

THE CHOICE OF SURGERY AS A FUTURE CAREER SPECIALTY AMONG MEDICAL INTERNS IN A NIGERIAN TERTIARY HOSPITAL

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ABSTRACT

Aim: To determine the factors affecting the choice of surgery as a future career specialty among medical interns in a regional hospital in Nigeria.

Method: A total of 74 junior doctors who completed internship training at the university of Benin teaching Hospital in 2012 were interviewed in this cross sectional study. A structured questionnaire was administered to determine the factors influencing the choice of surgery as a future career specialty.

Result: The respondents included 48 (64.9%) males and 26 (35.1%) females with a mean age of 26.94 ± 1.8 years. Twenty eight (37.8%) doctors were interested in the pursuit of a career in surgery while 46(62.2%) were not. The male doctors were more likely to choose surgery as a career than their female colleagues ($p=0.01$). The most common reasons given for choosing surgery as a career were 'scientific challenge of surgical practice' in 22(78.6%) and 'gratification from immediate patient outcome' in 14 (50.0%). The predominant reasons for not opting for surgery were 'demanding nature of surgical practice' in 18(39.1%) and 'no inclination towards surgery' in 11(23.9%) respondents. Poor practical exposure and lack of a role model were factors associated with a choice against surgery.

Conclusion: The choice of surgery as a future career specialty is common among medical interns in the sub region. Adequate mentoring and early practical exposure are among factors needed to maintain this interest.

INTRODUCTION

As in most part of the world, Nigerian medical graduates are required to undergo a period of supervised practical training in order to consolidate their medical knowledge and acquire the basic clinical skills necessary for patient care¹.

Perceptions and experiences acquired before and during this period of internship may affect future career decisions as noted in previous studies^{2,3}. A decline in the

number of medical graduates interested in the pursuit of a career in surgery has been noted in the Western world due largely to a desire for more controllable lifestyles^{4,5}. Factors affecting the choice of surgery among junior doctors have been shown in previous studies to include ability to sustain controllable lifestyles, burden of work, period of postgraduate training, personal interest and career ambitions⁵⁻⁸. In our setting however, the views of fresh medical doctors towards surgery as well as the factors affecting their choice of surgery as a future specialty has not been studied extensively.

Thus the study was done in order to address the above issues among this group

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METHODS

This cross sectional study was carried out at the University of Benin teaching hospital, Benin City, Nigeria among junior doctors at completion of 12 months of internship.

A total number of 74 fresh medical graduates who completed the 2011/2012 session of medical internship formed the study participants. They all had 3 months of posting in each of the 4 major medical specialties (internal medicine, surgery, obstetrics/gynaecology and paediatrics). Their surgical posting consisted of 2-4 weekly rotations in general surgery, urology, paediatric surgery, neurosurgery, orthopaedics, trauma, cardiothoracic, otorhinolaryngology, plastic and reconstructive surgery units. They were all involved in ward, clinic, theatre and emergency unit activities in these surgical sub specialties

The study was done at completion of internship when adequate clinical experiences which may affect career choices would have been acquired.

A structured questionnaire was administered to the respondents. The items in the questionnaire included demographic data, the perceptions of interns regarding surgery as a medical specialty, their experiences during surgical postings as well as the factors affecting the choice of surgery as a future career.

Data obtained were presented as frequencies, means /standard deviation and tables. Statistical analysis was done using Graph pad instat software (2012). P value less than 0.05 was considered significant.

RESULTS

A total of 74 out of 80 questionnaires distributed were returned (response rate of 92.5%).

The respondents included 48 (64.9%) males and 26 (35.1%) females

The age range of the respondents was between 23 and 30 years with a mean of 26.94 ± 1.8 years.

Forty nine (66.2%) doctors graduated from the University of Benin, 20 (27.0%) were from other medical schools in the country while 5(6.8%) were foreign trained.

Twenty eight (37.8%) were interested in the pursuit of a career in surgery. They consisted of 23 males and 5 females. The male medical interns were more likely to choose surgery as a career than their female colleagues ($p=0.01$). The remaining 46 (62.2%) either preferred the other medical specialties or were yet to decide.

The most common reasons given for choosing surgery as a career were 'scientific challenge of surgical practice' in 22 (78.6%) and 'gratification from immediate patient outcome' in 14 (50.0%). (Table II)

The predominant reasons for not opting for surgery among the respondents were 'demanding nature of surgical practice' and 'no inclination towards surgery'. (Table III)

General surgery was the most common surgical unit preferred by those interested in surgery (10 out of 28)

A satisfactory surgical posting during internship did not significantly affect the choice of surgery as a career specialty. Factors which were significantly associated with a choice against surgery included poor practical exposure and lack of mentors among the senior doctors.

TABLES

TABLE I: Interest in surgery in relation to gender

Gender	Interested	Not interested	Total	P-value
Male	23(31.1%)	25(33.8%)	48(64.9%)	0.01
Female	5(6.7%)	21(28.4%)	26(35.1%)	

Table II: Reasons for choosing surgery as a career

Reasons for choosing surgery	Number (N=28)	Percentage
Scientific challenge of surgical practice	22	78.6%
Gratification from immediate patient outcome	14	50.0 %
Procedure based practice	8	28.6 %
Lucrative nature of practice	8	28.6 %
No obvious reasons	1	3.6 %
Others	—	—

Table III: Reasons for not choosing surgery as a career

Reasons	Number (N=46)	Percentage
Demanding nature of surgical practice	18	39.1 %
No inclination towards surgery	11	23.9 %
Working at odd hours	9	19.6 %
Contact with body fluids	8	17.4 %
Not lucrative	5	10.9 %
Family / spouse pressure	3	6.5 %
Others	—	—

Table IV: Influence of perceptions and experiences acquired during training on choice of surgery as a career.

Perceptions/ Experiences	Number	<u>Surgery as a career</u>		P-value
		Yes(%)	No(%)	
Surgery internship				
- Satisfactory experience	41	16(21.6)	25(33.8)	0.81
- Unsatisfactory experience	33	12(16.2)	21(28.4)	
Practical exposure				
- Good	25	15(20.3)	10(13.5)	0.01
- Poor	49	13(17.6)	36(48.6)	
Surgery examinations				
- Passed first attempt	53	19(25.7)	34(45.9)	0.77
- Had repeat/resit	21	9(12.2)	12(16.2)	
Role model in surgery				
- Identified a role model	27	15(20.3)	12(16.2)	0.03
- No role model identified	47	13(17.6)	34(45.9)	

(Table IV) Overall surgery was the most sought specialty 28(37.8%), followed by internal medicine 10(13.5%), obstetrics/gynaecology 8(10.8%), paediatrics 7(9.5%), family medicine 6(8.1%), pathology 5(6.8%), radiology 2(2.70%), ophthalmology 2(2.7%). However, 6(8.1%) doctors were not sure of their future career specialty.

DISCUSSION

The choice of a future career specialty is an important subject among medical interns. We sought to determine the level of interest in surgery among this group of doctors.

The study showed that surgery was the most common choice of future career specialty among the respondents in the study. This finding is in keeping with studies conducted in other parts of the country^{2,8,9}. However, contrasting findings have been noted in some parts of the western world where a decline in the pursuit of the surgical careers have been noted^{5,10,11}. The male doctors in the study were more likely to pursue a surgical career than their female colleagues as noted in some studies in Nigeria and other parts of the world^{12,13}. Despite the increase in the number of female enrollment in medical schools in the country, there has not been a corresponding increase in the number of female residents in surgery in relation to the other medical specialties^{8,12,14}. This under-representation of female doctors in surgery has been attributed to the perceived effect of the demands of surgical training and practice on the home and family roles of women in our society¹².

The major reasons given for choosing surgery as a career were the scientific challenge associated with the practice, the gratification experienced from immediate patient outcome following a surgical procedure and the fact that surgery is a procedure based specialty (Table 11). This

finding is similar to that obtained in previous studies^{3,7,15}. The perception of surgery as a lucrative profession and an opportunity for personal and social gains were not major factors contributing to a choice of surgery. It appears the decision to embrace surgery among the doctors in the study was borne out of personal interest, an inclination towards hands-on practice and previous positive experiences with regards to patient care. Although 37.8 % of the doctors showed interest in surgery, the proportion of those who will eventually actualize their dream is beyond the scope of this study. The perceived level of satisfaction derived by the doctors during surgical internship did not significantly affect the choice of a surgical career. This suggests that the decision to choose a career in surgery may have been made at or before graduation prior to internship as noted in a previous study.³

The major factors against choosing a career in surgery noted in the study were lack of interest as well as the demanding nature of surgical training and practice. The demands of surgical training which is perceived to have a negative impact on the ability to sustain controllable lifestyles is a major reason against the choice of surgical careers worldwide^{4,12,16}. Lifestyle considerations have become more influential in career choices than traditional factors such as prestige and remuneration⁷. Other reasons for not choosing a surgical career noted in the study were family pressure, previous negative experience with surgery, tendency to work at odd hours of the day and increased likelihood of contact with blood / body fluids.

Poor practical exposure and paucity of mentors in surgery were factors associated with a choice against surgery. A study noted that attendance of surgical operations in theatre positively influenced

the perception of surgery among medical students¹⁵. Also, previous studies have noted that medical students who were able to identify a role model during surgery clerkship were more likely to choose a career in surgery^{2,17}. This emphasizes the need to stimulate the interest of medical students and junior doctors through practically oriented educational programmes and mentorship

A greater proportion of the 28 interns who were interested in surgery wish to become general surgeons in future. This suggests a greater interest in general surgery than in the other surgical sub specialties among pre-residency doctors in this region. The fact that medical students in this institution spend more time in general surgery clerkship than in the other surgical sub specialties may have partly accounted for this finding. However, in the western world, the interest of surgical trainees in general surgery has shifted towards the other surgical sub specialties such as urology, orthopaedics, neurosurgery, plastics and reconstructive surgery⁵. This finding may be a reflection of the development of surgical sub specialization in the developed countries.

CONCLUSION

The study has shown that a significant number of junior doctors are interested in a career in surgery. In the face of a growing desire for more controllable lifestyles by fresh medical graduates, the need to sustain this interest in this challenging specialty is very paramount. Early practical exposures, practically oriented medical curriculum, technologically driven surgical practice as well as adequate mentoring by senior doctors in surgery are some factors which may sustain or even stimulate further interest in surgery among doctors. Also, there is a need to put in place measures that will attract more female participation in surgery.

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