

Career Aspirations of Medical Students and Medical Interns in Ghana. Is there a difference?

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ABSTRACT

Background: Understanding the reasons for the selection of medical specialties by medical graduates is necessary for policy formulation and targeted mentoring to prevent a skewing of the lean resources and maximize the improving doctor to patient ratio in Ghana. This is particularly so due to an increase in the desire for specialization among medical graduates since the establishment of the Ghana College of Physicians and Surgeons.

Methodology: A cross-sectional study was designed. To consenting first and final year clinical students of the School of Medical Sciences, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana and first and second year medical interns at Komfo Anokye Teaching Hospital and Sunyani Regional Hospital respectively were administered semi – structured questionnaires. Data were analysed with SPSS version 24 and result put in tables and graphs

Result: Three hundred and forty and 100 questionnaires were administered to students and interns with 92% and 75% responders' rate respectively. The M: F ratio for students and interns were 1.23:1 and 1.34:1 respectively. Postgraduate specialization and additional qualification were desired by all categories irrespective of sex, financial or family consideration. Surgery (43.9% students; 33.3% interns) and Internal Medicine (23.8% students; 24% interns) were the 2 most popular choices.

Conclusion: While Surgery and Internal Medicine appeared to be the favoured choices by our students and interns, deliberate effort through mentoring is required to avert lop-sidedness in workforce in our hospitals.

Keywords: Students, Interns, Medical, Postgraduate

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Introduction

Understanding the reasons for the selection of medical specialties for postgraduate specialization by medical graduates is necessary for policy formulation and targeted mentoring to prevent a skewing of the lean resources and maximize the improving doctor to patient ratio in Ghana,^{1,2}. This is particularly so due to an increase in the desire for specialization among medical graduates since the establishment of the Ghana College of Physicians and Surgeons by an Act of parliament on the 28th January 2003. medical students spend 6 years in school followed by a two-year internship before full medical certification. This internship involves rotating through the departments of Internal medicine, Surgery, Paediatrics and Obstetrics and Gynaecology (O & G).

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Most studies scrutinizing the factors determining future postgraduate career goals of medical graduates have focused on these graduates after they have commenced their study of choice. Few studies have shown that the career choices medical students make are not necessarily what they end up pursuing^{3,4,5}. It is thought that they change their minds during their internship. If true, policies directed at modifying internship modules will then require not only the knowledge of the aspirations of medical students but also those interns with regards to their future specialization.

We therefore aimed to uncover the specialties that were popular postgraduate specialization prospects among medical students and to test the hypothesis that medical interns have career aspirations that have changed from that which they had while they were students.

Methods

A cross - sectional study was designed. To consenting first and final year clinical students of the School of Medical Sciences, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana were administered

semi - structured questionnaires. Similar questionnaires were issued to consenting first and second year medical interns at Komfo Anokye Teaching Hospital and Sunyani Regional Hospital respectively. Three hundred and forty students received questionnaires during the final semester of the 2014 academic session and 100 medical interns were given the questionnaires during the clinical meetings of their respective departments.

The demographics of the respondents (age, sex and year of study), the preferred field of specialization and the possible reasons for choosing such a specialty were the information accessed through the questionnaire. In addition, interns were asked whether their future career intentions had changed from those during their student days.

Data analysis was with SPSS version 23.0.

Results

The response rate for students and interns was 92% (n = 315/340) and 75% (n=75/100) respectively. Tables 1 display the respondents according to sex and year of study or internship respectively.

Table 1: Demographics of the respondents

Respondents	Students	Interns
Sex : Male	174	43
Female	141	32
Total	315	75
Year: 1 st Year	196	55
Final year	119	20
Total	315	75

Male: female ratio was 1.23: 1 for students and 1.34:1 for interns. Modal age range was 20 – 25 years for both students and interns. Postgraduate specialization and additional non-medical qualifications were desired by the majority of students (86.7%, 78.1%) and interns (96.1%, 77.3%). However, the desire to acquire an

additional non-medical degree was weakest amongst second year interns (45%). Surgery and Internal medicine were the most popular and second most popular choices for postgraduate specialization irrespective of status, sex and year of study or internship. While the desire to pursue a career in internal medicine remained unchanged



between students and interns (23.8%, 24%), the desire for surgery declined (from 43.9% to 33.3%) and that for paediatrics and other disciplines increased in the latter. Paediatrics was the second most favoured specialty for second year interns.

Figure 1 depicts the preferred choices of the respondents. Figures 2 and 3 highlight the preferred specialties by sex and status, and by sex and year of internship respectively.

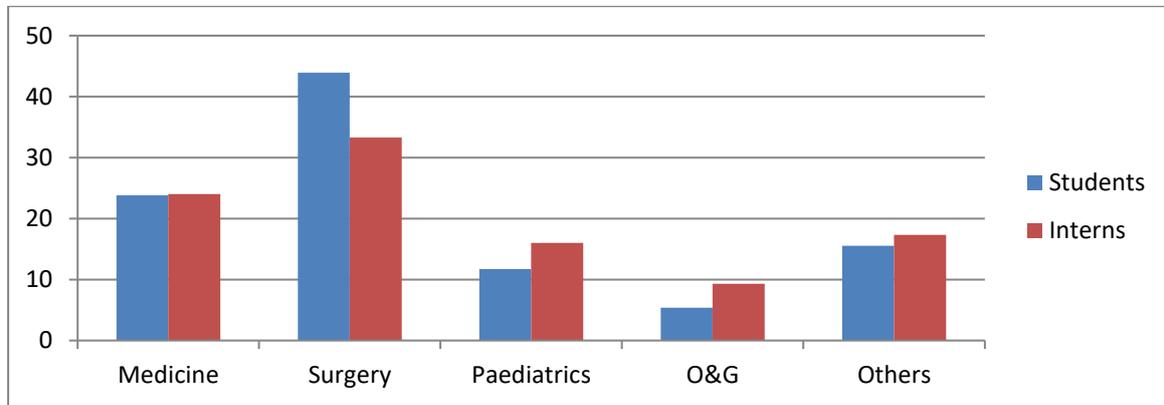


Figure 1 - Preferred postgraduate careers (%)

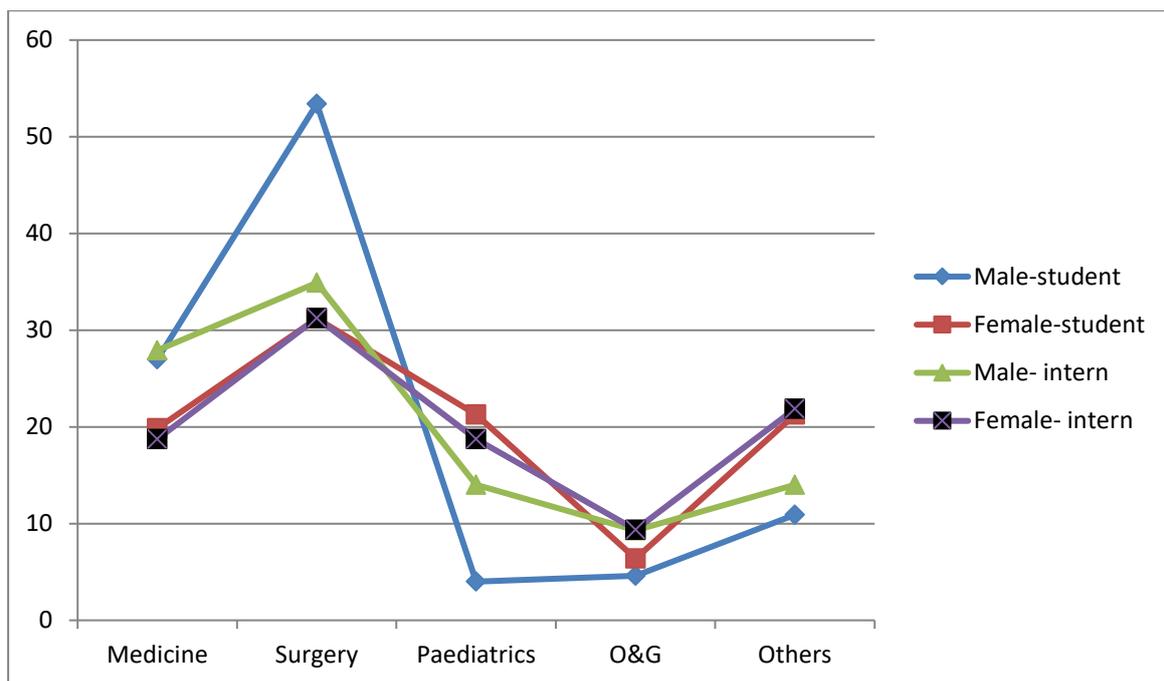


Figure 2 - Preferred specialty (%) by sex and status



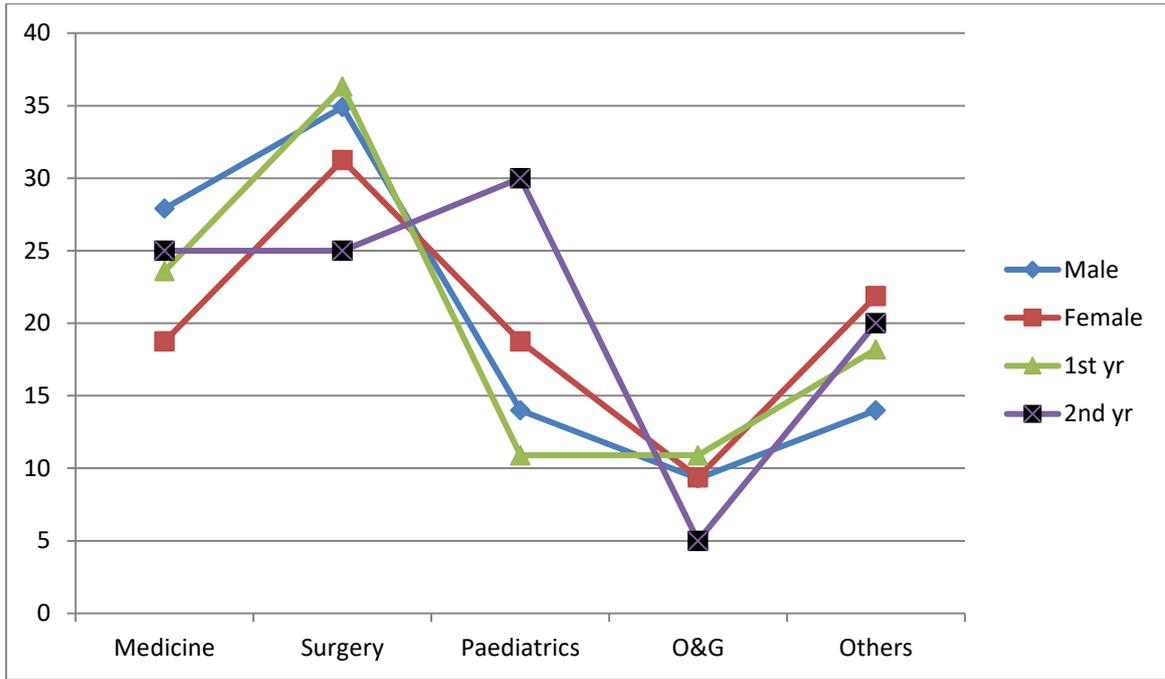


Figure 3 - Preferred Specialty (%) by sex and year of internship

Personal interest was the predominant factor influencing respondents in their choice of career (Students-73.9%, Interns 80.4%). Almost two-thirds of the interns (64.36%) maintained the

choices of postgraduate pursuit they had in mind whilst students. Figure 4 displays the factors determining the postgraduate choices of the respondents.

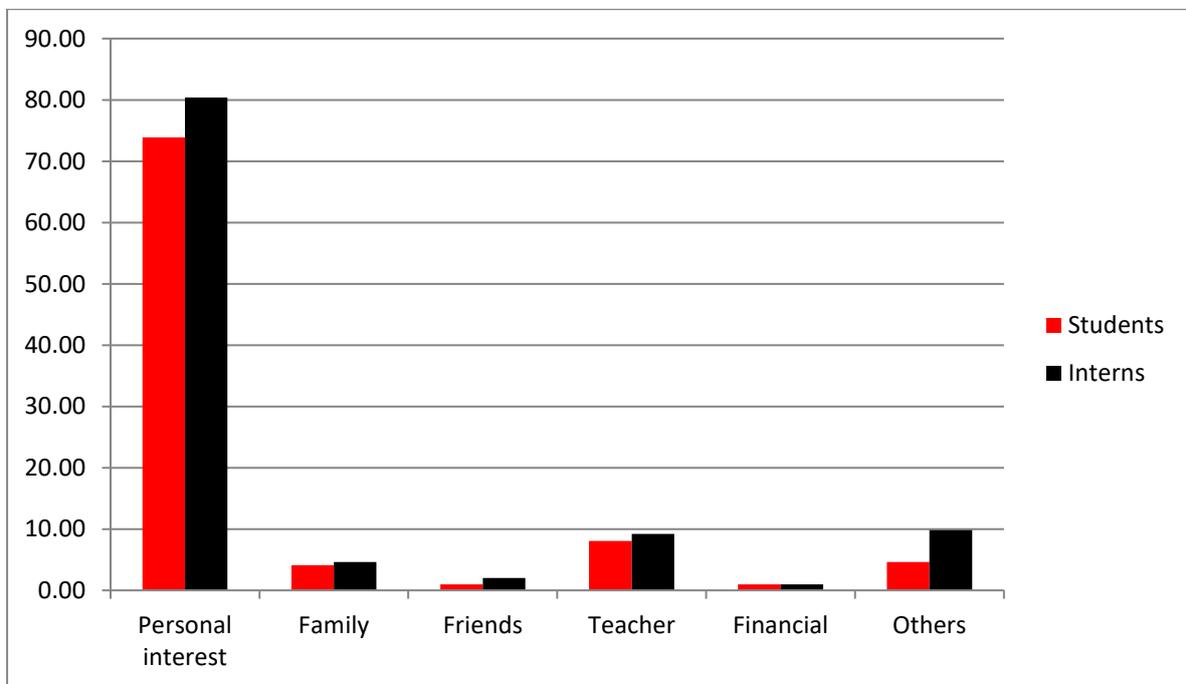


Figure 4 - Factors influencing respondents' postgraduate choices



Discussion

This study gives an overview of the perspectives of both medical students and medical interns concerning their postgraduate career plans. Though the response rate was lower for the interns, the demographics of the two populations were satisfactorily representative. Female medical undergraduate numbers were approaching that of their male counterparts. This finding has been documented elsewhere⁶.

We discovered that though most respondents wanted an extra qualification in a non-medical field, less than half of the second year interns expressed interest in this direction. Perhaps a better appreciation of the scope of medicine associated with progress in the completion of one's training has attributed to this. Kim and colleagues have found that though an increasing number of Korean medical undergraduates were opting for careers in non-clinical fields and wish for opportunities to explore courses outside of medicine, the gradient of interest dropped as the students progressed in their training⁷. While some studies have interrogated the influence of intercalated degrees (by choice or integrated) on the eventual career decisions of medical students, few have evaluated the desire to acquire degrees in fields other than medicine⁸. Most medical schools in Ghana have an integrated intercalated basic medical science degree in their undergraduate programs.

Surgery was the most popular career choice for both students and interns. This was consistent with findings in other studies demonstrating surgical and medical subspecialties as favourite career targets of medical graduates^{9,10,11}. Our study did find subtle gender preferences. Males (students and interns) were relatively more likely to pursue careers in Surgery or Medicine, and females, careers in Paediatrics and other disciplines. O&G was the least favoured clinical specialty by status or sex. Gender preferences vary from region to region. Yusur Al-Nuaimi and colleagues in the UK discovered that males preferred O&G, Psychiatry, Vascular and General surgery while more females chose Paediatrics, Maxillofacial surgery and General practice¹¹.

Females in most other studies preferred O&G and Paediatrics^{10,12,13}.

Future postgraduate career plans of one-third of the interns in our study had changed from those they made when they were still students. This resonated with the findings of McManus et al in the UK where a third of doctors in their study were pursuing careers they had previously rejected⁸. In Canada, about half of the respondents had changed their minds about future career prospects by the time they were finishing their undergraduate training³. These changes may reflect the mix of cognitive and individual personality traits with the realities of clinical exposure^{14,15}. The selection pattern among second year interns in our study revealed a 20% drop in interest for surgery and a 10% increase in favour of Paediatrics. Most notable was the 34% decline in the interest to pursue a surgical career among male interns.

Unspecified personal interest was the predominant factor cited by students and interns as being responsible for the career choices they made. Surprisingly, financial and family considerations played little roles in the decision making process.

Conclusion

Since Interns can change their minds, there is a door of opportunity to modify and mentor them in a deliberate fashion during this period, so that workforce shortages can be pre-empted and forestalled. However, longitudinal studies evaluating the possible evolution of the choices of respondents as they transit through time are required in order to better understand the personal preferences and other factors influencing their career intentions

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