

## Knowledge of Medical House Officers about Dental Specialties

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### ABSTRACT

**BACKGROUND:** Some patients with oral diseases present initially to a general medical practitioner who is expected to refer the patients to the appropriate dental specialist for management. Thus they are expected to have a good knowledge of the different specialties in dentistry. This study was designed to determine the knowledge of medical house officers about the specialties in dentistry and how this will influence their ability to make appropriate referral.

**METHODS:** Two hundred structured questionnaires were distributed to medical house officers in six teaching hospitals in Nigeria. The questionnaire items include: age, sex, university attended, extent of dental education received and the knowledge of oral diseases. Responses were scored and transferred to a micro-computer and analyzed with SPSS.

**RESULTS:** Response rate was 146 (73.0%), 83 respondents (56.8%) had exposure to dentistry, while 64 (43.2%) did not. Majority of the respondents scored below 39.0%. When the responses were analyzed, the best performance was in the identification of oral diseases managed by the oral and maxillofacial surgeon (31.7%). The worst performance was recorded in the area of preventive dentistry (9.0%). The proportion of those who scored 50% and above was more among those who were exposed to dentistry.

**CONCLUSION:** The knowledge of medical house officer about oral diseases and the specialties that manage such diseases was poor. Exposure to dental education appears to have some benefit.

**KEYWORDS:** Knowledge, Medical house officers, Dental specialties.

management<sup>2</sup>. This referral of patients from primary care to a medical or dental specialist and back to the referring doctor has been described as an important activity in any health care system<sup>3</sup>. For this important process to be efficient, it must carry relevant clinical information<sup>4</sup> and must be directed to the right person so as to minimize time wasting.

The art of good medical writing is a desirable quality of a good medical practitioner<sup>5,6</sup>. However, most studies<sup>4,7,8</sup> have revealed inadequate relevant information in conventional referral letters with consequent negative effect on prompt and efficient treatment<sup>7,9</sup>. Physicians making referrals have been said to switch hospitals and specialists because of poor communication<sup>10</sup>. The ability to write on any subject will depend on the amount of knowledge an individual has about that subject; since knowledge has been defined as the information, skills and understanding that you have gained through learning or experience<sup>11</sup>. It has also been reported that there is a positive association between training and confidence and between confidence and ability to perform recommended practices<sup>12</sup>. Thus, it is important that physicians have a sound knowledge of dentistry; not only to refer patient appropriately, but also because of the following reasons: some oral diseases are associated with multiple systemic conditions of medical interest, a number of systemic diseases have oral manifestations and many drugs are associated with oral adverse drug effects<sup>13</sup>. Therefore, physicians could play a pivotal role in oral public health through early detection of oral diseases, timely and appropriate intervention when necessary.

Most patients in our environment with oro-facial diseases often present first to a general medical practitioner particularly if the tooth is not directly involved. Our experience showed that potentially lethal oral diseases like oral carcinomas are often treated lightly by physicians and are therefore not often promptly referred for expert management and when such referral eventually arrives, it is often misdirected. Dental students in Nigeria are sufficiently exposed to medicine in the course of their professional training whereas the converse is the case for the medical students who had little or no exposure to dentistry during their training period.

This study was, therefore, designed to assess the knowledge of fresh medical graduates (house officers)

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### INTRODUCTION

The field of dentistry is a dynamic one and over the years, there have been great discoveries in different areas, increasing the body of knowledge available. This has necessitated the need for specialization in order to acquire and utilize this knowledge in patients' management<sup>1</sup>. Efficient patient management will depend on prompt and immediate attention; especially in some life threatening conditions. Traditionally, most patients with oral diseases present initially to a general medical practitioner who is expected to refer the patients to the appropriate dental specialist for

about the different specialties in dentistry and to determine whether exposure to dental surgery in the course of training affect their ability to make appropriate dental referral.

### MATERIALS AND METHODS

A cross-sectional study was conducted using a structured questionnaire that self-administered to house officers in six teaching hospitals in Nigeria. The hospitals are University College Hospital (UCH), Ibadan, Lagos University Teaching Hospital (LUTH) Idi-Araba, Lagos both from South west Nigeria, University of Port Harcourt Teaching Hospital (UPTH), Port Harcourt from South south Nigeria, University of Abuja Teaching Hospital (UATH), Gwagwalada, Abuja, Federal Capital Territory and University of Nigeria Teaching Hospital (UNTH), Enugu from South east, Nigeria. The questionnaires were randomly distributed to the medical interns in these centres. Those who failed to return their questionnaires after several reminders were excluded.

The socio-demographic data of the participants including age, sex, marital status and university attended were recorded. The questionnaire was divided into two parts, sections A and B. Section A sought to know whether the participant had any form of dental education and if yes, to what extent, while in section B, respondents were requested to refer each of the twenty listed orofacial conditions to the appropriate dental specialist that would manage it (see appendix I for the conditions). The

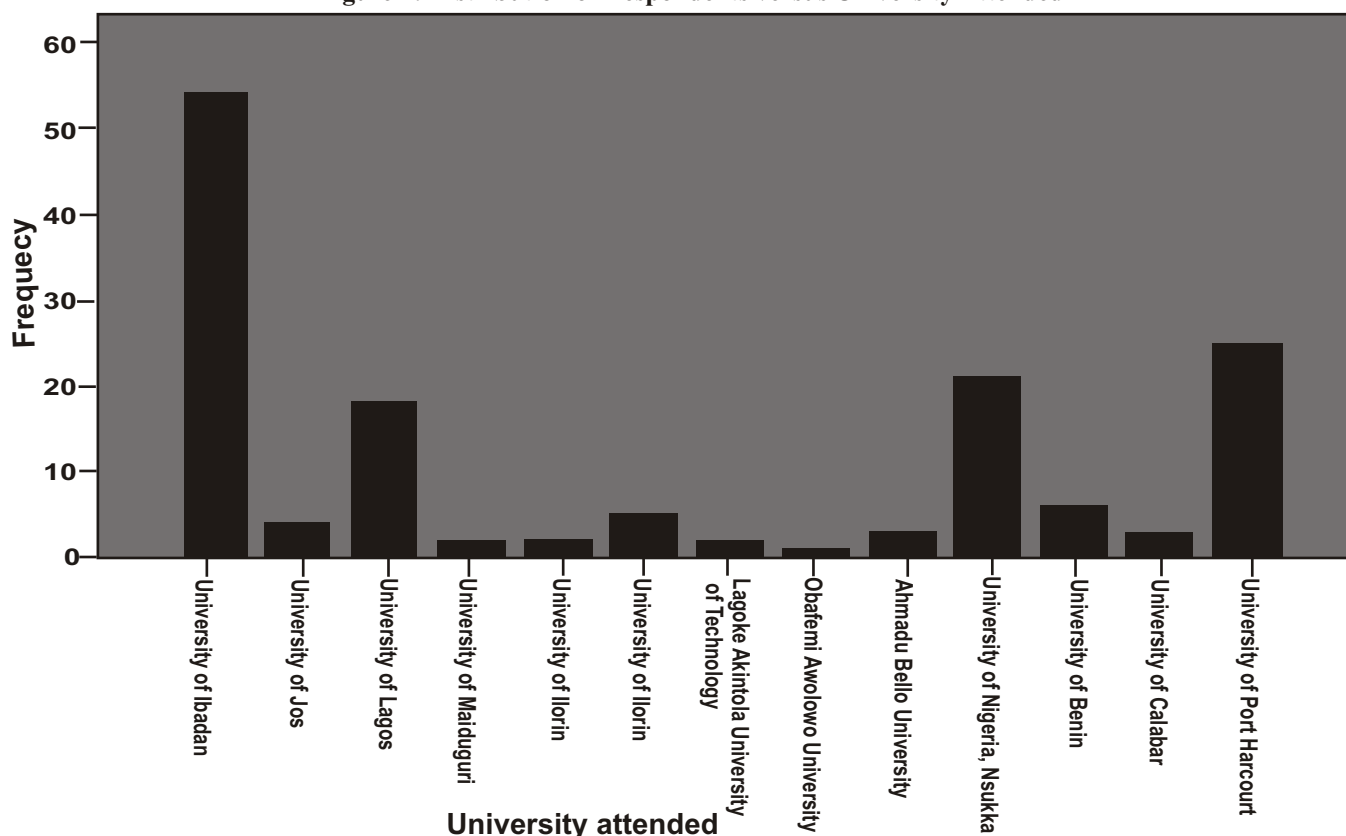
total score of each respondent with respect to the five basic Departments of Dentistry (Oral and Maxillofacial surgery, Oral Pathology, Child Dental Health, Restorative Dentistry and Preventive Dentistry) were determined and recorded. The sample size was determined by convenience. Anonymity and confidentiality of the respondents were maintained.

The data were entered into a micro computer and analyzed using Statistical Package for Social Statistics version 17 (SPSS Inc, Chicago Illinois, USA). Summary statistics (frequency, percentage, mean and standard deviation) were generated. Cross tabulations were also done and statistical differences between groups were assessed. Student t-test was done to compare means between groups. An observation is considered statistically significant if the P value <0.05.

### RESULT

A total of 200 questionnaires were distributed, out of which 146 were returned, giving a response rate of 73.0%. Seventy nine (54.1%) of the respondents were males while 67 (45.9%) were females. Majority 132 (90.4%) of the respondents were single, 11 (2.5%) were married while the remaining 3 (2.1%) were unspecified. As regards the university attended by the respondent, the highest number was from University of Ibadan with 54 (36.9%) respondents, this is followed by University of Port Harcourt with 25 (17.1%), while the least number was from Obafemi Awolowo University with 1 (0.7%) respondent (Fig 1).

Figure 1: Distribution of Respondents versus University Attended



Amongst the respondents, 83 (56.8%) had some form of dental training, while 63 (43.2%) had none. Of those that had some form of training, the forms of training were lectures only 66 (79.5%), clinical 3 (3.6%) and both clinical and lectures 14 (16.9%). The training duration varied from one week 44 (53.0%), followed by less than one week 24 (28.9%), 2-4 days 12 (14.5%) and one day 3 (3.6%).

Figure 2 showed the percentage score of the respondents with respect to the five departments of dentistry, with majority of the respondents scoring below 39.0%. The best performance was in the knowledge of oral diseases

managed by Oral and Maxillofacial Surgery specialty with an average mean score of 31.7%; this was followed by Child Dental Health with a value of 15.5% while the least score of 9.0% was recorded for Preventive Dentistry (Fig 3).

Table 1 showed the relationship between the scores of the respondents and having a form of training in dentistry. It was observed that the proportion of those that had a score of 50.0% and above was more among those that had a form of training in dentistry during their medical training. This observation was statistically significant (P values < 0.05).

Figure 2: Distribution of the percentage score of the respondents in relation to dental specialties.

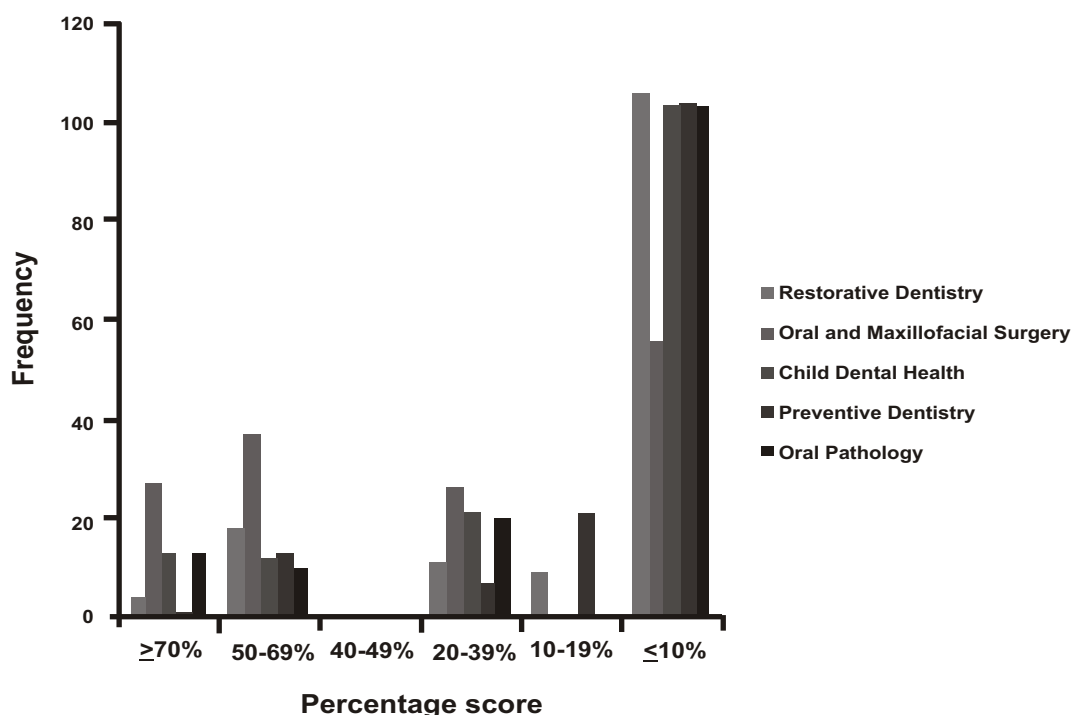


Figure 3: Percentage mean score of the respondents with respect to dental specialties.

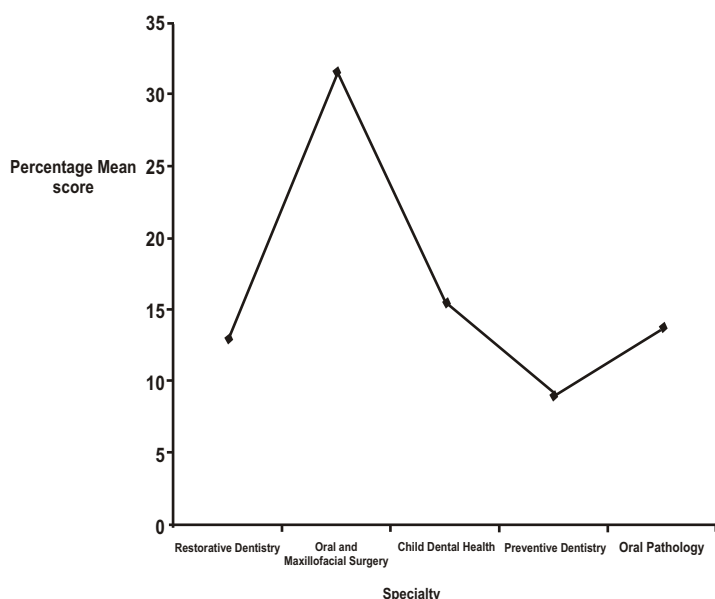


Table 1: Relationship between training in Dentistry and scores of respondents

Departments	Training in Dentistry	Percentage Score		P value
		<50%	=50%	
Oral and Maxillofacial Surgery	Yes	31	51	0.000
	No	50	13	
Restorative Dentistry	Yes	60	21	0.002
	No	55	6	
Oral Pathology	Yes	62	19	0.001
	No	56	4	
Preventive Dentistry	Yes	69	13	0.002
	No	57	6	
Child Dental Health	Yes	61	20	0.006
	No	58	5	

## DISCUSSION

Even though more than half of the respondents had a form of training in dentistry, their knowledge of the profession and its specialties was very low. Only very few interns were able to indicate the appropriate dental specialty where each of the outlined oro-facial diseases would be managed. This is similar to what was reported by Subhashraj et al<sup>14</sup> who compared the knowledge of dental, medical and paramedical professionals about a specialty in dentistry and discovered that the level of awareness of the dental specialty by both medical and paramedical professionals was very low compare to the dental professional.

The reason for the poor performance of the medical interns in this study may be connected with the duration of their dental exposure which in most cases lasted for only one week. This period may be too short to impact a meaningful knowledge of the profession on the trainees; hence, their inability to relate oral diseases to the relevant dental specialties. Because of the nature of dental practice, it may be difficult to sufficiently engage medical students in the area of dentistry; moreover, considering the tight schedule in medical school's curriculum. We are of the opinion that a well structured dental course with a lot of audio-visual and simulation presentations specifically designed for medical trainees may go a long way to address this anomaly. In addition, only few universities in Nigeria have both medical and dental schools making it absolutely impossible for medical students to have adequate dental exposure during their training. However, it was observed that those that had training in dentistry demonstrated better knowledge of oral diseases than those that do not have any form of training. This observation supported earlier report by Herndon et al<sup>12</sup> that there is a positive association between training and confidence and the ability to perform recommended practices.

The respondents were mostly familiar with oral diseases managed by oral and maxillofacial surgery specialty. This was also not surprising because oral surgery is the oldest field in dentistry<sup>15</sup> and it has also been reported as the most popular dental specialty in Nigeria<sup>16</sup>. However, it has been reported that the general public knowledge of oral and maxillofacial surgeons is low when compared with other surgeons<sup>15</sup>. In a study by Adewole et al<sup>17</sup>, it was reported that only 5.4% of the general public have heard about the oral and maxillofacial surgeon as compared with 40% and 23.1% who have heard about the ear nose and throat surgeon and plastic surgeon respectively. Although, some studies have demonstrated increasing awareness of oral and maxillofacial surgery but the knowledge of the scope of services being provided remains deficient<sup>18,19</sup>.

## CONCLUSION

The knowledge of medical house officers about oral diseases and the dental specialties where such diseases

could be managed was quite poor. Also, exposure of medical students to dental training where it exists appears to be beneficial but it is grossly inadequate. In view of the important role a medical doctor can play in the prevention, detection and management of oral diseases, it is important to make exposure to dentistry an important part of medical curriculum.

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## APPENDIX I

### KNOWLEDGE OF MEDICAL DOCTORS ABOUT DENTAL SPECIALTIES

You are humbly invited to participate in this study designed to determine the knowledge of medical house officers about dental specialties. Your sincere response is highly appreciated. You may wish to write "do not know" in response to any question you are not familiar with. Thank you.

Age:..... Sex..... Marital Status.....  
 University Attended.....  
 Current Teaching Hospital address.....

#### Section A: Curriculum

- (i) Did you receive any training in dental surgery while in school? Yes/No
- (ii) If yes, to what extent? (a) lecture only (b) clinical only (c) both lecture and clinical
- (iii) For how long? (a) one day (b) 2-4 days (c) one week (d) > one week

#### Section B: Knowledge about dental specialties

To which specialist dental clinic will you refer a patient that present with?

- (1) Toothache due to decay
- (2) Irregular arrangement of the teeth
- (3) Retained roots
- (4) Fractured denture
- (5) Thumb sucking
- (6) Permanent teeth discoloration (In-born)
- (7) Oral ulcer and dry mouth
- (8) Mouth odour
- (9) Loose crown
- (10) Loss of all teeth
- (11) Accumulation of stains, plaque and calculus
- (12) Delayed eruption of deciduous teeth
- (13) Gingival recession and infection
- (14) Oral tumour
- (15) Lack dental care awareness in her village
- (16) Facial bone fractures
- (17) Inability to identify a brother among mass casualties
- (18) Cleft palate for which surgery is not contemplated
- (19) Complete loss of right ear due to trauma
- (20) A slide of dental tumour yet to be reported.