

# MEDICAL STUDENTS' PREFERENCE FOR CHOICE OF CLINICAL SPECIALTIES: A MULTICENTRE SURVEY IN NIGERIA

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## ABSTRACT:

### Background

The important goal of undergraduate medical training is to train doctors who would undergo further training to become specialists in various fields of clinical medicine. The admission into the specialty training program depends largely on the pool of undergraduate medical students who have passed qualifications exams and are willing to choose and undergo training in a given clinical specialty. There are many factors considered by medical students when they make up their minds to choose a clinical specialty. This study seeks to determine the medical student preference for the clinical specialty and the factors that they consider in making such choice.

### Methods

This is a cross-sectional questionnaire based multicentre study in 3 accredited medical training institutions in Nigeria. Final year medical students who were willing to participate in the study filled out the questionnaires for fifteen minutes. Information on their age, gender, specialty of preference and reason for choosing a particular clinical specialty were sought.

### Results

A total of 187 final year students took part in the study. Most of the students were in 21 – 30 year age range. Obstetrics and Gynaecology (24.9%), Surgery (18.9%), Internal medicine (14.1%) and Paediatrics (8.1%), were the top clinical specialties preferred by the respondents. The less preferred specialties were Pathology (2.7%), radiology (1.1%) ophthalmology (4.3%), ENT (0%). Personal liking (51.9%), society perception (13.0%), financial reward (8.1%); were the most considered reasons for the choice of specialty.

### Conclusion:

Medical students prefer to choose core-clinical specialty based on personal liking, financial reward and society perception.

**Keyword:** Medical Students' Preference; Clinical Specialties; Nigeria

## Introduction

The important goal of the undergraduate medical education is to train doctors and dentists who would become specialists in the various medical fields. The training of these specialists is important to raise standard of medical care and improve quality of medical education<sup>1</sup>. There is therefore need for adequate numbers of specialists in all clinical specialties to achieve these goals. Currently, there are a total of 14 faculties, which

offer specialty training in both the National postgraduate medical College of Nigeria and the West African Postgraduate Medical College. These faculties include Anaesthesia, Dental Surgery, Family Medicine, internal medicine, Obstetrics and Gynaecology; Ophthalmology, ENT, Paediatrics, Pathology, Psychiatry, public health, Radiology and Surgery<sup>2</sup>.

The admission into these faculties depends on

passing qualifications examinations. It is also dependent on vacancies available in accredited training institutions. But more importantly there must be candidates who are willing to choose the specialty and accept the existing vacancies. Obstetrics and Gynaecology, Surgery, Internal medicine and Paediatrics have produced the largest number of specialists in the country. On the other hand, training centers have found it difficult to recruit sufficient residents in the field of Anaesthesia, Psychiatry ENT, Pathology and Radiology. Sometimes these specialties do not have any candidate to fill up the vacancies<sup>2</sup>. This has created distortions and imbalances in clinical specialist manpower distribution in the country.

There are many factors considered by medical students when they are making up their mind to choose a clinical specialty. Assessing the determinants considered by the final year medical undergraduates in selecting these specialties is important. This would allow effective planning to achieve a balanced distribution of doctors in the various clinical specialties.

Various studies have been conducted to assess the factors that are considered by the students before they choose a clinical specialty. However, these studies are mainly single centre studies<sup>3,4,5</sup>.

This study is a multicentre study that seeks to document the preference of clinical specialties by the final year medical students and to determine the factors that they consider when choosing these clinical specialties.

### Method

This was a cross sectional study conducted in 3 accredited medical training institutions in Nigeria – the University of Jos, University of Port- Harcourt and University of Uyo.

Pretested and structured questionnaires were administered to final year medical students in the various medical schools at the same time. The questionnaires were administered only to students who gave verbal consent and indicated interest to be part of the study. The questionnaire was anonymous and prepared in English Language. The students were given adequate time to fill out the questionnaires independently. Information on respondents age, sex, preferences of clinical specialty and reasons for such preferences were obtained.

Data from the 3 centers were entered into SPSS

version 20 statistical software and analysis carried out by the same statistical software.

### Results

Hundred and ninety five students (97.0%) out of 201 students duly filled and returned the questionnaires within the stipulated period. Sixteen questionnaires that were not filled appropriately were excluded from further analysis. Eighty-one (43.8%) respondents were from University of Jos. While 54 (29.2%) and 50 (27.0%) were from University of Port-Harcourt and University of Uyo respectively. Most of the students who participated in the study 176 (95.1%) were in the 21 – 30 years age group. Those within 31 – 40 years accounted for 4.9% of the total number of respondents

#### (Table 1).

The top clinical specialty preferred by the respondents in all the 3 centers was Obstetrics and Gynaecology. Eighteen (22.2%), 16 (29.6%) and 12 (24.0%) at the University of Jos, University of Port-Harcourt and University of Uyo respectively expressed preference for Obstetrics and Gynaecology and considered the specialty their first choice. Surgery and Internal were the next preferred specialty choice by the students. No respondent chose ENT, Anaesthesia and Psychiatry

#### (Table 2).

Personal liking for the specialty was the single most important determinant for choice of clinical specialty. Ninety-six (51.9%) of respondents would choose a specialty for this reason. How society perceived the importance and role of the specialty, 24(13.0%) and financial reward, 18(8.1%) were the other important determinants of choice by respondents in the 3 centres (Table 3).

Age distribution (Table 1) Age distribution (Table 1)

Age group	Total number of students from the three centers
10 - 20	1 (0.5%)
21 - 30	176 (95.1%)
31 - 40	9 (9.0%)
<b>Total</b>	<b>185 (100%)</b>

**Preference for specialty (Table 2)**

Specialty	Jos	Port - Harcourt	Uyo	Total
Internal medicine	11 (13.6%)	10 (18.5%)	5 (10.0%)	26(14.1%)
Surgery	15 (18.5%)	12 (22.2%)	8 (16.0%)	35 (18.9%)
Obs&Gynae	18 (22.2%)	16 (29.6%)	12 (24.4%)	46 (24.9%)
Paeditrics	4 (4.9%)	6 (11.6%)	5 (10.0%)	15 (8.1%)
Pathology	4 (4.9%)	-	1 (2.0%)	5 (2.7%)
Comm. Medicine	4 (4.9%)	2 (2.5%)	1 (2.0%)	7 (3.7%)
Family Medicine	8 (9.9%)	3 (5.6%)	6 (12.0%)	17 (9.2%)
Radiology	1 (1.2%)	-	1 (2.0%)	2 (1.1%)
Ophthalmology	5 (6.2%)	2 (2.5%)	1 (2.0%)	8 (4.3%)
Undecided	11 (13.6%)	3 (5.6%)	3 (5.6%)	17 (9.2%)
<b>Total</b>	<b>81 (100%)</b>	<b>54 (100%)</b>	<b>54 (100%)</b>	<b>185 (100%)</b>

**Reasons for Preference of Specialty (Table3)**

Reasons	Jos		Port - Harcourt		Uyo		Total	
	n	%	n	%	n	%	n	%
Personal Liking	39	48.1	33	61.1	24	48.0	96	51.9
Family Influence	3	3.7	1	1.9	1	2.0	5	2.7
Friends Influence	1	1.2	1	1.9	1	2.0	3	1.6
Society Perception	11	13.6	7	13.0	6	12.0	24	13.0
Financial reward	10	12.3	3	5.6	2	4.0	15	8.1
Independence of Practice	6	7.4	5	9.3	-	-	11	5.9
Training less Strenuous	4	4.9	2	3.7	3	6.0	9	4.9
Specialty has many Role Models	2	2.5	1	1.9	3	6.0	6	3.2
Others	5	6.2	1	1.9	4	8.0	10	5.4
<b>Total</b>	<b>81</b>		<b>54</b>		<b>50</b>		<b>185</b>	

### Discussion

An important aim of undergraduate medical education is to produce doctors who would eventually undergo further training to become specialists in various fields of clinical medicine. The availability of doctors to fill the various fields depends on availability of training vacancies. But importantly it also depends on the choice of the specialty by the candidate. Some clinical specialties are preferred over the others for various reasons.

In this multicentre study, we found that Obstetrics and Gynaecology; Surgery, Internal Medicine and Paediatrics were the highly preferred clinical specialties. This agrees with the finding of Ohaeri<sup>6</sup> and colleagues in Ibadan. They had similarly observed that of 51 medical graduates that they studied 45 (95.7%) had preferred Surgery, Internal Medicine, Paediatrics and Obstetrics and Gynaecology.

This however contrasts with study by Chang<sup>7</sup> and colleagues as well that of Chang and Yang<sup>8</sup> both

conducted in Taiwan. The studies reported less preference for Obstetrics and Gynaecology; Surgery and Internal medicine in that country. They attributed this to heavy workloads and intense working pressure in these specialties.

Specialties like Radiology, Psychiatry and Anaesthesia, Ophthalmology, Family and Pathology, Community were considered by very few or none at all in our study. Again this corroborates the study by Ohaeri<sup>7</sup> and colleagues.

On the reasons for preference of specialties, we observed that personal liking was the most influential factor in choosing a specialty. Al-mendalawi<sup>8</sup> in his study of the Iraqi medical students agrees with this finding.

The rotation of students through less chosen specialties like anaesthesia, pathology, ENT etc is very short. In some cases the posting may be less than 4 weeks. This limits exposure time to learning of these specialties. With little knowledge, the

students are less likely to develop personal liking for these specialties and this may influence their interest in those specialties. If manpower shortages in these fields are to be reduced, the time the students spend in these specialties should be increased in the medical school curriculum.

Society perception and financial reward also accounted for the most influencing determinants contributing to the choice of specialty in the 3 centers. Previous studies have found financial reward as an important factor considered by medical students when considering the choice of clinical specialties<sup>9-11</sup>.

The role of specialists in the core-specialties like Obstetrics and Gynaecology, Surgery, Internal medicine and Paediatrics is better perceived and appreciated by the community. While other specialties have significant impact on health-care it obvious that medical student would chose specialties with good societal perception.

### Conclusion

The ability to understand and develop interest in a particular clinical specialty is dependent on many factors. Personal liking for a specialty is the most important determinant of these factors. Adequate learning time may be necessary to develop the liking for a given clinical specialty. Therefore to correct and avoid serious man-power shortages in fields like ENT, psychiatry, pathology and ophthalmology, more time should be allotted in the medical students' curriculum.

### References

1. Adebajo AA, Mabogunje OA, Pezzela AT. Residency training in the United States: what foreign students should know? *WJBM*.2003; 22: 79–87.
2. Danmole HP, Adeniji A. The Faculties, In: A History of National Postgraduate Medical College of Nigeria. Lagos. Miral Printing Press.2011: 50–69.
3. Oluta A. Residency Training in Nigeria. *Archives of Ibadan Medicine*. 1999; 6: 43 – 46.
4. Boniface IE, Onochie IE, Emmanuel NA. Factors influencing choice of medical Specialty of preresidency Medical Graduates in South-eastern Nigeria. *J GradMed educ*. 2011;3:367–371.
5. Ohaeri JU, Akinyinka OO, Asuzu MC. The specialty choic of clinical year students' at Ibadan Medical School. *Afri. J Med Sc*.1992; 21: 101–108.
6. Ohaeri JU, Akinyinka OO, Asuzu MC. The Specialty Choice of Intern at Ibadan....
7. Chang KJ, Chen CN, Chu SH. Survey and Analysis of surgical manpower after the Implementation of NHI. *Medical Education*. 1998;2: 45–53.
8. Chang YS, Yang CL. A preliminary look at the effect of National Health Insurance on changes in the number of different Specialty. *J National Public health Association*. 199; 18: 123–137
9. Yang MJ, Tsai JH. Specialty choices of students at a College of Medicine and relevant factors. *Medical Education* 1999; 2: 15–22.
10. Kao MY, Lu PH, Li MP. Medical students' specialty preferences and exploration of relevant factors. *Medical Education* 2000; 4: 23–37.
11. Babbot DL, Gerald S, Weaver SO. Medical School seniors in 1988. *Ann Intern med* 1991; 114: 16–22.
12. Newton DA, Grayson MS, Whitely TW. What predicts medical students' career choice? *J Gen Intern Med* 1998; 13: 200–203.
13. De Witt DE, Curtis JR, Burke W. What influences career choices among graduates of a primary care training programme? *J Gen Intern med* 1998; 13: 257–261.
14. Kiker BF, Zeh M. Relative future income expectation, expected malpractice premium cost and other determinants of physician specialty choice. *Health Soc Bch* 1998; 39 : 152–167.