

CHOICE OF ANAESTHESIA AS A CAREER BY MEDICAL UNDERGRADUATES IN  
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Received date: 08 September 2019

Revised date: 29 September 2019

Accepted date: 20 October 2019

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**ABSTRACT**

**Background:** The word anaesthesia is from the Greek words = an + aesthesis: without feeling. There is a staggering lack of medical manpower in anesthesia in developing nations in spite of its strategic role in modern medicine. Choosing a career is a complex exercise and maybe influenced by several factors. It is imperative to study these factors in order to plan future recruitment strategies, in a specialty which is reported as an unappealing choice for the medical students both in developing and developed countries. This study was conducted to determine career choice of these prospective specialists with emphasis on anesthesia. **Methodology:** This study was conducted among fifth and final year students of the College of Health Sciences, Benue State University, Makurdi, Benue State, Nigeria by the use of questionnaire. The class representatives of the respective classes administered the questionnaires, collected them at their completion and submitted them to members of the study team. **Results:** Eight one respondents representing 89.1% were aged between 21 and 30 years. There were 57 male respondents making up 62.6% of the study population and 34 female respondents representing 37.4% of the study population. Fifty-five of the respondents were in 500 level making up 49.5%, while 46 respondents were in the final year representing 50.5% of the study population. The commonest discipline preferred by the students surveyed were Surgery with 28 (30.8%), Internal medicine 20 (22.2%) and Obstetrics & Gynecology 11 (12.1%). Anesthesia, Pediatrics and Preventive Medicine got 7 (7.7%) each. A total of 113 responses were recorded with regards to the factors influencing choice of career. Of these, natural interest accounted for 49 responses making up 34.4%, while job satisfaction, personal convenience and role modeling by senior colleagues accounted for 19 (16.8%), 14 (12.4%) and 12 (10.6%) responses respectively. Sixty-four respondents believed that Anesthesia is interesting and important accounting for 70.3% of the study group. A total of 121 responses were obtained regarding how teaching of anesthesia can be improved. Of these, the need for more practical sessions accounted for 34 responses making up 35.5%. **Conclusion:** Anesthesia appears to be gaining ground as a career amongst prospective specialists. Nevertheless, it still lags behind traditional specialties such as surgery, internal medicine and obstetrics and gynecology. Much is still required to be done by way of adequately exposing undergraduates to the discipline.

**INTRODUCTION**

The word anaesthesia is from the Greek words = an + aesthesis: without feeling.<sup>[1]</sup> The scope of anaesthesia ranges from administration of anaesthesia in the operation room, critical care, pain management, resuscitation in the emergency room, transport of the critically ill as well as sedation for radiological and endoscopic procedures.

There is a startling lack of medical manpower in anesthesia in developing nations notwithstanding its strategic role in modern medicine. This may be so because most young doctors in Nigeria do not consider a

career in anesthesia when embarking on residency training.<sup>[2,3,4,5,6]</sup> Attitude towards anesthesia as a prospective career choice, varies among medical graduates from different regions of the world.<sup>[7,8]</sup>

Choosing a career is a complex exercise and maybe influenced by several factors. It is important to study these factors in order to plan future recruitment strategies, in a specialty which is reported as an unattractive choice for the medical students both in developing and developed countries.<sup>[9,10]</sup> The future workforce of our health-care systems are highly influenced by the choices students make.

This study was conducted to determine career choice of these prospective specialists with emphasis on anesthesia.

## METHODOLOGY

This study was conducted among fifth and final year students of the College of Health Sciences, Benue State University, Makurdi, Benue State, Nigeria by the use of questionnaire. There were a total of 91 respondents, (45 students in fifth year and 46 students in sixth year). The class representatives of the respective classes administered the questionnaires, collected them at their completion and submitted them to members of the study team.

The questionnaire contained demographics. Other items contained in the questionnaire include, choice of medical specialty and the factors that influenced their choices. In addition, students were asked as how Anesthesia was viewed by them as a specialty as well as the improvement they would like to see in the teaching of anesthesia. Data so collected were analyzed using SPSS version 25 using simple statistics.

## RESULTS

### AGE

Eight one respondents representing 89.1% were aged between 21 and 30 years. While there were 9 (9.9%) respondents aged between 31 and 40 years, only 1 (1.1%) respondent was aged between 50 and 60 years (tab 1).

### SEX

There were 57 male respondents making up 62.6% of the study population and 34 female respondents representing 37.4% of the study population (tab 1).

### CLASS LEVEL

Fifty-five of the respondents were in 500 level making up 49.5%, while 46 respondents were in the final year representing 50.5% of the study population (tab 1).

### PREFERRED DISCIPLINE OF RESPONDENTS

The commonest disciplines preferred by the students surveyed were Surgery with 28 (30.8%), Internal medicine 20 (22.2%) and Obstetrics & Gynecology 11

(12.1%). Anesthesia, Pediatrics and Preventive Medicine got 7 (7.7%) each. Those that preferred Radiology were 3 (3.3%), while Family Medicine and Hematology and Blood Transfusion got 2 (2.2%) each. Anatomical pathology, Ophthalmology, Chemical pathology as well as a respondent that was not interested in any of the disciplines recorded 1(1.1%) each (fig 1).

### FACTORS INFLUENCING CHOICE OF DISCIPLINE

A total of 113 responses were recorded. Of these, natural interest accounted for 49 responses making up 34.4%, while job satisfaction, personal convenience and role modeling by senior colleagues accounted for 19 (16.8%), 14 (12.4%) and 12 (10.6%) responses respectively. Humanitarian drive and personal aptitude recorded 6 (5.3%) each just as quality of teaching accounted for 3 (2.7%). Finally, gender issue, lucrativeness, peer influence and a respondent indicating lack of interest accounted for 1 (0.9%) response each (tab 2).

Of the 7 that chose anesthesia as a future career, while 3 gave personal convenience as their reason for choosing the discipline, 2 respectively gave natural interest and job satisfaction as theirs.

### RESPONDENTS' IMPRESSION OF ANAESTHESIA

Sixty-four respondents believed that Anesthesia is interesting and important accounting for 70.3% of the study group. However, 12 (13.3%) believe the subject of Anesthesia is boring, while 10 (11.0%) respondents feel that Anesthesia is just like any other subject in their school curriculum. Finally, 5 (5.5%) had no opinion (fig 2).

### WAYS BY WHICH RESONDENTS FELT TEACHING OF ANAESTHESIA COULD BE IMPROVED

A total of 121 responses were obtained. Of these, the need for more practical sessions accounted for 34 responses making up 35.5%. Need for teaching aid, need to increase the number of teachers and the need for more time to be allotted to the teaching of the subject accounted for 34 (28.1%), 23 (19.0%) and 19 (15.7%) respectively just as 2 (1.7%) gave no opinion (tab 3).

**Table 1: Socio-demographic Characteristics of Respondents (n=91).**

Variable	Frequency	Percent
<b>Age group</b>		
21-30	81	89.0
31-40	9	9.9
51-60	1	1.1
<b>Sex</b>		
Male	57	62.6
Female	34	37.4
<b>Level</b>		
500	45	49.5
600	46	50.5

**Table 2: Distribution of respondents by factors influencing choice of Specialty (n=113).**

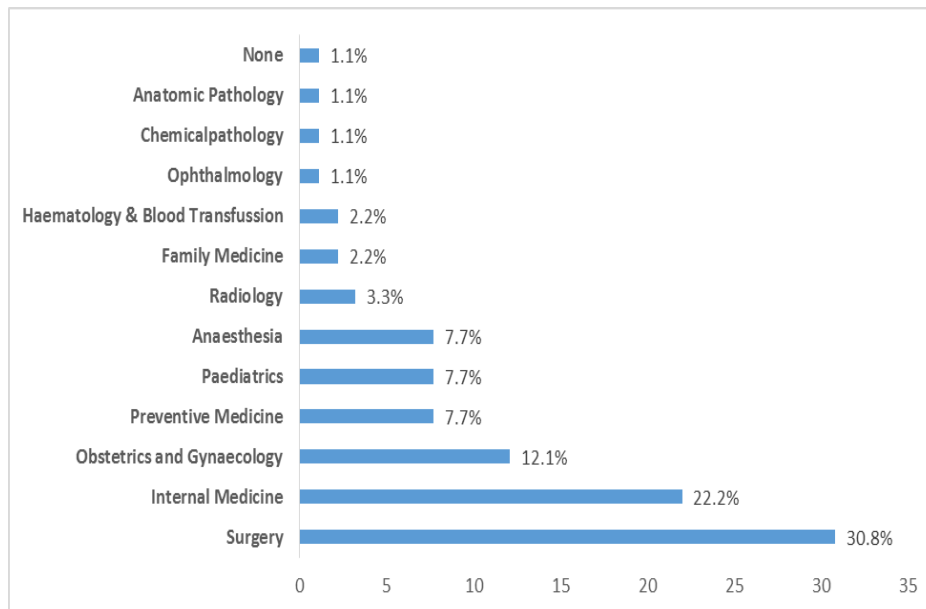
Variable	Frequency	Percent
Natural Interest	49	43.4
Job Satisfaction	19	16.8
Personal Convenience	14	12.4
Role Modelling By Senior Colleague	12	10.6
Humanitarian Drive	6	5.3
Personal Aptitude	6	5.3
Quality Of Teaching	3	2.6
Gender Issue	1	0.9
Peer Influence	1	0.9
Lucrativeness	1	0.9
Not Interested	1	0.9

\*\*Multiple responses

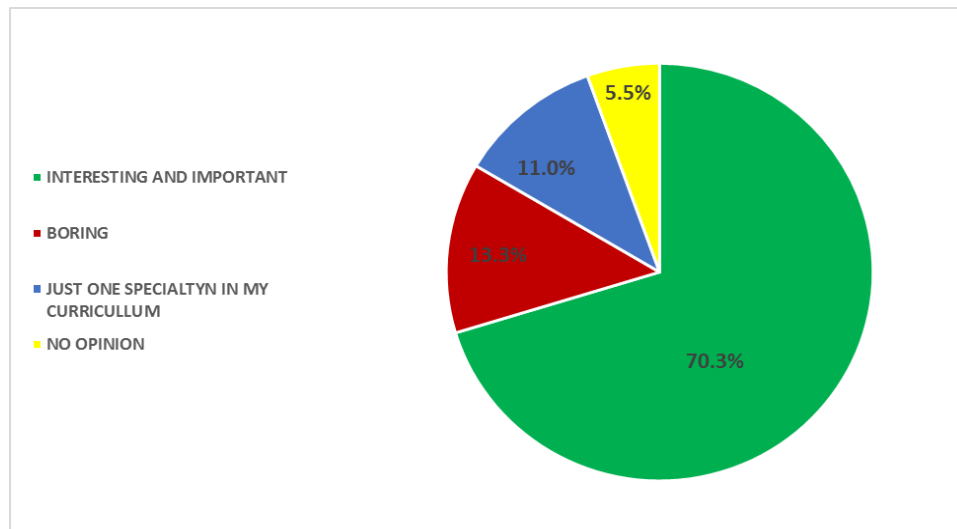
**Table 3: How to improve teaching of Anesthesia by Respondents (n=121).**

Variable	Frequency	Percent
Need for more practical sessions	43	35.5
Need for teaching aids	34	28.1
Need to increase number of teachers	23	19
Need for more time allotted	19	15.7
No opinion	2	1.7

\*\* Multiple responses



**Figure 1: Preferred Choice of Specialty by Respondents (n=91).**



**Figure 2: Impression of Anesthesia as a specialty by Respondents (n=91).**

## DISCUSSION

Majority of the respondents were aged between 21 and 30 years. This is understandable since most students complete secondary education in their teens and secure admission in the university mostly in their teens too or probably in their early twenties. However, some may not enter the university early enough. In addition reaching the final years of medical education in this institution would also take more than the usual time since the school had issues with accreditation earlier on resulting in some form of stagnation. These reasons may probably be responsible for the next most common age bracket being between 31 and 40 years. It is noteworthy the one of the students in 600 level was aged 55 years.

The fact that there are more males than females indicates that the gender gap in education remains a problematic issue requiring attention.

The near equal number of students in both 500 level and 600 level conforms to the school adhering to admission quota approved by the regulating authority.

The result indicates that the most preferred choice of specialization amongst these students were surgery, internal medicine and obstetrics and gynecology. Anesthesia belongs to the next most preferred along with pediatrics and preventive medicine. In a study conducted amongst 195 500 level and final year medical students in the University of Nigeria Enugu, Onyeka et al found that only 1% of respondents preferred Anesthesia. On the other hand, specialties like surgery (29%), pediatrics (14%), public health (14%), obstetrics and gynecology (12%), radiology (11%), internal medicine (5%) and ophthalmology (5%) were observed to be of more interest to them.<sup>[11]</sup> Similarly, in Israel, just 1% of their medical graduates and 5 - 6% of United States of America medical graduates choose anaesthesia.<sup>[12]</sup> This is in sharp contrast to 17.7% of Australian medical students intending to choose anaesthesia.<sup>[13]</sup> Generally,

interest in Anesthesia as a specialty may be growing it still remains low compared to other disciplines.

With regards to the factors influencing choice of career, natural interest, job satisfaction, personal convenience as well as role modeling by senior colleagues were the most reasons advanced by respondents. Onyeka et al reported that two factors had the greatest influence on the choice made by the students: the ability to have time for their hobbies and academic/research opportunities. Others were training post, career progression, earning potentials and presence of a role model.<sup>[11]</sup>

In their study Watts et al found that two-thirds of students identified a positive role model in their anesthetic teachers which was significantly associated with a satisfactory learning experience and a career choice in anaesthesia.<sup>[13]</sup> Furthermore, short period of exposure to anesthesia, insufficient participation in practical anesthesia and scanty provision of teaching aids have been cited as contributory factors to the problem of limited interest or none-interest in anaesthesia.<sup>[14]</sup> To avoid this problem, some have recommended the detailed teaching of subspecialist areas to undergraduates.<sup>[15]</sup> It has also been suggested that those students who learn advanced anesthetic skills are more likely to be interested in anesthesia as a career.<sup>[13]</sup>

That a vast majority feel that the discipline is important is an indication that the practice of anesthesia is gaining ground and it is being appreciated.

Respondents were of the opinion that teaching and learning of Anesthesia could be enhanced by making available more practical sessions, provision of teaching aid, increasing the number of teachers as well as allotting more time to teaching of the subject. These findings collate well with similar findings by Barnsley et al<sup>[14]</sup> and Alahlafi<sup>[15]</sup> et al who opined that tiny period of exposure to anesthesia, inadequate participation in practical anesthesia and scanty provision of teaching aids

have been mentioned as responsible for problem of limited interest or none-interest in anesthesia and have suggested the thorough teaching of subspecialist areas to undergraduates.

## CONCLUSION

In as much as Anesthesia appears to be gaining ground as a career amongst prospective specialists, it still lags behind traditional specialties such as surgery, internal medicine and obstetrics and gynecology. Much is still required to be done by way of adequately exposing undergraduates to the discipline. Students should not only be exposed early in their clinical training, but also the exposure should be more prolonged and sustained.

Conflict of Interest

None

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