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9 **Discussion Points:** Nigeria continues to battle severe physician shortages coupled with the brain-drain  
10 phenomenon in developing Nations. As the Country explores solutions to reverse the trend, there may be a  
11 need to target interns' experiences to increase the retention of local talent. #HouseOfficers #Experience  
12 #BrainDrain

13

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1 **ABSTRACT.**

2 Nigeria faces a critical shortage of health workers, exacerbated by a growing of physician emigration. This study  
3 explored the negative internship experiences that drive Nigerian interns to migrate abroad, with a focus on the  
4 COVID-19 pandemic's impact. Interns cite excessive workload and burnout, lack of professional development  
5 opportunities, challenging work environment, and mistreatment as key reasons for considering emigration. The  
6 COVID-19 pandemic has exacerbated these challenges, leading to shortages of personal protective equipment,  
7 limited screening services, and poor hazard allowances. The paper emphasizes the importance of adopting  
8 policies that make destination countries attractive to emigrating interns. These includes creating a supportive  
9 work environment with fair compensation, professional development opportunities, and adequate resources to  
10 retain interns in the country. It also highlights the significance of addressing mistreatment and bullying in the  
11 workplace. Collaboration between healthcare organizations, policy reforms, and increased healthcare financing  
12 are suggested as potential strategies to mitigate the brain drain and ensure a sustainable healthcare system in  
13 Nigeria. Improving internship conditions and addressing the shortcomings of managing the COVID-19 pandemic  
14 are essential to retaining Nigerian doctors and combatting physician emigration. This requires a coordinated  
15 effort from healthcare systems, policymakers, and stakeholders.

16

17 **Key Words:** *Job satisfaction, Internship and Residency, Nigeria, Career Choice, Emigration and Immigration*  
18 (Source: MeSH-NLM).

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## 1 INTRODUCTION.

2 Access to healthcare is a fundamental human right. However, Nigeria, among other under-resourced  
3 countries, continues to grapple with healthcare infrastructure and personnel challenges, making it difficult to  
4 achieve the Sustainable Development Goal (SDG) of universal health for all by 2030.<sup>1</sup> The low doctor-to-  
5 patient ratio in Nigeria is one of the factors contributing to inadequate healthcare access, which affects 63% of  
6 Nigerians.<sup>1</sup> This situation is worsened by a decreased interest in specialist training among interns, leading to  
7 healthcare worker shortages.<sup>2</sup> Additionally, many interns choose not to pursue medicine after completing their  
8 internships and show a growing preference to emigrate to developed countries.<sup>2,3</sup>

9  
10 Nigerian doctors have various career options, including clinical practice, academia, research, medical  
11 advisory, medical entrepreneurship, and nonclinical pursuits.<sup>4</sup> During the compulsory one-year internship after  
12 graduation, they serve as first-contact physicians under supervision and decide on their career trajectories.<sup>2,4</sup>  
13 Several studies have explored the factors influencing interns' specialty preferences to foster equitable  
14 distribution across clinical expertise.<sup>2</sup>

15  
16 International studies have highlighted the impact of internship experiences on career aspirations and  
17 emigration decisions.<sup>3</sup> They underscore why addressing the brain drain requires a critical focus on internships,  
18 a period where future specialists are nurtured and pivotal career decisions are made.<sup>2,3</sup> A recent study by  
19 Akinwunmi et al. revealed that 79.5% of interns intended to pursue medical practice in foreign nations, and  
20 over 41% planned to migrate within two years.<sup>5</sup> This coincides with the duration required to conclude their  
21 internship training and Nigeria's one-year compulsory National Youth Service Scheme.<sup>5</sup> The Nigerian Medical  
22 Association reported that 727 medical doctors trained in Nigeria relocated to the UK within six months  
23 between December 2021 and May 2022, while 5600 doctors migrated over eight years. Unfortunately, this  
24 trend is projected to exacerbate in the coming years, as medical stakeholders and the Nigerian Medical  
25 Students Association (NiMSA) have opposed a bill that would mandate Nigerian-trained medical and dental  
26 practitioners to practice in Nigeria for a minimum of five years before being granted a full license to migrate  
27 abroad.<sup>6</sup> The Students' body has advised lawmakers to create a conducive environment and improve  
28 remuneration rather than enforcing laws that infringe on fundamental human rights and discourage  
29 prospective medical students.<sup>6</sup>

### 31 **Negative Experiences of Interns**

32 Adverse experiences during internships can profoundly impact doctors' personal and professional lives,  
33 making emigration more attractive.<sup>2,3</sup> The negative experiences that favour emigration are classified as push  
34 factors and summarized in Table 1. Interns often experience excessive workload and burnout due to long  
35 hours, understaffing, limited resources, and being delegated to perform non-core duties.<sup>3</sup> These experiences  
36 can lead to physical and mental exhaustion, decreased quality of life, and loss of empathy and  
37 depersonalization.<sup>3</sup> Nigeria's economic challenges have also led to increased financial constraints for doctors,  
38 making basic needs and support unaffordable.<sup>1,2</sup>

39  
40 Early career doctors in Nigeria cite a lack of professional development and growth opportunities, a challenging  
41 work environment, and limited access to necessary equipment and support systems as reasons for migrating.<sup>2</sup>

1 This trend contributes to brain drain and negatively impacts Nigeria's healthcare system.<sup>2</sup> The mistreatment of  
2 younger doctors has been reported as having severe consequences on their emotional well-being, job  
3 satisfaction, and professional development.<sup>7</sup> These can include verbal abuse, humiliation, intimidation, and  
4 excessive criticism, eroding their self-esteem and confidence.<sup>7</sup> The impact might be more pronounced in  
5 Interns due to their early career stage and lack of experience, leading to powerlessness and frustration.  
6 Mistreatment and bullying also increase the risk of workplace violence against doctors, as public humiliation  
7 devalues the physician before patients, caregivers and allied health workers.<sup>7</sup> Unsurprisingly, such  
8 experiences, especially when severe, would naturally drive doctors to seek opportunities that offer a more  
9 respectful, supportive, and enabling environment, often in other countries.<sup>1,4,7</sup> These multifarious challenges  
10 discourage Nigerian doctors in the diaspora who are willing to return.

### 11 **Justification for Targeting the Realities of Interns**

12 The career choices of young interns significantly impact the healthcare system of Nigeria. This factor plays a  
13 crucial role in determining the distribution of specialized services and the replacement of retiring healthcare  
14 professionals.<sup>4</sup> Currently, nearly 50% of Nigerian doctors practice abroad, resulting in a considerable forfeiture  
15 in medical education investment, with the lost practice years having a multiplier effect.<sup>1</sup> Nigeria was among  
16 the nine countries that, as a group, lost two billion dollars between 2010 and 2017 due to brain drain.<sup>1</sup>

17  
18  
19 It has been observed that Nigerian interns often migrate to Western countries, such as the United Kingdom,  
20 the United States of America, and Canada, in search of better job opportunities, remuneration, and working  
21 conditions.<sup>5,8</sup> Another reason is the promise of better job security and health insurance coverage.<sup>9</sup> However,  
22 recent studies have shown a growing interest among Nigerian medical doctors seeking job opportunities in  
23 Middle Eastern countries, such as Saudi Arabia, Qatar, and Oman.<sup>10</sup> Moreover, specialized surgical fields  
24 have become increasingly popular among Nigerian medical practitioners in these destination countries.<sup>2</sup> The  
25 countries where Nigerian medical doctors have shown interest have a defined doctor-to-patient ratio,  
26 significantly reducing the likelihood of physician burnout, which is a significant reason for medical interns'  
27 migration, particularly after the internship year experience.<sup>10</sup> 4 Furthermore, these countries share leadership  
28 that supports and regulates universal healthcare, backed by efficient government funding and a robust  
29 national health insurance scheme.<sup>3</sup> These countries also have cutting-edge research institutions, an efficient  
30 nationalized health information system, and a preventive medicine approach that has influenced this trend.<sup>3</sup>  
31 This combination of factors has made these countries an attractive destination for Nigerian medical  
32 professionals seeking better opportunities.

33  
34 Given the substantial impact of interns' career choices on the healthcare system of Nigeria, it is justifiable to  
35 implement talent retention strategies that focus on interns. This approach maximizes the return on investment  
36 in medical education, ensures workforce stability, and secures future healthcare needs.<sup>1,3,4</sup> Improving  
37 internship conditions would also attract foreign-trained doctors to return for their housemanship, boosting the  
38 local workforce and increasing the likelihood of their retention.<sup>1</sup> Addressing their concerns and providing  
39 mentorships that support their growth would foster their commitment to the country's health system. Younger  
40 doctors are more adaptable to changing clinical landscapes, which is advantageous. Therefore, it is essential

1 to address their concerns and provide mentorship that supports their growth to foster their commitment to the  
2 country's health system.

#### 4 **Impact of COVID-19 Pandemic on Interns.**

5 The COVID-19 pandemic has had a significant impact on the healthcare system of Nigeria, with essential health  
6 workers, particularly doctors, being among the hardest hit. In the first week of the pandemic alone,  
7 approximately 20 doctors in Nigeria succumbed to COVID-19 complications, underscoring the devastating effect  
8 of the pandemic on the country's healthcare workforce.<sup>11</sup> . Before the pandemic, Nigeria's healthcare system  
9 was already fragile, and the pandemic exacerbated the situation. While no specific data links the continuous  
10 surge in internal migration to the COVID-19 pandemic, we speculate that the shift could be attributed to the  
11 unfavorable experiences many healthcare workers endured, such as shortages of personal protective  
12 equipment, limited screening services, and poor hazard allowances.<sup>11</sup> The lack of commitment to protecting  
13 doctors encouraged intern migration due to inadequate hazard allowances below \$14, which is insufficient to  
14 cover treatment for potential COVID-19 cases.<sup>12</sup> Furthermore, the pandemic led to a shortage of essential  
15 healthcare workers, thereby increasing the burden on the few available and contributing to the migration  
16 intentions of healthcare professionals within and outside the country.

#### 18 **Addressing the Challenges**

19 To retain Nigerian doctors, healthcare systems and policymakers must prioritize creating a work environment  
20 that fosters job satisfaction, fair compensation, and professional growth.<sup>2,3</sup> Table 1 summarizes  
21 recommendations to address this challenge.

23 To combat physician emigration, it is crucial to consider implementing policies and pull factors similar to those  
24 of destination countries, as outlined in Table 1. Additionally, it is essential to identify and address any  
25 shortcomings in managing the COVID-19 pandemic to improve physician retention in the local healthcare  
26 system. To achieve this, the Nigerian Medical Association (NMA), Nigerian Association of Resident Doctors  
27 (NARD), Medical and Dental Council of Nigeria (MDCN), Federal Ministry of Health (FMoH), Federal and  
28 State Governments, and Postgraduate Medical Colleges must work together.

30 These stakeholders should prioritize improving remuneration to reflect current economic realities, overhauling  
31 the medical curricula, and increasing the number of research institutions and laboratories.<sup>4</sup> . In addition;  
32 stakeholders can explore ways to align the postgraduate academic and fellowship routes to create a more  
33 seamless and effective transition for individuals pursuing higher education and professional development and  
34 to help increase career options for doctors.<sup>4</sup> A balanced rotation through all specialties has been suggested to  
35 help with the equitable distribution of specialties.<sup>2</sup>

37 Addressing mistreatment and bullying, implementing anti-bullying policies, and fostering a positive work  
38 environment can improve doctors' well-being and career satisfaction.<sup>7</sup> The MDCN must also enforce the Code  
39 of Medical Ethics (COME) to discipline errant medical seniors who abuse their status in the workplace.

1 It is worth noting that Nigeria has yet to dedicate at least 15% of the annual national budget to healthcare.<sup>1</sup>  
2 Most systemic challenges bedeviling healthcare can be solved through increased healthcare financing,  
3 enhanced healthcare insurance coverage, efficient distribution of resources, and elimination of bureaucratic  
4 bottlenecks and corruption. These measures will ensure that healthcare systems remain sustainable, doctors  
5 are retained, and patients receive the best care.<sup>1,4</sup>

6

## 7 **Conclusion**

8 To establish sustainable healthcare in Africa's most populous country, increasing the number and distribution  
9 of doctors, specialist providers, and clinical researchers is imperative. To achieve this, evaluating career  
10 preferences and their determinants, like internship experience, can be a significant step in addressing the issue  
11 of brain drain and physician shortages. This assessment would enable stakeholders in the Ministry of Health  
12 and healthcare administrators to influence the career choices of interns, which, in turn, would benefit the local  
13 population and reduce economic losses from brain drain, thereby contributing towards establishing a robust  
14 healthcare system.

15

## 16 **SUMMARY - ACCELERATING TRANSLATION**

17 In this article titled "Mitigating Physician Emigration in Nigeria by Improving the Internship Experience," we argue  
18 for the significance of positively influencing interns' experiences to address the issue of physician emigration in  
19 Nigeria. The negative experiences faced by interns, including excessive workload, burnout, inadequate  
20 remuneration, lack of professional development opportunities, mistreatment, and bullying, contribute  
21 significantly to their desire to emigrate. Therefore, we propose implementing strategies to create a supportive  
22 work environment that offers fair compensation, opportunities for professional growth, and access to necessary  
23 resources, along with addressing mistreatment and bullying, improving salaries, overhauling medical curricula,  
24 and enforcing the Code of Medical Ethics. By prioritizing the needs of interns, stakeholders can influence their  
25 career choices and increase the likelihood of retaining them within the Nigerian healthcare system, reducing the  
26 brain drain and addressing physician shortages. Additionally, it is crucial to increase healthcare financing,  
27 improve health insurance coverage, and eliminate bureaucratic bottlenecks and corruption to improve the  
28 healthcare system and retain doctors in Nigeria.



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1 **TABLE**  
2 **Table 1: Push and Pull Factors Influencing Physician from Selected Studies Emigration and**  
3 **Recommendation.**  
4

Paper	Push Factors	Pull Factors	Negative experiences during the internship	Recommendations
Ikhide E. <sup>1</sup>	<ul style="list-style-type: none"> <li>-Poor salaries</li> <li>-Working conditions</li> <li>-Inadequate medical facilities</li> <li>-Poor infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>-Better working conditions</li> <li>-Prospects of higher salaries</li> <li>-Prospects of higher quality of life</li> </ul>	-----	<ul style="list-style-type: none"> <li>-Legislative collaboration to fulfill 15% threshold of the National budget for health</li> <li>-Increased health expenditure</li> <li>-Proper implementation of extant regulations guiding terms of service of doctors under government scholarships/</li> </ul>
Ezeike C.et al. <sup>2</sup>	<ul style="list-style-type: none"> <li>-Better pay</li> <li>-Better working conditions</li> <li>-To acquire skills</li> <li>-Better living conditions</li> <li>-Dwindling economic prospects of the country</li> <li>-Declining standard of medical education</li> </ul>	<ul style="list-style-type: none"> <li>-Improvement in working experiences</li> <li>-Improvement in working conditions</li> </ul>	-----	<ul style="list-style-type: none"> <li>-Improvement in working conditions</li> <li>-Early career guidance</li> <li>-Balanced exposure to all specialties</li> </ul>
Cronin et al. <sup>3</sup>	<ul style="list-style-type: none"> <li>-Burnout(emotional exhaustion)</li> <li>-Depersonalization</li> <li>-Negative perception of training</li> <li>-Negative experience as an intern</li> <li>-Opportunities for better training abroad</li> <li>-Poor supervision of postgraduate training schemes</li> </ul>	<ul style="list-style-type: none"> <li>-Positive perception of training</li> <li>-Choice/ desire to specialize</li> <li>-Age (Older interns)</li> <li>-Graduate entry doctors(those who did medicine as a second degree)</li> </ul>	<ul style="list-style-type: none"> <li>-Low staffing levels</li> <li>-High non-core task allocation</li> <li>-Poor mentoring supports during training</li> <li>-Poor level of supervision during internship</li> <li>-Poor level of preparedness on starting work as an intern</li> </ul>	<ul style="list-style-type: none"> <li>-Reduction of non-core task allocation</li> <li>-Improvement in staffing levels</li> <li>-Improvement of working conditions</li> <li>-Improvement in the reputation of the country's health system as a destination choice</li> </ul>

	<ul style="list-style-type: none"> <li>-Preference for foreign-trained specialist</li> <li>-Lengthy specialty training</li> <li>-Unpredictable training pathways and duration</li> <li>-Better opportunities for work-life balance abroad.</li> </ul>		<ul style="list-style-type: none"> <li>-High levels of stress in the working environment</li> <li>-High level of bullying in the workplace</li> </ul>	
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