DETERMINANTS OF INTENTION TO EMIGRATE AMONG FINAL YEAR MEDICAL STUDENTS AND JUNIOR DOCTORS IN GHANA

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Abstract

Objective: Historically, doctors left the shores of Ghana for professional development and greener pastures; however, the institution of Ghana College of Physicians and Surgeons to train postgraduate doctors locally significantly reduced the rate of emigration.

Methodology: A cross-sectional survey-based study of final year medical students of the University of Ghana Medical School, house officers and medical officers working at the Korle Bu Teaching Hospital. Demographic data, Push Factors (poor conditions of service, lack of equipment and facilities, and economic instability) and Pull Factors (better career opportunities, shorter length of training programmes, family or spouse living abroad and improved conditions of service) were collected and analysed.

Results: Of the 189 respondents, 94.18% intended to pursue postgraduate medical education, with greater than half wanting to go outside Ghana due to push factors. The existence of a well-established postgraduate training programme in Ghana, was a consideration that could influence their decision to stay for 24.27% of the participants who wished to emigrate, however for 65.05%, this did not influence their decision. Other factors like the Covid-19 pandemic had no impact on the decision to emigrate among most respondents.

Conclusion: Physician emigration, although dynamic, is not as rife as it was two to three decades ago in Ghana. This study recommends a review of existing policies and strategic planning among all stakeholders to ensure that postgraduate training is locally attractive to stem the possibility of another cycle of brain drain.

Key words: *Emigration, Junior doctors, Ghana, Medical students.*

Introduction

In 2030, the global deficit of healthcare personnel is expected to be 14 million (2.3 million being doctors). Current health worker production and employment patterns will not be sufficient to address the overall shortfall of healthcare workers, with Sub-Saharan Africa expected to be badly affected as it bears 24% of the world's disease burden, but only 3% of the global health workforce[1,2]. In addition, the population has risen dramatically and is faced with a pandemic of non-communicable diseases, existing communicable illnesses, and economic difficulties that impact its health systems through poor funding and infrastructure [2]. Any physician emigration is detrimental.

The "push factors", classified as economic, social, and political, are some of the reasons why doctors leave their country of origin. Importantly, the lack of residency training programs in the country of origin has traditionally been a significant reason for medical graduates to move to developed countries. Between 1985-1994, 60.9% of locally trained physicians in Ghana were lost to migration[3]. "Brain drain" is known to cause scarcity of healthcare workers; weakened healthcare systems; economic loss and waste, with Ghana losing an estimated 415 million US dollars due to physician migration[4]; and endangering the well-being of vulnerable populations [5].

On the other hand, the "pull factors" are strategic interventions and policies put in place by the destination country. Adovor et al. showed that destination countries become 132% more attractive when they implement a point-based system, 124% more appealing when it offers a path to permanent residence, 65% when tax cuts are targeted toward immigrants, 54% when visa restrictions are eased, and 28% when medical diplomas are recognized[6].

A study conducted in 2013 showed that the retention rates of locally trained Ghanaian physicians improved from 54.2% in 1998 to 86.3% in 2008 and 78.5% of the retained doctors were in postgraduate training programmes[7]. The retention of locally trained physicians could be attributed in part to establishing residency training as basic postgraduate medical/surgical training for fully certified medical doctors and dental surgeons in a particular specialty in Ghana. Africa's health workforce growth initiatives have centered on increasing the number of primary care providers, resulting in a higher demand for medical specialists [8]. Since its inception in 2003, the Ghana College of Physicians and Surgeons has produced 1200 graduates at the membership level; 140 of these graduates furthered their training to the fellowship level[9].

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The nature of physician emigration is dynamic; therefore, there is a need to review current trends. The purpose of this study was to identify and evaluate the factors that influenced final year students of the University of Ghana Medical School and junior grades of doctors, notably House Officers and Medical Officers, at Korle Bu Teaching Hospital, to emigrate to other countries.

Materials and Methods

This was a cross-sectional, quantitative study that used a well-structured, self-administered questionnaire to collect data. The participants were selected based on convenience sampling. The study was conducted at the University of Ghana Medical School and Korle Bu Teaching Hospital. The study population consisted of final-year medical students, house officers, and medical officers working across different specialties at the Korle Bu Teaching Hospital. The exclusion criterion was Participants who did not provide consent to participate in the study were excluded. Data collected included sociodemographic information, level of training, details about intentions to migrate and the reasons fueling the intentions, whether the participants had considered postgraduate training programme in Ghana, and if they decided to remain in Ghana – reasons for this decision. The data were entered and analyzed using RStudio version 2022.07.0 and Microsoft Excel version 16.72. Descriptive statistics were used for frequency counts and percentages. Ethical approval was obtained from the Community Health Dissertation Review Committee.

Results

A total of 436 participants were targeted for the study using the Yamane formula. Completed questionnaires were received from 189 participants, resulting in a response rate of 43.34% (189/436). Ninety-eight males represented 51.85% of the sample. The number of females who participated in the study was 91, representing 48.15%. Table 1 shows the distribution of final year medical students, house officers and medical officers who participated in the study.

Table 1. Distribution of Final Year Medical Students, House Officers and Medical Officers

Current Level of Training	Frequency (N=189)	Percentage (%)
Final Year Medical Students	134	70.90
House Officers	50	26.5
Medical Officers	5	2.6

Intention to Pursue Post-Graduate Medical Training

The majority of the participants, 178 (94.18%), intended to pursue postgraduate medical training; however, two participants (1.06%) did not intend to pursue postgraduate training, and nine participants (4.76%) were unsure. Fig.1 The most popular choice of specialty reported by 56 participants (29.63%) was general surgery; however, 34 (17.99%) participants were undecided about the specialty they intended to pursue. Table 2.

Table 2. Choice of Specialty

Choice of Specialty	Frequency (N=178)	Percentage (%)
General Surgery	54	30.34
Undecided	27	15.17
Obstetrics and Gynaecology	16	8.99
Internal Medicine	21	11.80
Paediatrics	12	6.74
Anaesthesia	9	5.06
Family Medicine	8	4.49
Ophthalmology	7	3.93
Psychiatry	5	2.81
Ear, Nose and Throat	5	2.81
Community Health	4	2.25
Radiology	3	1.69
Orthopedics	2	1.12
Cardiology	1	0.56
Urology	1	0.56
Maxillofacial Surgery	1	0.56
Dermatology	1	0.56
Public Health	1	0.56

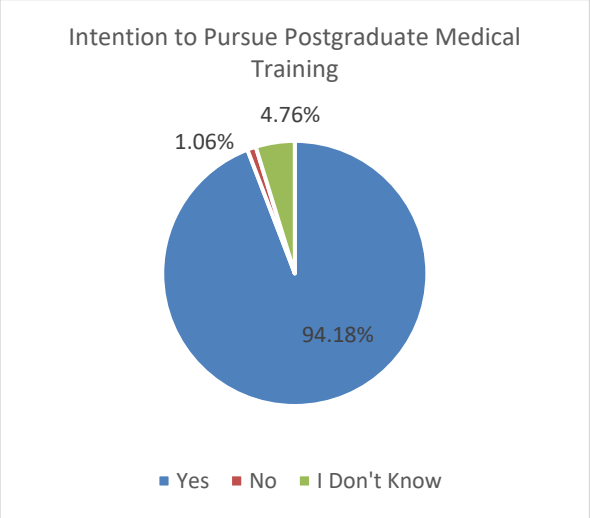

Figure 1 Intention to Pursue Postgraduate Medical Training

The total number of respondents who intended to pursue postgraduate medical training abroad was 103 (57.87%), whereas 49 (27.52%) intended to pursue postgraduate medical training in Ghana. Twenty-six

participants (14.61%) were undecided about where they wished to pursue postgraduate medical education. For those who wished to emigrate, the existence of a well-established postgraduate training program in Ghana was a consideration that could influence their decision to stay in 25 (24.27%) of the participants; however, 67 (65.05%) said that this did not influence their decision and 11 (10.67%) were unsure.

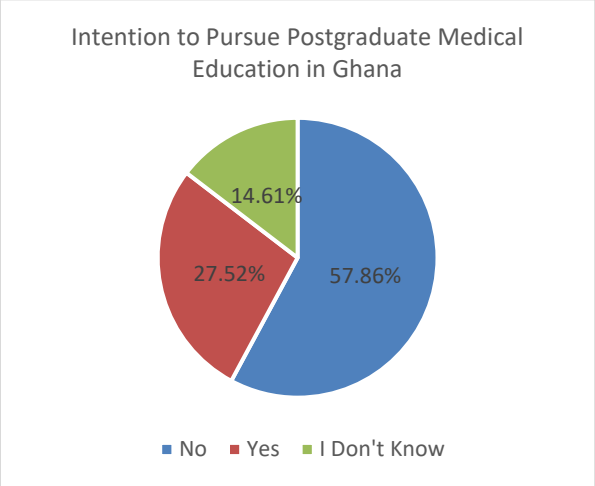

Figure 2 Intention to Pursue Postgraduate Medical Education in Ghana

Of the 103 participants who intended to emigrate, 54 (52.43%) planned to emigrate to the United States of America and 21 (20.39%) intended to emigrate to the United Kingdom. Table 3.

Table 3. Country of Choice for participants who Intend to Emigrate (N=103)

Country of Choice	Frequency(N=103)	Percentage (%)
United States of America	54	52.43
United Kingdom	21	20.39
Canada	11	10.68
Australia	3	2.91
Germany	9	8.74
France	1	0.97
Netherlands	1	0.97
I Don't Know Yet	2	1.94
Anywhere Outside Ghana/Africa	1	0.97

Finally, of the 103 participants who intended to emigrate, 58 (56.31%) had intentions to return, 18 (17.48%) did not intend to return, and 28 (26.21%) were unsure about their intention to return to Ghana.

Push and Pull Factors

Multiple factors were stated as reasons for the intention to emigrate among the participants. These included better career opportunities (90.48%), better equipment and facilities (86.67%), and improved service conditions (87.62%). Other factors were shorter length of training programmes, family/spouse living abroad, and financial remuneration. Fig.3

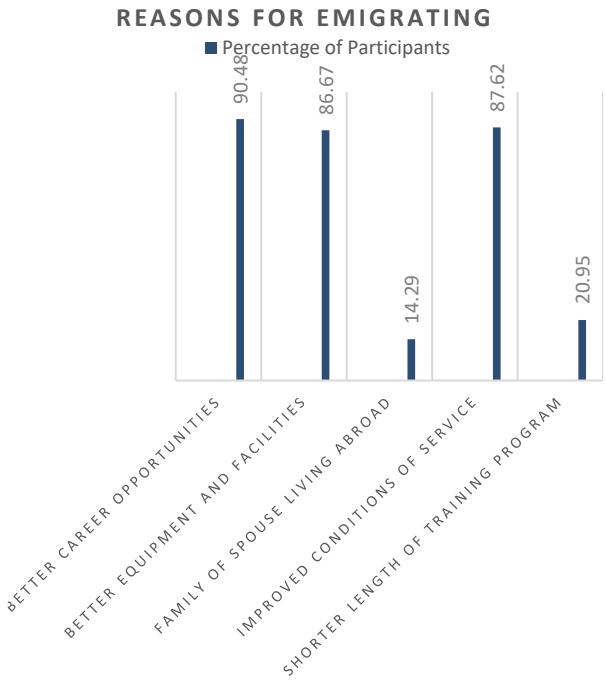

Figure 3 Reason for Emigrating

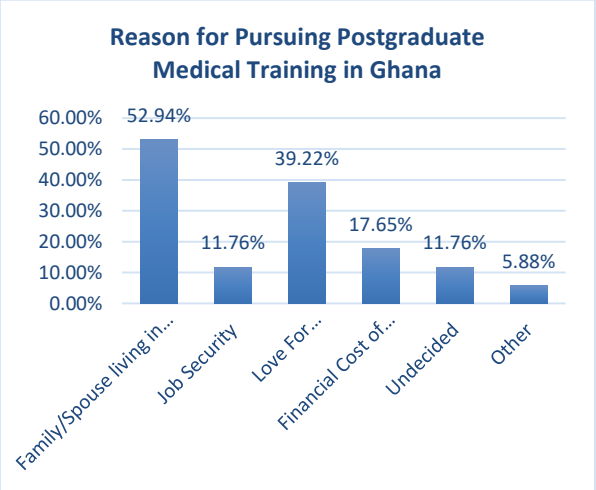

Figure. 4 Reasons for Pursuing Postgraduate medical training in Ghana

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Reasons for Staying

For the participants who intended to stay in Ghana, 27 (52.94%) sited family/spouse living in Ghana as a reason for pursuing postgraduate education in Ghana; for 12 (23.53%), it was the sole reason for choosing to pursue postgraduate medical training in Ghana. This was followed closely by respondents who enjoyed living in Ghana and were patriotic about their country (39.22%). Fig 4.

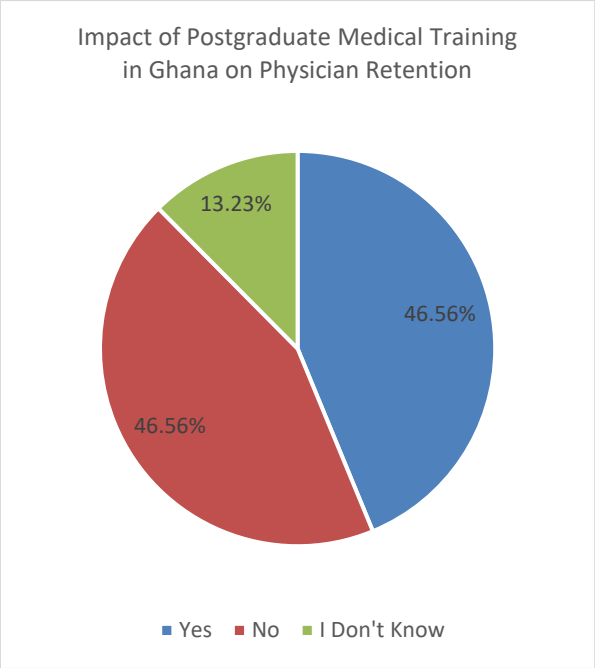

Figure 5 Pie Impact of Postgraduate Medical Training in Ghana on Physician Retention

Of the 189 respondents, 88 (46.56%) clearly stated that the availability of postgraduate medical training in Ghana was not a sufficient reason for them to stay in Ghana; however, 76 (40.21%) said it could influence their decision to stay in Ghana.

The Impact of the Covid-19 Pandemic

Of the 189 participants, 164 (86.77%) said that the Covid-19 Pandemic did not influence their decision to emigrate or stay in Ghana; however, 14 (7.41%) said it had influenced their decision to emigrate. Eleven respondents (5.82%) were undecided.

Discussion

This study shows current trends among final year medical students and junior doctors regarding postgraduate medical training and highlights that a greater majority of the final year students, house officers and medical officers interviewed had intentions to pursue further postgraduate training in various areas of medical specialization. In view of this, the Ghana College of Physicians and Surgeons has been successful in its mandate, alongside the national healthcare plan to increase the number of specialists who will provide improved healthcare across the country.

However, over half of the participants showed clear intent to emigrate, and only 27.52% intended to pursue postgraduate medical training in Ghana. The latter being much lower than 51.7% of participants who indicated that the availability of training programmes was the reason they had decided to stay in Ghana in an earlier study in 2014 [10]. In this current study, the availability of local programmes was not enough to prevent those who wished to leave from pursuing postgraduate training outside Ghana. For those who wished to stay, family or spouse living in Ghana were indicated as the chief reasons.

Ghana may face significant physician shortfalls if the current phenomenon of physician emigration persists. According to current trends, there will be a physician shortage of approximately 7,876 in Ghana by the year 2025[11], which could put significant strain on an already inadequate healthcare system. This study showed that 57.86% of participants intended to emigrate; the key pull factors were noted as better career opportunities, followed closely by improved service conditions and better equipment and facilities. Adeniyi et al in a Nigerian study also showed that 60.1% of doctors starting out early in their careers planned to emigrate with similar reasons for better quality of life followed by better quality of postgraduate training and, finally, better remuneration [12]. Gouda et al showed similar findings among Irish medical students that better career opportunities, working conditions, lifestyle were the main reasons for the intention to emigrate.[13]

The duration of training was also another significant factor influencing the decision to emigrate with shorter training programs abroad, being an attractive pull factor among a fifth of the medical students and doctors. Overall, established postgraduate training programmes, a broader selection of sub-specialty disciplines, the advent of newer investigative and therapeutic interventions coupled with research opportunities, and perceived quality of life make the practice of medicine very attractive in high-income countries.

Over half of the participants indicated a preference to move to the United States of America, which is unsurprising, as the United States of America assimilates majority of the world's physicians.[14] As a country, the United States of America is proactive in reducing deficits in the healthcare workforce to cater to the aging population and aging healthcare workforce through various policies and incentives that make it attractive for International Medical Graduates, who, for example, contribute 41% of primary care doctors [11,12]. Additionally, a common language significantly influences the migration destinations of physicians [17]. As shown in this study, over 80 % of the respondents planned to emigrate to a country with English as the official language, commonly in the United States of America, the United Kingdom, Canada, and Australia.

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Arah (2007) concluded that the combination of developed countries with an anglophone-based healthcare system was very attractive to English-speaking African countries such as Ghana[19].

In recent times, the Covid-19 pandemic has had a massive impact on health systems across the world and has strained even the most robust systems and healthcare workforce. As a result, some governments have put in place measures to enhance their response to the pandemic, such as relaxing visa requirements for medical professionals to allow migration. In this study, junior doctors and final year medical students were not generally aware of these policies and thus had no major influence on their decisions.

However, emigration should not only be viewed negatively. Skilled migration has three feedback effects, reflected in brain gain or circulation. Return migrants enhance the local landscape through knowledge sharing of their skills and job experience from abroad, thereby contributing to development.[19] Generally, some doctors who emigrate return to their home countries. This is reflected in the study, which showed that over half of the participants had intentions to emigrate and plans to return at some point in their careers, thus strengthening the notion that they are not lost to the developed world but will contribute to the development of their home country. In a positive light, a recent study in South Africa, showed that 45.4% of physicians who had emigrated returned back to their native country. [20] Though, it is clear that the intention to return does not necessarily result in one returning as the factors and circumstances change, there is still a risk that physicians who intend to return may never return. [21]

This study selected participants at the start of their careers and provided a clear description of intentions for postgraduate medical training held by the final year medical students and junior doctors. It indicates clearly the wish to pursue specialized training, however brings to the fore the shifting norm that majority wish to pursue training abroad. The impact of covid-19 infection on the decision to emigrate is also a new facet that is important in driving migration patterns that has not been studied before. As a limitation, the participants were captured from only one training site in Ghana. A survey covering a wider population would be helpful for obtaining the views of many other medical students and junior doctors.

Conclusion

The emigration of physicians is a dynamic phenomenon. Previously known determinants are still present and remain consistent drivers of physician emigration. The introduction of Postgraduate Medical Training significantly stemmed physician emigration in the past; however, the effect of its existence in preventing locally trained doctors from emigrating may be waning. A review of existing policies and strategic planning among all stakeholders, including the Ministry of Health, Ghana Health Service, Ghana College of Physician and Surgeons, Training Institutions and doctors, must tackle recurring issues and address newer challenges, such as the length of training, as an exodus of doctors and brain drain may be upon us again. Local governments must create a receptive environment that encourages doctors trained abroad to return home.

References

1. Taylor AL, Hwenda L, Larsen BI, Daulaire N. Stemming the Brain Drain — A WHO global code of practice on international recruitment of health personnel. *N Engl J Med*. 2011; 365:2348–2351.
2. Kana M. From brain drain to brain circulation. *Jos J Med*. 2010; 4.
3. Dovlo D, Nyonator F. Public Health Specialist, Ministry of Health Ghana.
4. Saluja S, Rudolfson N, Massenburg BB, Meara JG, Shrime MG. The impact of physician migration on mortality in low and middle-income countries: An economic modelling study. *BMJ Glob Health*. 2020; 5: e001535.
5. Mackey TK, Liang BA. Rebalancing brain drain: exploring resource reallocation to address health worker migration and promote global health. *Health Policy*. 2012; 66–73.
6. Adovor E, Czaika M, Docquier F, Moullan Y. Medical brain drain: How many, where and why? *J Health Econ*. 2021; 76:102409.
7. Lassey AT, Lassey PD, Boamah M. Career destinations of University of Ghana Medical School graduates of various year groups. *Ghana Med J*. 2013; 47:87–91.
8. Talib Z, Narayan L, Harrod T. Postgraduate medical education in Sub-Saharan Africa: A scoping review spanning 26 years and lessons learned. *J Grad Med Educ*. 2019; 11:34–46.
9. Adanu RMK. Contemporary needs in medical specialist services in Ghana. *Postgrad Med J Ghana*. 2021; 10:72-73.
10. Amuakwa-Mensah F, Nelson AA. Retention of medical doctors in Ghana through local postgraduate training. *J Educ Pract.* 2014; 5: 120-133.
11. Avoka Asamani J, Chebere MM, Barton PM, Amah D' Almeida S, Odame EA, Oppong R et al. Forecast of healthcare facilities and health workforce requirements for the public sector in Ghana, 2016-2026. *J Kerman Univ Med Sci*. 2018
12. Adeniyi MA, Efuntoye O, Popoola G, Adebayo O, Ekundayo O, Ibiyo M, et al. Profile and determinants of intention to migrate by early career doctors in Nigeria: A report from CHARTING study. *Int J Health Plann Manage*. 2022; 37:1512–1525.
13. Gouda P, Kitt K, Evans DS, Goggin D, McGrath D, Last J, et al. Ireland's medical brain drain: Migration intentions of Irish medical students. *Hum Resour Health*. 2015; 13:1–9.

  doi: 10.60014/pmjg.v12i2.318

14. Bhargava A, Docquier F, Moullan Y. Modeling the effects of physician emigration on human development. *Econ Hum Biol*. 2011; 9:172–183.
15. Zaidi Z, Dewan M, Norcini J. International medical graduates: Promoting equity and belonging. *Acad Med*. 2020; 95: S82–S87.
16. Martineau T, Decker K, Bundred P. "Brain drain" of health professionals: From rhetoric to responsible action. *Health Policy*. 2004; 70:1–10.
17. Bourassa Forcier M, Simoens S, Giuffrida A. Impact, regulation and health policy implications of physician migration in OECD countries. *Hum Resour Health*. 2004; 2:1–11.
18. Arah OA. The metrics and correlates of physician migration from Africa. *BMC Public Health*. 2007; 7:1–7.
19. Lowell BL, Findlay A. Migration of highly skilled persons from developing countries: impact and policy responses synthesis report. International Labour Organization. 2002.
20. Nwadiuko J, Switzer GE, Stern J, Day C, Paina L. South African physician emigration and return migration, 1991–2017: A trend analysis. *Health Policy Plan*. 2021; 36:630–638.
21. Tankwanchi ABS, Özden Ç, Vermund SH. Physician emigration from Sub-Saharan Africa to the United States: Analysis of the 2011 AMA Physician Masterfile. *PLoS Med*. 2013;10.

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