regarded as an evolving specialty in USA.⁴ In the majority of countries surveyed, 33 out of 37 (89%) also confirmed this.

⁵ It is a unit that came into existence after Oral and maxillofacial Surgery, Restorative, Periodontology, etc.^{6,4} and there is an interplay among these specialties. It is also inherently related to other aspects of Medicine and Surgery, such as Dermatology, Rheumatology, Otorhinolaryngology, Paediatrics and Behavioural Medicine. Lack of distinction between Oral Medicine specialist and other dental practitioners lead to delays, which can affect the quality of life of a patient and this has been demonstrated by Patil et al.⁷ Studies by Bokkssam et al¹ and Alrasdan et al⁸ have confirmed among medical practitioners, the low knowledge of who an oral Medicine specialist is and in basic oral diseases. It is worthwhile to assess if the same applies to our environment.

Therefore, the study sets out to determine the awareness of Oral Medicine specialty, and to assess their management approach in LASUTH.

MATERIALS AND METHODS:

Study Design:

It was a descriptive cross-sectional study.

Study Setting/Location:

The study was conducted among the medical practitioners at Lagos State University Teaching Hospital (LASUTH), Ikeja for 3 months. LASUTH is a tertiary institution situated in the capital of Lagos State, Southwest Nigeria and provides care for the population of Lagos and its environs (Ogun, Oyo, Osun, etc.)

Sample size:

The sample size was calculated using Fischer's formula for cross-sectional study. Using a prevalence of 50% at standard normal deviate of 1.95, a minimum sample of 384 was estimated. Provision for attrition of 20%, set the sample size to 461. Convenience sampling, a form of non-probability sampling was used for participant's selection. However, to increase the power of the study, all consenting participants who returned completely filled questionnaires were recruited for the study, given a response rate of 98%.

Sample size formula:

$$n = \frac{z^2 pq}{d^2}$$

Where:

n = the desired sample size

z = the standard normal deviate, set at 1.96 which corresponds to the 95% confidence level (or 5% significant level)

p = the proportion of the target population estimated to have a particular characteristic from previous study. 50% (i.e. 0.50) is used

q = 1.0 – p

d = set at 5% (0.05)

$$n = \frac{(1.96)^2 (0.5)(0.5)}{0.05^2}$$

$$n = \frac{(1.96)^2 (0.5)(0.5)}{0.05^2}$$

$$n = 384.16$$

20% attrition gives a total of 461

Inclusion and exclusion criteria: Medical doctors who are permanent staff of LASUTH and who gave their consent were included. The exclusion criteria included staff with temporary appointments and who didn't give their consent.

Data Collection:

A 21-item interviewer structured questionnaire with closed and opened ended questions was used as a data collection tool. The first section obtained the socio-demographic data (age, sex, marital status, tribe, religion, job status, specialty, school of graduation) while the second part obtained information on who an Oral Medicine specialist is, knowledge of oral medicine cases and their management protocol. The questionnaire was reproduced and pilot tested among doctors in a specified general hospital and was modified where necessary. Kappa value was 0.892.

Data analysis: The Analysis was carried out using IBM SPSS (statistical package for social sciences) version 25 software. Categorical data was presented using frequency and percentage, while continuous variable was presented with mean and standard deviation. Bivariate analysis was carried out using Pearson chi-square while Fischer's exact was used when frequency in row or column was <5. The level of significance was set at $P < 0.05$.

RESULTS:

Table I: shows the socio-demographic details of the participants. Four hundred and fifty-two medical doctors participated in the study. There were 249 males and 203 females, with a male to female ratio of 1.2:1. The age spanned from 21 to 66 years with a mean age of 30.11 ± 6.6 . The house officers recorded the highest participants 244(54.2%).

Figure I: Three hundred and nine (68.4%) were aware of Oral Medicine specialty.

Table I1: Awareness was more in age 36-40years, (80.6%) and >40years, (77.5%), while the least was 21-25 years, (59.6%) and was statistically significant ($p=0.032$).

No statistically significant difference in gender ($p=0.913$).

Among the cadre, the consultants were mostly aware 28 (84.8%), compared to the house officers, 152(62.3%) and this was statistically significant, $p=0.013$

Table III: Concerning oral lesions seen, age 36-40 years have seen oral medicine cases the most, while the least was age 21-25 years, and this was statistically significant. $p=0.001$.

The consultants have seen more oral lesions 17(51.5%) than other cadres and this was also statistically significant ($p=0.018$).

Table 1V: One hundred and eighty-seven (60.5%) have seen cases with oral lesions, and oral ulcers was the most frequently observed clinical sign 122(65.2%). Removable white patches was the least 25(13.4%)

Table V: Halitosis was the condition mostly diagnosed 106 (23.5%). Pemphigoid, a vesiculobullous lesion was the least, 9 (2.0%). Other conditions seen but not commonly diagnosed were Pemphigus 13(2.9%) and Erythroplakia, 17 (3.8%)

Table VI: Only one hundred and forty- two referred oral medicine cases (75.9%). Of the 142, only 107(75.4%) referred to Oral Medicine clinic, while 35 referred to other dental specialties. Forty-five (24.2%) did not refer at all.

Table VII: Pediatricians 21 (77.8%), Surgeons 42(76.4%) and Physicians (Internal Medicine) 71 (74%) demonstrated the highest level of awareness. The least was seen with Family physicians.

DISCUSSION: This is a survey focusing on the awareness of Oral Medicine specialty amongst medical colleagues in different cadres in the same institution. It is not uncommon for most patients to go to the physicians for their dental complaints; it is therefore, becoming necessary for medical practitioners to have a basic understanding of oral lesions, to provide appropriate and immediate preliminary treatment and inculcate the habit of proper referral practice.⁹ The dental and medical practitioners form an essential part of the healthcare system¹ and a strong interrelationship is expected to enhance holistic patient management. An Oral Medicine specialist may even be the first to diagnose a systemic illness with oral manifestation. Oral Medicine is an interphase between medicine and dentistry, but the existence of a strong relationship in the management of the patients (the receiver) is still questionable. All Oral Medicine conditions need appropriate treatment to improve the quality of life of the patient and prevent associated morbidity and sometimes mortality.

In the present study, three hundred and nine (68.4%) participants were aware of Oral Medicine specialty, and this is similar to the study by Subramanian, in which 71% were aware of Oral Medicine specialty.¹⁰ If there has been an inter-relationship, this percentage would have been more.

Concerning the age, the awareness was more in the older age practitioners, 36-40years (80.6%) and > 40years (77.5%) than in the younger age groups and was statistically significant. This shows an association between awareness of an Oral Medicine specialist and age. This is similar

to the study by Alrashdan et al in which the older age group, > 45years were more aware than the younger age group ⁸.

The consultants displayed the highest level of awareness, (84.8%), while the house officers displayed the least level of awareness (62.3%). This is also statistically significant and could be associated with their clinical experience. This is also similar to the study by Alrashdan et al ⁸.

Age group 36-40 years (64.5%)} have seen the highest number of Oral Medicine cases than in other age groups and was statistically significant; this age group is most likely to be the consultants and the senior registrars.

The consultants 17(51.5%) have seen more cases, while the group with the least were the house officers 85(34.8%) and was statistically significant. This is not surprising as the consultants are accountable for all patients and the lower cadres present all cases to them.

Many oral lesions such as Aphthous stomatitis, Pemphigus, Pemphigoid, Lichen planus, Systemic lupus erythematosus, etc., present with oral ulcerations. With reference to table V, they were the highest referred; but when specific diagnoses were made, halitosis was the highest. This is not surprising as bad breath can easily be perceived, diagnosed and referred.

Of the 187 that have seen Oral medicine cases, 45 did not refer, and of the 142 that referred, 35 referred the patients to other dental specialties which is in tandem with the study by Patil et al. ⁷ This could lead to delay in treatment before the patient eventually receives the right treatment, which may lead to an undesirable outcome (complications, intra-oral scarring. etc.). The clinic that they mostly refer the cases to was Oral Medicine 107(75.4%), though appreciable, but could be better; emphasizing the need to train the medical colleagues the basic oral lesions. The study by Sardella et al even demonstrated low referral (45%) to Oral Medicine clinic. ¹¹

Relating to the specialties, the physicians (internal medicine) demonstrated the highest level of awareness, 71 (74%) and not surprising as they have a close relationship with Oral Medicine specialists, but surprising is the Family physicians who were the least in the study 8(47.1%). This finding is in contrast with Alrashdan et al's study.⁸

This study has emphasized the need for medical personnel to acquire basic knowledge in oral health and disease state, which will improve management and prompt referral, invariably will enhance the overall health care delivery to patients.

CONCLUSION: Most of the participants were aware of the Oral Medicine specialty with the awareness displayed more by the consultants. The majority referred oral medicine cases to oral medicine specialists, but a significant proportion still referred to other specialties and this delay can affect the quality of life of patients.

The study has, therefore, emphasized the need for an interdisciplinary relationship between Oral Medicine specialists and medical personnel in LASUTH so as to enhance patient care.

RECOMMENDATION: Education and training of the medical colleagues and their trainees is desirable. Undergraduate and postgraduate postings to Oral Medicine clinic should be encouraged especially from Dermatology, Rheumatology, Family Medicine, etc. Combined and regular CME programmes, grand rounds, journal reviews, seminars, conferences will promote dissemination of knowledge amongst the different fields/ specialties. This will help in curtailing misdiagnosis, wrong referrals and treatments which may have undesirable effects on the patient.

CONFLICTS OF INTEREST: The authors declare no conflicts of interest.

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