



Original Article

An Evaluation of Push and Pull Factors associated with the Emigration of Medical Consultants from Nigeria

***Iro Enameguolo Yarhere¹, Mohammed Adeboye²**

¹Department of Paediatrics, College of Health Sciences, University of Port Harcourt, Port Harcourt, Nigeria and Secretary, Medical Education, Committee of the Medical and Dental Consultants Association of Nigeria.

²Department of Paediatrics, College of Health Sciences, University of Ilorin, and Chairman, Medical Education committee of the Medical and Dental Consultants Association of Nigeria.

Abstract

Background: The health workforce of a nation is crucial to its economic productivity and development. In Nigeria, the emigration of healthcare professionals from the country has become alarming and is fueled by various factors. This study thus determined to study the push and pull factors encouraging the emigration of medical consultants from Nigeria as well as their perceptions of what can be done to retain Nigeria's health workforce in the country.

Methodology: An online survey of 238 consultants (fellows) of the West Africa College of Physicians, West Africa College of Surgeons, and the National Postgraduate Medical College of Nigeria under the auspices of the Medical and Dental Consultants Association of Nigeria (MDCAN) was conducted. A structured questionnaire was used as the instrument for data collection. The data were analyzed using the Statistical Package for Social Sciences (SPSS) version 23.

Results: Push factors promoting the emigration of doctors identified in this study included the occurrence of armed conflict (66.0%), the inadequacy of job opportunities (69.7%), poor remuneration (69.7%) as well as the need to improve professional skills (82.4%). Pull factors supporting the emigration of the doctors included the need for better prospects for their professional practice (65.1%) and their children (84.9%), better remuneration (87.4%), and the assurance of better security (76.1%). Availability of incentives (82.4%), as well as improved security (85.3%) among other factors, were identified as being effective in retaining Nigeria's health workforce.

Conclusion: The problem of doctors' emigration from Nigeria persists and is fueled by various factors that need to be addressed urgently for improving the retention of the country's health workforce. It is recommended that a holistic approach confronting issues of training, availability of an enabling environment as well as the professional progression of doctors be adopted in tackling this emigration problem.

Keywords: Doctors; Emigration; Push and Pull Factors; Nigeria.

Corresponding Author: *Iro E. Yarhere, Department of Paediatrics, College of Health Sciences, University of Port Harcourt. iro.yarhere@uniport.edu.ng

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Introduction

The World Health Organization has reported that an imbalanced geographical distribution of healthcare workers is a problem affecting the availability of healthcare manpower necessary for the provision of healthcare services⁽¹⁾. It has been estimated that at least one million healthcare providers are required to meet the healthcare manpower needs of sub-Saharan Africa⁽²⁾. In 2006, as many as 36 sub-Saharan countries were identified as not having enough healthcare professionals and thus had a critical shortage of this essential human resource⁽³⁾. As the years went by, physician emigration from sub-Saharan Africa (SSA) countries including Nigeria gained momentum and contributed to this problem thus creating disturbing trends⁽⁴⁾.

The emigration of medical doctors from developing countries to more developed countries has become a common phenomenon and is known as the “physician brain drain”. Even though it yields personal benefits to the physicians involved, it possesses resultant negative consequences on the health systems and economic development of the countries where they are migrating⁽⁵⁾. In Nigeria, this problem of migration and brain drain has continued for years, with resultant adverse economic and development consequences considering the unabated loss of highly educated and skilled professionals in various fields and specialties⁽⁶⁾.

Despite the poor doctor–patient ratio in Nigeria which lies far below the recommended standard stipulated by the World Health Organization of 1:600 of the population⁽⁷⁾, Nigerian doctors have been reported to contribute a significant proportion of the medical workforce in countries around the world^(4,5). This in tandem with issues of poor funding of the health sector (which went to as low as 4.2% of the total budget in 2019 as against the recommended minimum of 15%), has resulted in negative consequences, evidenced by the presence of poor health indicators, and a poor ranking of the health-care system compared with other nations of the world^(5,8).

Empirically speaking, as much as 79.5% and 70.6% of doctors undergoing internship and residency training respectively in public tertiary hospitals in Ekiti State in Nigeria were found to have the intention to migrate abroad to practice as at the year 2022. Seventy percent of these doctors had already started working on the implementation of their intentions to emigrate⁽⁹⁾. In another study conducted in University College Hospital, Ibadan, up to 57.4% of resident doctors working there, had emigration intentions. These were fueled by pull factors such as better working and living conditions, higher remuneration and the improved prospects for career advancement. Family ties was however identified as the greatest factor that however deterred the resident doctors from emigrating⁽⁷⁾. Certain push factors have also been reported to promote the emigration of Nigerian physicians from the country to more developed countries. These have been shown to include inadequate income, inadequate working and living conditions, as well as insufficient opportunities for advanced and specialty training⁽¹⁰⁾. Other reasons have been reported to include the rising problems of insecurity in Nigeria and inadequacy of diagnostic equipment in health facilities⁽⁴⁾.

The problem of medical migration from Nigeria is one that has grown in magnitude over the years and has recently become a source of public health concern in the country⁽⁹⁾. Evidence on the various push and pull factors contributing to this emigration of doctors from Nigeria has been provided in individual states across Nigeria over the years^(4,7,10). There is still however the need for current evidence showing the magnitude of this problem and factors that could be contributing to it among the health care populace. There is also the need to identify the perceptions of doctors on what could be done to reduce this emigration and promote the retention of the health workforce of Nigeria, in Nigeria where they are largely needed. This study thus set out to identify the various push and pull factors promoting the emigration of doctors from Nigeria as well as their perceptions of what can be done to retain this vital workforce in Nigeria.

Materials and Methods

This study utilized the descriptive design in achieving its aim, using an online survey of 238 consultants (fellows) of the West Africa College of Physicians, West Africa College of Surgeons, and the National Postgraduate Medical College of Nigeria under the auspices of the Medical and Dental Consultants’

Yarhere IE - Factors Associated with the Emigration of Medical Consultants from Nigeria Association of Nigeria (MDCAN). A structured questionnaire was used as the instrument for data collection and was developed by the authors based on their clinical and administrative experience as doctors. The instrument was sent to the study participants via an online link to Google forms and basically addressed the study aim of assessing push and pull factors of doctors' emigration from Nigeria. It also addressed issues bordering on the retention of these doctors. The push factors were stated as conditions that make doctors want to leave their practices to other countries, which include, poor remunerations, insecurity and insurgencies, poor working condition, unavailability of materials to improve skills. The pull factors were described as conditions in the emigrating countries that favour doctors moving there and these included economic indices, better security (social and territorial), family factors (children's education), and improved working conditions.

The instrument also elicited their demographic characteristics, and the responses were provided on a Likert scale (scoring 1 to 5). Participation in the survey was anonymous and was preceded by each participant signing an online informed consent form. The data was retrieved from the Google forms database and exported to the Statistical Package for Social Sciences (SPSS) version 23 for statistical analyses.

Results

In this study, it was identified that most of the respondents (medical consultants) had practiced for more than ten years post receiving their fellowship 114 (47.9%), were currently employed in university and tertiary hospitals 167 (70.2%) and the greatest proportion of the respondents were from the South-South geopolitical zone of the Country 67 (28.3%). Majority of respondents were also identified to be from medicine-related specialties 132 (55.5%), and only 37 (15.5%) possessed medical education training with certifications. These details are shown in Table 1.

Table 1: Socio-demographic characteristics of respondents

Variables	Frequency (n=238)	Percentage (%)
Years practicing post Fellowship		
• <5	63	26.5
• 5-10	60	25.2
• >10	114	47.9
• No response	1	0.4
Current employment status		
• University and tertiary Hospitals	167	70.2
• Tertiary or Secondary Govt-owned Hospital	67	28.2
• University and private hospital	1	0.4
• Federal/State Agencies (MDAs)	2	0.8
• No response	1	0.4
Specialty		
• Dental surgery	13	5.5
• Medical	132	55.5
• Surgical	93	39.1

Assessment of the push factors that were perceived by the respondents to contribute to migration of doctors from Nigeria revealed that most of the respondents perceived these factors to a great extent to include armed conflict issues 157 (66.0%), the lack of job opportunities 166 (69.7%) as well as the need to improve professional skills 196 (82.4%). Other push factors perceived to a great extent by the respondent's included dissatisfaction with living conditions 207 (87.0%), poor remuneration 166 (69.7%), the non-availability of

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 medical equipment 115 (48.3%) as well as the need for better and faster career progression 184 (77.3%),
 table 2.

Table 2: Push factors causing migration from Nigeria.

Push factors	Frequency (n=238)	Percentage (%)
Armed conflict (socio-political)		
• To a great extent	157	66.0
• Neutral (won't be considered if properly managed)	56	23.5
• Not a consideration	22	9.2
• No response	3	1.3
Lack of job opportunities (economic)		
• To a great extent	166	69.7
• Neutral (won't be considered if properly managed)	62	26.1
• Not a consideration	7	2.9
• No response	3	1.3
Improving professional skills (professional)		
• To a great extent	196	82.4
• Neutral (won't be considered if properly managed)	37	15.5
• Not a consideration	3	1.3
• No response	2	0.8
Dissatisfaction with living conditions (financial gains)		
• To a great extent	207	87.0
• Neutral (won't be considered if properly managed)	28	11.8
• Not a consideration	2	0.8
• No response	1	0.4
Poor remuneration		
• To a great extent	166	69.7
• Neutral (won't be considered if properly managed)	68	28.6
• Not a consideration	3	1.3
Non-availability of medical equipment		
• To a great extent	115	48.3
• Neutral (won't be considered if properly managed)	89	37.4
• Not a consideration	29	12.2
Better and faster career progression		
• To a great extent	184	77.3
• Neutral (won't be considered if properly managed)	44	18.5
• Not a consideration	10	4.2

Certain pull factors have also been perceived by the study respondents to cause the migration of doctors from Nigeria to a great extent. These included the need for better future and prospects for their children 202 (84.9%), better remuneration in comparison to what is being received in the home country 208 (87.4%), the

Yarhere IE - Factors Associated with the Emigration of Medical Consultants from Nigeria assurance of better security 181 (76.1%) as well as the professional satisfaction derived from working in ‘saner’ systems 155 (65.1%), table 3.

Table 3: Pull factors that could cause migration of doctors from Nigeria.

Pull factors	Frequency (n=238)	Percentage (%)
Better future and prospects for children (socio-economic)		
• To a great extent	202	84.9
• Neutral (won't be considered if properly managed)	30	12.6
• Not a consideration	4	1.7
• No response	2	0.8
Better remuneration in comparison to home Country		
• To a great extent	208	87.4
• Neutral (won't be considered if properly managed)	24	10.1
• Not a consideration	5	2.1
• No response	1	0.4
Better security (social, armed, food)		
• To a great extent	181	76.1
• Neutral (won't be considered if properly managed)	47	19.7
• Not a consideration	10	4.2
Professional satisfaction working in ‘saner’ system		
• To a great extent	155	65.1
• Neutral (won't be considered if properly managed)	3	1.3
• Not a consideration	80	33.6

Assessment of the respondents’ perception of the factors important in keeping the medical workforce in Nigeria showed that individual or personal factors 127 (53.4%), factors relating to national and international context and migration 132 (55.5%) as well as career-progression related factors 201 (84.5%), were essential factors that were important in retaining the doctors’ workforce in Nigeria. Other factors that were perceived to be essential in keeping doctors and trainers in the Country included work-related factors such as working conditions and organizational environment 169 (71.0%) as well as community, local environment, and local living conditions 115 (48.3%). Others included factors were related with staying back to train family members 181 (76.1%), as well as factors bordering on financial incentives availability 195 (81.9%). These details are shown in Tables 4 and 5.

Table 4: Perceptions of respondents on factors important in keeping Doctors and Trainers workforce in Nigeria.

To what degree are these factors important in retaining doctors' workforce	Frequency (n=238)	Percentage (%)
Individual or personal factors		
• Essential	127	53.4
• Important	89	37.4
• Less important	19	8.0
• Not important and can be omitted	1	0.4
• No response	2	0.8
National and International context and migration		
• Essential	132	55.5
• Important	87	36.6
• Less important	15	6.3
• No response	4	1.7
Career-progression-related		
• Essential	201	84.5
• Important	35	14.7
• Less important	1	0.4
• Not important and can be omitted	1	0.4
Work-related factors such as working conditions and organizational environment		
• Essential	169	71.0
• Important	64	26.9
• Less important	3	1.3
• Not important and can be omitted	2	0.8
Community, local environment, and local living conditions		
• Essential	115	48.3
• Important	77	32.4
• Less important	32	13.4
• Not important and can be omitted	14	5.9

Table 5: Perceptions of respondents on factors important in keeping Doctors and Trainers workforce in Nigeria.

To what degree are these factors important in retaining doctors' workforce	Frequency (n=238)	Percentage (%)
Incentive for immediate family members (stay back to train family members)		
• Essential	181	76.1
• Important	45	18.9
• Less important	7	2.9
• Not important and can be omitted	1	0.4
• No response	4	1.7
Financial incentives		
• Essential	195	81.9
• Important	8	3.4
• Less important	33	13.9
• No response	2	0.8

In this study, the perceptions of the respondents regarding various recommendations for keeping doctors' workforce in Nigeria were assessed. Most of the respondents 182 (76.5%) were agreeable to the recommendation of making take-home salary inflation-proof, 145 (60.9%) were agreeable to the recommendation of providing reduced interest loans for personal housing for doctors. Other recommendations which most of the respondents were agreeable to included providing compulsory rural area services with better incentives for doctors 196 (82.4%), additional research grants' income for doctors 210 (88.2%), ensuring community and national safety and security 203 (85.3%) and criminalizing un-referred medical tourism 185 (77.7%). 95 (35.9%) of the respondents were also agreeable to the recommendation of improving electricity supply as a way of keeping the doctors' workforce in Nigeria. These details are shown in Table 6.

Table 6: Perceptions of respondents on recommendations for keeping doctors' workforce in Nigeria.

How agreeable are you to the following recommendations for keeping doctors' workforce in Nigeria	Frequency (n=238)	Percentage (%)
Making take-home salary inflation-proof		
• Agreeable	182	76.5
• Neutral	45	18.9
• Less agreeable	10	4.2
• No response	1	0.4
Reduced interest loans for personal housing		
• Agreeable	145	60.9
• Neutral	58	24.4
• Less agreeable	35	14.7
Compulsory rural area services with better incentives		
• Agreeable	196	82.4
• Neutral	35	14.7
• Less agreeable	6	2.5
• No response	1	0.4
Additional research grants' income		

• Agreeable	210	88.2
• Neutral	22	9.2
• Less agreeable	4	1.7
• No response	2	0.8
Community and National safety		
• Agreeable	203	85.3
• Neutral	28	11.8
• Less agreeable	5	2.1
• No response	2	0.8
Improved electricity		
• Agreeable	95	35.9
• Neutral	84	35.3
• Less agreeable	56	23.5
• No response	3	1.3
Criminalizing un-referred medical tourism		
• Agreeable	185	77.7
• Neutral	44	18.5
• Less agreeable	7	2.9
• No response	2	0.8

Discussion

In this study, certain push and pull factors were identified by study respondents as being contributory to the migration of doctors from Nigeria. The most selected push factors included the occurrence of armed conflict in certain parts of Nigeria, inadequacy of job opportunities as well as the need to improve professional skills. Others included the dissatisfaction with living conditions here in Nigeria, poor remuneration and non-availability of necessary medical equipment. These factors have also been identified by other authors whom have conducted research on the problems of emigration of the health workforce from Nigeria(5,6,10). Ramalan and Garba, pointed out that reasons for the emigration of medical doctors' workforce from Nigeria were mostly due to the problem of poor financial incentives/working environment of health care facilities, problems of insecurity, as well as the prevailing problem of inter professional rivalry in the medical sector in Nigeria(5). Another study with Nigeria as a focus also identified inadequate working and living conditions, problems of inadequate income, as well as insufficient opportunities for advanced and specialty training for career advancement as potent contributory factors for migration of doctors(10). As a complement to these push factors, the present study also identified certain pull factors that acted as contributory proponents of the emigration of doctors from Nigeria. These included the need for better prospects for their professional practice and their children, better remuneration and the assurance of better security. Other studies have also shown these pull factors as being capable of causing the emigration of doctors from Nigeria (4–6).

The implication of these findings is that despite the increasing population size of Nigeria, this problem further worsens the gross insufficiency in the availability of doctors to cater for the health care needs of the population(7). Having a reported doctor to population ratio of about 1:5000 as against the recommended standard stipulated by the World Health Organization of 1:600(7), this is a cause for concern and indeed an issue of public health importance in Nigeria(4). There is the need to address the various push factors of poor health care services, insecurity, poor remuneration and so on (6,8) for effective tackling of this problem. Evidence has shown that the stronger the institutional support for migration in an area, the stronger the evidence of a culture of migration (11). The institutional support for migration and the resultant 'culture of migration' alongside the wrong perception of gaining diaspora remittances that improves the Nigerian economy should be discouraged as much as possible(6). Available data from the World Bank in 2019 showed personal remittances received for Nigeria in 2017 as \$22.00 billion, which was about 5.86% the country's GDP. This remittance did not have any substantial impact on growth and development in the

Yarhere IE - Factors Associated with the Emigration of Medical Consultants from Nigeria country considering that the average transaction cost of sending the remittances home in that same year was 18.30% of the nation's GDP and a growth rate of 0.801% of the GDP in the same year(6).

University education in the country has been described as being an expensive social service involving catering for the needs of the large number of students and staff, funding research, providing necessary infrastructure and so on(12). There is thus the need for policies that introduce exit requirements for medical school graduates alongside promoting the course of medical education and health care services in the country. In practice, the availability of properly equipped training facilities, better treatment of resident doctors, justified workloads, improved remuneration, among other factors can be helpful in stemming the tide of the mass exodus of doctors (4,11,13). The problem of rising insecurity will also need to be effectively tackled if the required health care personnel including doctors would be encouraged to stay-back to provide services to the Nigerian populace(5).

The present study also showed the perception of the respondents on the factors considered by doctors as being important when making the decision to stay-back as part of the medical workforce in Nigeria. These included personal factors such as personal safety, ability to meet-up with the provision of necessary physiological, security and social needs; career-progression related factors in terms of availability of well-equipped training facilities, cordial working relationship between the trainer and the trainee and so on. Others included work-related factors such as working conditions and organizational environment; local living conditions, the need to be involved in training family members and factors bordering on financial incentives availability in the country. Studies have reported that motivating factors identified to promote health workers interest in working even in rural areas in Nigeria included the assurances of better working conditions, as well as the availability of effective and efficient support systems. Other motivators included the availability of opportunities for career development, proper resource allocation, provision of financial incentives as well as better living conditions and family support systems(3,14–16).

Respondents in the present study believed making the take-home salary of the doctor (and by extension all Nigerian workers) inflation-proof, as well as providing reduced interest loans for personal housing for doctors, could be effective in retaining the workforce of doctors in Nigeria. Other recommendations included improving incentives attached to rural area postings/services, providing additional research grants' to doctors for the conduct of research, as well as improving community and national safety and security. Criminalizing un-referred medical tourism alongside improving electricity supply in the country were also identified as factors that could be useful in retaining this crucial workforce in Nigeria. In times past, this emigration problem especially from low- and middle-income countries (LMICs) to high-income countries had moved the World Health Organization to formulate a Global Code of Practice on the International Recruitment of Health Personnel(4).One would thus be left to wonder if this 'Global Code' is still being observed in the face of the rising emigrations of health care personnel especially from Nigeria considering the adverse effects these emigrations are having on the provision of quality health care services to the Nigerian populace(9,17).

It is believed that this problem which has constituted a brain drain problem in Nigeria can be tackled by employing a holistic approach. This approach should encompass confronting the basic identified issues of training, providing an enabling environment for health care service provision as well as clear prospects for professional progression in the country. The approach should also involve addressing problems related with health governance and the Nigerian economy(18).

This study concludes by stating that the most selected push factors encouraging the emigration of doctors from Nigeria included the problem of armed conflict in certain parts of Nigeria, inadequacy of job opportunities, poor remuneration as well as the need to improve professional skills. Pull factors also promoted the emigration of the doctors from the country. The respondents perceived those assurances of better working conditions, improving incentives attached to rural area postings/services, and so on; were essential elements for retaining the physician workforce in the country. It is our recommendation that the

Yarhere IE - Factors Associated with the Emigration of Medical Consultants from Nigeria government of Nigeria improve the socioeconomic and political environment while also reducing armed conflict and terrorism to prevent further migration.

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