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ECONOMIC FACTORS AFFECTING THE INTENTION TO MIGRATE AMONG MEDICAL DOCTORS IN FEDERAL TERTIARY HEALTHCARE INSTITUTIONS IN SOUTHERN NIGERIA

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DOI: https://doi.org/10.5281/zenodo.13902646

Abstract: This study was conducted to assess the influence of economic factors on brain flight intention of medical doctors in federal tertiary healthcare institutions, south-south, Nigeria. This was premised on the fact that medical doctor are leaving the country at droves while others may be harboring the intention of leaving. Push-Pull theory was used in supporting this study. Survey research design was adapted. Population of the study was 2,337 medical doctors in the employ of the various tertiary healthcare institutions within the study area. Sample size was determined using Taro Yamene's formulae and it was given as 342. Proportionate formulae was employed to ensure that each institution under study was fairly represented. Data for the study was sourced from primary source involving structured questionnaire administered to the respondents in their respective offices. Data obtained were analyzed using descriptive and inferential involving percentages, mean, standard deviation, standardized coefficients, tstatistics and p-values. Results revealed that standard of living explains 3.7% of variance of brain flight and a standardized coefficient of β=0.629 with a p-value of 0.000. Rising wage gap explained 7.3% of variance of brain flight intent with a standardized coefficient of β=0.923 and p-value of 0.000. Conclusively, the heavy loss of healthcare professionals including the ones that intend to migrate, poses threat of collapsed healthcare services and major risks to the lives of Nigerians. This calls for intensive consultation and consensus building between the developing and developed countries. As recommendations, there is need to increase the funding of public healthcare sector to enable hospitals purchase necessary equipment and for improvement of doctors' welfare packages.

Keywords: Standard of living, Rising wage gap, Medical doctors, Brain Flight.

1.0 Introduction

Nigeria is increasingly losing highly skilled professionals in various sectors of the economy to developed countries owing to migration. In recent times, the rate of migration of Nigerian highly skilled workers is alarming

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and this in turn has created gaps in several sectors like the oil and gas, technological industry, and the most alarming gap appears within the healthcare sector (Anetoh & Onwudinjo, 2020). Atte (2020) noted that the World Health Organization (WHO) in 2016 reported a shortage of 4.3 million healthcare workers worldwide. Sub-Saharan countries (which Nigeria falls under) are the most affected by this shortage, given that they contain 3% of the world's health workers but are burdened by 24% of the global disease. Even with this reported shortage, there has been emigration in large numbers, out of Nigeria by healthcare practitioners to other countries. It is estimated that over two million Nigerians currently reside in the US, of which 20,000 are doctors and more than 10,000 are academics (Ogbu, 2019). This phenomenon is known as brain flight.

Brain flight, also known as brain drain or human capital flight is defined as the movement of highly skilled workers from one country to other countries in search of better standard of living, better quality of life, higher salaries, access to advanced technology and more stable political conditions. Interestingly, unlike actual brain drain, brain flight intent is not explicit. Intentions are statement about a specific behaviour of interest or a cognitive planned idea if provided the opportunity (Price, 2018). In the healthcare sector, this phenomenon create problems for source countries already struggling to cope with poor healthcare systems that barely meet local healthcare needs. Guzder (2007) reported that a quarter of all doctors practicing in the United States of America are foreign medical school graduates. Well over half (60%) of these are from low income countries, within Sub-Saharan Africa of which Nigeria is a part and contributes a sizeable proportion of this figure.

Doctors play significant role in human lives. The absolute first and last event of most human are both certified by doctors, in maternity and hospital. They make a difference by helping patients minimize pain, recover from a disease faster or learn to live with a disabling injury. A patient's ability to enjoy life, even if they cannot be cured, makes a huge difference to them and to their families. According to Spar (2017), a Medical doctor is a person with extensive knowledge in the domain of medical science, who applies and dedicates his/her knowledge to identify the medical problem faced by the patient and then uses their skill to prevent or cure it.

There is no doubt that in recent past, medical practice in Nigerian hospitals has evolved in scope and practice. Akbulut, Esatoglu & Yildirim (2010) opine that there is now a changing perception of the role of an all-round professional with administrative and managerial responsibilities. Contemporary doctors may have to take up responsibilities that include but are not limited to clinical, teaching, research, leadership, and managerial/administrative roles in their line of duty. This many tasks require some high level of performance to pull through successfully. According to the president of the Nigerian Medical Association during a press conference in 2021, of the 71,740 doctors trained in Nigeria (as of 2019), only 27,000 are currently practicing here. This means that there are more Nigerian doctors (62.4%) practicing abroad than there are (37.6%) practicing in Nigeria. One of the major cause of this phenomenon is economic antecedents. Economic antecedents has to do with better standard of living, higher wage, improved and standardized work tools which could enhance performance.

World Health Organization recommends 1:600 doctor to patient ratio. Currently, in Nigeria, the ratio of doctor per patient remains at 1:5,000 due to her ever growing population.

This implies that the country's medical personnel is overstretched in providing the needed healthcare services for the populace and handling emerging diseases. Equally, the emergence of Corona Virus Disease (COVID-19) led to most developed countries losing many of their healthcare providers. This unfortunate situation has affected the Nigerian medical doctors, thereby resulting in shortage of skilled and experienced personnel in this sector. This and many factors like; rising gap in wages, declining economic conditions, rising incidence of poverty and lack of transparency by government policy makers concerning healthcare practitioners. All these has brought about brain flight intention amongst medical doctors in Nigeria.

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Brain flight intention has a vast negative effect on the sourced country, yet there exist few empirical studies on such devastating phenomenon. Of the few empirical studies that considered the effect of brain flight intention on employees' job performance, to the best of the researcher's knowledge, none has been carried out to assess its effect on medical doctors' performance in a developing economy like Nigeria. Of course, it is not uncommon to observe that in most Nigerian public healthcare institutions (which federal tertiary healthcare institutions in south-south Nigeria are not exempted); certain policies, work procedures, management actions and inactions may compel medical doctors to organize and interpret their sensory impressions negatively about their workplace. These actions and inactions are expressed through; neglected health care system, insufficient provision of Personal Protective Equipment (PPE), poor funding, poor remuneration, under equipped facilities (especially before the outbreak of COVID-19 pandemic). This has led to incessant industrial actions or threats of strikes by medical doctors. Unfortunately, this may lead to dysfunctional work behaviour like dampened work morale, incessant tardiness and eventually, intention to migrate. These dysfunctional work behavior may lead to high death rate among patients in these hospitals.

Regrettably, Nigeria is one of the three leading African sources of foreign-born physicians according to World Health Organization. Brain drain phenomenon has led to a drastic reduction of highly skilled and experienced medical doctors and contribute to increased workload with low remuneration, and poor working conditions for the remaining workforce. This in turn, lowers the quality of care for the patients and increase bad health outcome for both the patients and remaining workforce (medical doctors). This may also influence the remaining work force to consider migrating to other counties with better working conditions or changing organization or industry for a better standard of living. Brain drain intention is a re-emerging issue that requires in-depth study. Sadly, there is not a huge body of research about how the government can help bring Nigerian medical doctors in the diaspora back home whilst discouraging the remaining workforce from seeking solace abroad. These issues necessitated this study.

1.1 Objective of the Study

The major objective of this study was to assess the influence of economic factors on brain flight intention of medical doctors in federal tertiary healthcare institutions, southsouth, Nigeria. The specific objectives include;

i. To examine how standard of living influences brain flight intention of medical doctors in federal tertiary healthcare institutions, south-south Nigeria.
ii. To assess the influence of rising wage gap on brain flight intention of medical doctors in federal tertiary healthcare institutions, south-south Nigeria.

1.2 Research Questions

The following research questions were formulated to aid this study;

i. How does standard of living influence brain flight intention of medical doctors in federal tertiary healthcare institutions, south-south Nigeria? ii. How does rising gap wage influence brain flight intention of medical doctors in federal tertiary healthcare institutions, south-south Nigeria?

1.3 Research Hypotheses

Hypotheses for this study were formulated in a null form as follows;

Ho_1: Standard of living has no significant influence on brain flight intention of medical doctors in federal tertiary healthcare institutions, south-south Nigeria

Ho_2: Rising wage gap has no significant influence on brain flight intention of medical doctors in federal tertiary healthcare institutions, south-south Nigeria

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2.0 Literature Review

2.1.1 Overview of Brain Flight and Brain flight Intention

The term brain flight, is also known as brain drain or human capital flight. It means large-scale movement or migration of top flight manpower from various developing countries
(Predominantly African countries) to more developed countries notably United States of
America, Canada, United Kingdom, Germany, France, Italy, Holland, New Zealand, United Arab Emirate, Australia, etc. As earlier stated, the major reason for this movement could be the quest for better opportunities. Similarly, the Longman Dictionary of Contemporary English defines brain drain as a movement of highly skilled or professional people from their own country to a country where they can earn more money. The thought process of actualizing this is known as Brain flight intention. Unlike actual brain drain, brain flight intention refers to the likelihood of highly skilled workers or professionals to migrate. With particular reference to the healthcare sector, Utile (2008) conceptualizes brain flight intention as the likelihood of highly trained and well experienced medical practitioners migrating from countries with poor conditions of service to those with better work conditions in search of greener pasture.

Intentions are a statement about a specific behaviour of interest. Studies have shown that brain drain is one of the most researched phenomena in advanced countries (Price, 2001). The broad range of brain drain studies is indicative of the significance and complexity of the issue. The phenomenon attracts interest due to its psychological dimension, its organizational significance, and its economic dimension. Thus, it is imperative for HRM managers to understand that there are several factors inherent to counter healthcare providers' brain drain intentions. Government invest a lot on their employees in way of recruitment, induction, their training and development, maintaining and retaining them within their institutions. As such, it is extremely crucial for government and administrators of healthcare sector to retain their employees within the organization and prevent them from leaving and going to work in other countries. There is a clear need to develop a better understanding of brain drain intentions and more specifically the sources that are key indicators of why healthcare providers leave the country which would then have a profound impact on the strategies that administrators can employ in order to reduce brain drain intention in the country.

Brain drain is common amongst such skilled personnel as medical doctors, pharmacists, nurses, medical laboratory scientists, industrial chemists, and pilots. Others are computer scientists, engineers, university lecturers, researchers, technologists and lawyers. The term brain drain originally referred to technological workers leaving a nation. Nowadays, its application or meaning has widened to include the migration of educated and professional people from one country, economic sector or field for another usually for better remuneration and/or living conditions (Merriam Webster Dictionary, 2010). Brain drain is usually considered an economic cost on the part of the releasing countries. This is because migrants usually take with them the fraction of value of their training sponsored by governments or other organizations. It could be likened to capital flight which refers to the same movement of financial capital. The opposite of brain drain is brain gain. Thus, whilst developing countries from which trained personnel are migrating are suffering from brain drain, developed nations are experiencing brain gain.

2.1.2 Economic factors

The economic conditions of African countries have been on the decline for decades (World Bank, 2011). This deteriorating state of affairs has adverse effects on the living standards and quality of life of Africans. The growing emigration of people from Africa to developed countries due to the deplorable economic climate in the source countries is attributable to this (Beine, Docquire, & Rapoport, 2008). Docquier (2006) opine that migration pressure has increased over the past years and is expected to intensify in the coming decades given the rising gap in wages and the differing demographic futures in developed and developing countries. The economic

condition in Nigeria have been on a steep decline especially from 2016. Among the regions classified as developing countries, sub-Saharan Africa's (which Nigeria falls under) economic performance is the poorest (World Bank, 2011). This rising incidence of poverty combined with unemployment partly accounts for the reason skilled workers migrate to the developed countries for better opportunities and better living conditions. Highly skilled workers, defined primarily as those with no less than a university degree, often seek to maximize return on their investment and training by moving in search of the highest paid and/or most rewarding employment (Iredale, 2009). The search for better living conditions, more favourable rewards for labour and the need to escape the harsh economic realities in the region partly account for the migration of skilled human capital to the developed countries, especially the Organization for Economic Co-operation Development (OECD).

2.1.3 Brain Drain Dilemma in Nigeria

Woldegiorgis (2017) in a study quoted the deputy executive secretary of the United Nations Economic Commission for Africa Dr. Lalla Ben Barka when she stated that it is the responsibility of the government of African countries to ensure that brains stay on the continent; if this does not happen, Africa will be short on brains 25 years from now. The situation of brain drain in Africa is so alarming that many African countries are starting to notice and delve deep into the root cause of the problem (Joshua *et al.,* 2014). Unfortunately, one of the countries riddled with the brain drain dilemma is Nigeria. Nigeria is the most populous country on the African continent. While it boasts of many natural resources, many of its citizens find themselves running to other countries for solace.

According to Transparency International Corruption Index (2020), Nigeria is ranked 149 out of 180 countries. Nigeria had a Corruption Perceptions Index (CPI) score of 25 in comparison to a country like Denmark which has the highest CPI score of 88 out of 100 and ranked number 1 with New Zealand on the 2020 corruption index. Unfortunately, the state of the country has made it unbearable for many people to continue to live in Nigeria and therefore an influx of migration to developed countries has happened. One of the problems brain drain causes in Nigeria is the loss of revenue that contributes to the GDP of the country. According to Joshua, Olanrewaju & Ebiri (2014), countries like Nigeria end up losing significant tax revenue due to migration of highly skilled workers. Consequently, the brain drain is causing a gap in the economic development of Nigeria.

2.2 Push-pull theory

This theory was first introduced by S. Ravenstein in 1889 and later reframed by L. Lee in 1966. In Ravenstein's (1889) initial discussion on the laws of migration, he sought to explain why people migrated from one country to another. Ravenstein pointed out that the land in the European countries under examination had been cultivated and every inch that could accommodate humans was populated. He stressed that migration occurs as a result of the development of business and industries in certain places or when people emigrate, and those gaps are filled by the new immigrants. Ravenstein noted that the migration pattern in Europe was vastly different from the migration pattern in North America. In Europe, migrants were a small fraction of the general population. In North America however, he noted that the majority of the migrant populated areas were within the city rather than rural areas and the migrant ratio to the population was much larger than the one in Europe. Lee (1966) further explored Ravenstein's (1889) research to form the push-pull theory. Lee asserted that while Ravenstein's theory is outdated, it still holds true as the starting point for researching migratory patterns. Lee summarized seven major points from Ravenstein's paper: (a) migration happens in short distances, (b) migration happens in stages, (c) migration happens in currents and counter currents, (d) urban-rural differences in propensity to migrate, (e) predominance of females among short distance, (f) technology and migration, and (g) dominance of the economic motive. Furthermore, Lee defined migration as a movement from one place to another. Distance was no longer a factor as Ravenstein initially expressed. In Lee's review, the factors that prompt migration fall under four headings: (a) factors associated with the area of origin, (b) factors associated with the area of

destination, (c) intervening obstacles, and (d) personal factors. In outlining those four factors, Lee reworked and created a more condensed version of Ravenstein's migration theory. Ravenstein and Lee both agreed that the factors that lead to migration include the attractiveness of the destination country due to various factors and dissatisfying factors from the source country.

For many Nigerians, physical barriers are not much of an issue. The technical, financial, and legal intervening obstacles are more prominent in Nigeria. Many of the healthcare practitioners that moved to developing countries spent a lot of money for the journey and also for courses they had to take to convert their Nigerian medical degree to follow the licensing regulations of the country they moved to. Strict immigration laws in countries like the United Kingdom and the United States also serve as a deterrent for many people that wanted to migrate. The last factors are personal factors. Personal factors are the primary cause of emigration from Nigeria. Unlike the other factors, potential migrants have control over personal factors. For example, healthcare practitioners leaving Nigeria hope for better lives for their family. The push-pull theory is very pivotal to the brain drain phenomenon because the push-pull factors are what help people determine what factors pushed them out of their developing country and what factors pulled them into a new country.

2.3 Empirical Review

Kamali, *et al*., (2020), the aim of the study was to determine the relationship between job satisfaction and the desire to emigrate among the nurses in Tehran. Survey research design was adopted for the study. As Methodology, the correlational study was performed on the nurses of public hospitals in Tehran. Random classified sampling technique was used to determine the hospitals. A research questionnaire was also used, which had three sections: demographic information, job satisfaction, and desire to emigrate. Pearson Product Moment Correlation statistical tool was used to analyze the study with the aid of SPSS software. Findings showed that the average level of the desire to emigrate was high (30.2). The job satisfaction of the participants was reported to be moderate. There was a significant negative correlation between job satisfaction and desire to emigrate ($p < 0.05$, $r = -0.24$). The correlation between job satisfaction aspects, including the job situation, job environment, salary and benefits, and social attitude to the nursing profession with the desire to emigrate, was also meaningful. However, there was not any statistical relationship between colleagues in the job environment and the job's effect on the personal life and the desire to emigrate. As conclusion, this study showed that the nurses had a high desire to emigrate. There was a significant relationship between the desire to emigrate and the job satisfaction of nurses. Increasing the satisfaction of different aspects of the job can prevent the educated and valuable members in the healthcare system from leaving the country.

Chandar, Jauhar, & Ghani, (2015) conducted a quantitative study to uncover the causes of brain drain among Malaysian professionals by examining the relationship between four independent variables (unattractive remuneration packages, poor opportunities for career growth, poor job satisfaction and poor quality of life) and the dependent variable (brain drain) by obtaining perceptions of Malaysian postgraduates studying in higher institutions in Malaysia. This is because postgraduates from the cluster of the highest education level in Malaysia could offer highly valued views. Malaysia's development has been plagued as this phenomenon has continuously robbed Malaysia's professionals' contribution, with 308,834 high skilled Malaysians migrated from Malaysia in year 2013. Survey research design was employed in the study. A total of 170 questionnaires were distributed through snowball sampling and convenience sampling to respondents; postgraduates studying in universities located in Penang and Kuala Lumpur. Several statistical techniques were applied in SPSS such as descriptive statistics, factor analysis, reliability analysis, correlation analysis and multiple regression analysis. Through multiple regression analysis, it was found that unattractive remuneration packages, poor opportunities for career growth and poor quality of life influences the emigration of highly skilled professionals in Malaysia.

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Shah and Jamal (2016) carried out a study in district Swat, with the sole aim of discovering the situational facts leading to brain drain. Survey research design was adopted for the study. A sample size of 300 respondents, who had permanent residence in Australia, US, and UK and who had random visiting to their families back at homeland were randomly selected. Independent variable lack of security and dependent variable brain drain was devised through developing certain questions on likert scale. Dependent and independent variables were indexed and cross tabulated and explained through the application of Chi square statistics. The study found that terrorism, kidnapping, fear of youth forced inclusion, poor laws, poverty, prolong legislative system are some of the pushing factors. The study further explored that all income groups were equally prone to lack of security. However, level of qualification did not yield any significant results with brain drain due to the insecure and fearful environment on the respondents at controlling income and education qualification at multi-variate level respectively. The study concluded that a militant culture was in prevalence to the presence of elements. Kidnapping rate was high and local youth had a tendency of getting militant. A local area has no proper job market, which led to a holistic movement of feeling the areas by the locals. Most of the people had the inclinations of moving around, this leading to brain drain. State of the art training for local law enforcing agencies, re-vibrating of local job market and the reawakening of cohesive and integrating cultural values were some of the recommendations in light of the study.

3.0 Methodology

The study adopted survey research design. This design was necessary since it aided the researcher to collect data directly from the respondents. Population of this study consists of 2,337 medical doctors in tertiary healthcare institutions in the south-south region of Nigeria.

The breakdown is as follows; University of Calabar Teaching Hospital:- Sessional consultants72, consultants-99, House officers-48, medical officers-22 Registrars-349. University of Uyo Teaching Hospital:- Consultants-42, Honorary consultants-65, Sectional consultants-8,

Medical officers-40, Registrars-300, House officers-60. University of Port Harcourt:- Consultants-72, Honorary consultants-121, House officers-48, Registrars-354. University of Benin Teaching Hospital:- Consultants-67, Honorary consultants-125, medical officers-39, House officers-49, Registrars-361. Federal Medical Center, Asaba:- Consultants-49, medical officers-16. Federal Medical Center, Yenegoa:- Consultants-25, medical officers-13. Summary is as shown in table 3.1

Table 3.1: Distribution of the Study Population

S/N	Tertiary Health Facility	No. of Medical Doctors
1	University of Calabar Teaching Hospital (UCTH)	**499**
2	University of Uyo Teaching Hospital (UUTH)	**515**
3	University of Port Harcourt Teaching Hospital (UPTH)	**595**
4	University of Benin Teaching Hospital (UBTH)	**641**
	Federal Medical Center,Asaba (FMCA)	**49**
	Federal Medical Center, Yenegoa (FMCY)	**38**

Source: Field Survey (2022)

These figures were gotten from the human resources department of the respective institutions as at August, 2021. Sample size for this study was gotten using Taro Yameni's formula for sample size determination which is given as:

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$$n = \frac{N}{N(e)^2}$$

Where

n = Sample size N = Population

e = Error term

With the formula with 5% margin of tolerable error, we derived our sample size thus:

$n = \frac{N}{N(e)^2} = \frac{2337}{1+2250(0.05)^2} = \frac{2337}{1+2250(0.0025)} = \frac{2337}{1+5.625}$

= 2250 = 341.5 ⟹ 342

Since the population is from more than one institution, we employ proportionate formulae given thus; $\frac{n \times Nh}{N}$

Where; n = Sample size

Nh = Population size of stratum

N = Total population

The results is as follows;

Respondents from UCTH	-	73
Respondents from UUTH	-	75
Respondents from UPTH	-	87
Respondents from UBTH	-	93
Respondents from FMCA	-	7
Respondents from FMCY	-	5

3.1 Sampling Technique and Data collection method

Convenience sampling technique was adopted for this study. This technique is necessary owing to the excessive cautions placed in most public places and hospitals when it has to do with establishing contacts, access to doctors are highly restricted except it is majorly for official purpose. The research instrument was a structured questionnaire which were administered to the respondents in their respective offices. Scoring of the research instrument was done using Likert Scale. In the questionnaire, the respondents responded by indicating their degree of agreement or disagreement to each statement by ticking along the column provided. Scoring of the questionnaire was graded as follows: Strongly agree (SA) - 5; Agree (A) – 4; Undecided (UN) – 3; Disagree (D) – 2; Strongly disagree (SD) – 1.

3.2 Method of Data Analysis

The descriptive and inferential statistics were used in the study. The descriptive statistics were percentage and frequency distribution tables which were used to capture respondents' demographic characteristics and frequency distribution of the responses on the study variables. Inferential statistics was used to assess the influence of the independent variables on the dependent variable. The simple analysis was the inferential statistics used. All hypotheses were tested at 0.05 level of significance. Statistical Package for Social Science (SPSS) version 24 was used to aid the analysis.

3.3 Model Specification and variables of study

The functional model for this study is given as;

$Y = f(X_1\ X_2)$ equation 1

Recoded to represent the variables it is presented

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Bi = f (Sl, Wg) equation 2

The simple linear regression model representing the influence of each of the independent variables (X_1 X_2 X_3) on the dependent variable (Y) is expressed in this form;

$Y = a_1 + b_1X_1 + \ldots.e$ equation 3

$Y = a_2 + b_2X_2 + \ldots.e$ equation 4

To represent the variables in use, the simple linear regression equations are presented thus;

$Bi = a_1 + b_1Sl + \ldots.e$ equation 5

$Bi = a_2 + b_2Wg + ...e$ equation 6

Where;

Bi (Y) = Brain flight intention

Sl (X_1) = Standard of living Wg (X_2) = Wage gap e = error term

a = constant

4.0 Data Presentation, Analysis and Interpretation

4.1 Analysis of Demographics of Respondents

Table 4.1: Summary of Questionnaire Administration and Collection

Questionnaire Administered	Collected	%
Total membership copies served	342	100
Total membership copies completed corrected	322	94.2
Total membership copies incorrectly filled	11	3.2
Total membership copies not returned	9	2.6

Source: Field Survey (2022)

As indicated in Table 4.1, a total of 342 copies of questionnaire were distributed, 322 copies representing 94.2% were returned in useable form to the researcher, 11 copies representing 3.2% were returned but not in useable form while a total of 9 copies were not returned. Consequently, since the number returned in useable form is higher than others, the response rate being greater than half, the researcher considered this response adequate representation of the sampled frame of the study. This 322 response therefore represent 100% of the instrument used in subsequent analysis of this study. In order words, the analyses done in this study are based on the responses obtained from these 322 respondents.

Table 4.2: Gender of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	female	88	27.3	27.3	27.3
	Male	234	72.7	72.7	100.0
	Total	322	100.0	100.0	

Source: Field Survey (2022)

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Table 4.2 indicates that 88 which represents 27.3% respondents were female while 234 representing 72.7 were male. This implies that there are more male medical doctors in the studied population than female medical doctors.

Table 4.3 Designate

	Frequency	Percent	Valid Percent	Cumulative Percent
Total	322	100.0	100.0	

Source: Field Survey (2022)

From Table 4.3, it shows that 15 doctors representing 4.7 respondents of the medical doctors were consultants, 14 representing 4.3% were sessional consultants, 21 representing 6.5% were honorary consultants. 105 which represents 32.6 were resident doctors, 95 representing 29.5% were medical officers while 72 representing 22.4% were house officers.

Table 4.4: Number of Years spent in the profession

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Below 2yrs	71	22.0	22.0	22.0
2-6yrs	59	18.3	18.3	40.4
7-11yrs	70	21.7	21.7	62.1
12-16yrs	66	20.5	20.5	82.6
17yrs above	56	17.4	17.4	100.0
Total	322	100.0	100.0	

Source: Field Survey (2022)

Table 4.4 shows that 71 doctors representing 22.0% of the medical doctors had spent below 2years in the profession, 59 representing 18.3% had spent between 2-6years. 70 representing 21.7 had spent between 7-11years, 66 representing 20.5% had spent 12-16years while 56 representing 17.4 had spent 17years and above. This means that majority of the respondents are doctors that have spent below 2years and 7-11years on the profession. 4.2 Analysis of Responses on Research Questions

Table 4.5: Responses on if practicing abroad will provide adequate insurance cover considering doctors' job hazard

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	1	.3	.3	.3
Disagree	16	5.0	5.0	5.3
Undecided	112	34.8	34.8	40.1
Agree	147	45.7	45.7	85.7
Strongly Agree	46	14.3	14.3	100.0
Total	322	100.0	100.0	

Source: Field Survey (2022)

Result showed that one (1) doctor representing 0.3% respondents strongly disagree that practicing abroad will provide doctors with adequate insurance. 16 representing 5.0% disagree, 112 representing 34.8% were

undecided, 147 representing 45.7% agree while 46 representing 14.3% strongly agree. The highest responds rate being 45.7% implies that practicing abroad will provide adequate insurance cover for doctors owing to their job hazards.

Table 4.6: Responses on if poor quality of life in Nigeria make doctors consider practicing abroad

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	16	5.0	5.0	5.0
	Undecided	127	39.4	39.4	44.4
	Agree	164	50.9	50.9	95.3
	Strongly Agree	15	4.7	4.7	100.0
Total		322	100.0	100.0	

Source: Field Survey (2022)

Table 4.6 indicates that 16 doctors representing 5.0% disagree that poor quality of life make doctors consider practicing abroad. 127 representing 39.4% were undecided, 164 representing 50.9% agree while 15 representing 4.7 strongly agree. The highest responds rate being 50.9% implies that medical doctors agree that poor quality of life makes them consider practicing abroad.

Table 4.7: Responses on if their family will be better off with them practicing abroad

		Frequency	Percent	Valid Percent	Cumulative Percent
Total		322	100.0	100.0	

Source: Field Survey (2022)

Findings revealed that 22 doctors which represents 6.8% strongly disagree that their families will be better if they were to practice abroad. 20 representing 6.2% disagree, 24 representing 7.5% were undecided, 138 representing 42.9% agree while 118 representing 36.6% strongly agree. From the highest responds rate being 42.9%, it shows that doctors' families will be better off if they were to practice abroad

Table 4.8: Responses on if they give consideration to the idea of practicing abroad because of low earning

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	.3	.3	.3
	Disagree	9	2.8	2.8	3.1
	Undecided	97	30.1	30.1	33.2

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Agree	158	49.1	49.1	82.3
Strongly Agree	57	17.7	17.7	100.0
Total	322	100.0	100.0	

Source: Field Survey (2022)

Result shows that 1 doctor which represents 0.3% strongly disagree that they do give consideration to the idea of practicing abroad because of low earning. 9 representing 2.8% disagree, 97 representing 30.1% were undecided, 158 representing 49.1% agree while 57 representing 17.7% strongly agree. The highest responds rate being 49.1% implies that medical doctors agree that they do give consideration to the idea of practicing abroad because of low earning.

Table 4.9: Responses on if they have better prospect for career advancement as a doctor abroad

Valid	Frequency	Percent	Percent	Cumulative Percent
Valid Strongly Disagree	2	.6	.6	.6
Disagree	9	2.8	2.8	3.4
Undecided	96	29.8	29.8	33.2
Agree	158	49.1	49.1	82.3
Strongly Agree	57	17.7	17.7	100.0
Total	322	100.0	100.0	

Source: Field Survey (2022)

Result depicts that 2 doctors representing 0.6% of the respondents strongly disagree that doctors have better prospect for career advancement if they were to practice abroad. 9 which represents 2.8% disagree, 96 representing 29.8% were undecided, 158 representing 49.1% agree while 57 representing 17.7% strongly agree.

Valid Strongly Disagree	2	.6	.6	.6
Disagree	15	4.7	4.7	5.3
Undecided	112	34.8	34.8	40.1
Agree	147	45.7	45.7	85.7
Strongly Agree	46	14.3	14.3	100.0

With the highest response rate being 49.1%, it implies that medical doctors feel they have better prospect to advance their career if they were to practice outside the country

Table 4.10: Responses on if they feel government does not value their contribution to the institution

Valid	Frequency	Percent	Percent	Cumulative Percent
Total	322	100.0	100.0	

Source: Field Survey (2022)

Finding depicts that 2 doctors representing 0.6% of the respondents strongly disagree that they feel government does not value their contribution to the institution. 15 representing 4.7% disagree, 112 representing 34.8% were undecided, 147 representing 45.7% agree while 46 representing 14.3% strongly agree. The highest responds rate being 45.7% depicts that medical doctors in Nigeria do not feel that government values their contributions to the institution.

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Table 4.11: Responses on if they consider practicing abroad because of high patients load

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	.3	.3	.3
	Disagree	4	1.2	1.2	1.6
	Undecided	116	36.0	36.0	37.6
	Agree	149	46.3	46.3	83.9
	Strongly Agree	52	16.1	16.1	100.0
	Total	322	100.0	100.0	

Source: Field Survey (2022)

Findings revealed that one (1) doctor representing 0.3% respondents strongly disagree that they consider practicing outside the country because of high patients load in Nigeria. 4 representing 1.2% disagree, 116 representing 36.0% were undecided, 149 representing 46.3% agree while 52 representing 16.1% strongly agree. The highest responds rate being 46.3% implies that medical doctors consider practicing outside the country because of high patient load in Nigeria.

Table 4.12: Responses on if long work hours in Nigeria make doctors consider moving abroad to practice

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	.6	.6	.6
	Disagree	15	4.7	4.7	5.3
	Undecided	126	39.1	39.1	44.4
	Agree	164	50.9	50.9	95.3
	Strongly Agree	15	4.7	4.7	100.0
Total		322	100.0	100.0	

Source: Field Survey (2022)

Result shows that 2 doctors representing 0.6% respondents strongly disagree that long work hours makes them consider practicing abroad. 15 representing 4.7% disagree, 126 representing 39.1% were undecided, 164 representing 50.9 agree while 15 representing 4.7% strongly agree. The highest responds rate being 50.9% implies that medical doctors agree that long work hours makes them consider moving abroad to practice.

Table 4.13: Responses on if they consider practicing abroad because of obsolete facilities here in Nigeria

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	.3	.3	.3
	Disagree	15	4.7	4.7	5.0
	Undecided	114	35.4	35.4	40.4
	Agree	146	45.3	45.3	85.7

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	Strongly Agree	46	14.3	14.3	100.0
Total	322	100.0	100.0		

Source: Field Survey (2022)

Finding depicts that one (1) doctor representing 0.3% of respondents strongly disagree that they consider practicing abroad because of obsolete facilities. 15 representing 4.7% disagree, 114 representing 35.4% were undecided, 146 representing 45.3% agree while 46 representing 14.3% strongly agree. The highest responds rate being 45.3% indicates that medical doctors agree that they consider practicing abroad because of obsolete facilities in Nigerian health institutions.

4.3 Hypotheses Testing

Regression Results for the Test of Hypothesis one

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.613[a]	.376	.374	.37946	2.095

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	27.792	1	27.792	193.020	.000[b]
Residual		46.076	320	.144		
Total		73.868	321			

Model		Unstandardized Coefficients		Standardized Coefficients			Correlations		
		B	Std. Error	Beta	t	Sig.	Zero-order	Partial	Part
Coefficients[a]									
1	(Constant)	1.292	.170		7.600	.000			
	StandofLiv	.629	.045						

a. Dependent Variable: BrainFI

.613 13.893 .000 .613 .613 .613

The result of regression analysis revealed that the dependent variable was strongly correlated at R = 0.613. According to the coefficient of determination R^2 = 0.376 and the adjusted coefficient of determination; adjusted R^2 = 0.374, standard of living explained 3.7% of variance of brain flight intent of medical doctors in federal tertiary institutions in south-south, Nigeria. From the anova table, the statistical significance of the regression model shows that P < 0.0005, which is less than 0.05. This means that it is a good fit. To assess the relative importance of the dependent variable on the independent variable, beta coefficient is provided on the coefficient table. Standard of living showed a significant standardized coefficient of β=0.629, Pvalue=0.0000. This finding can be interpreted that every 1 unit change in standard of living will lead to 0.62 change in brain flight intent. However, since the p-value=0.000 which is less than 0.05, we reject the null hypothesis. It is concluded that

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standard of living has a significant influence on brain flight intent of medical doctors in federal tertiary healthcare institutions in south-south Nigeria.

Ho_2: Rising wage gap has no influence on brain flight intent of medical doctors in federal tertiary healthcare institutions, south-south Nigeria

Table 4.18: Regression Result for Test of Hypothesis Two

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.855[a]	.731	.730	.24923

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	53.992	1	53.992	869.235	.000[b]
Residual		19.876	320	.062		
Total		73.868	321			

Coefficients[a]

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.	Correlations Zero-order	Partial	Part
1	(Constant)	1.893	.117		16.221	.000			
	RisngWgap	.923	.031	.855	29.483	.000	.855	.855	.855

a. Dependent Variable: BrainFI

b. Predictors: (Constant), RisngWgap

Source: Field Survey (2022)

The result of the regression analysis showed that the dependent variable was strongly correlated at R=0.855. The coefficient of determination R^2=0.731 and the adjusted coefficient of determination; adjusted R^2= 0.730. Rising wage gap explained 7.3% of variance of brain flight intent of medical doctors in federal tertiary healthcare institutions in south-south Nigeria. From the anova table, the statistical significance of the regression model shows that P < 0.0005, which is less than 0.05. This means that it is a good fit. In assessing the relative importance of the dependent variable on the independent variable, beta coefficient is provided on the coefficient table. Rising wage gap showed a significant standardized coefficient of β=0.923, pvalue=0.000. This finding shows that every 1 unit change in rising wage gap will lead to 0.92 change in brain flight intent. However, since the p-value=0.000 which is less than 0.05, we reject the null hypothesis. As a result, we conclude that rising wage gap have significant influence on brain flight intent of medical doctors in federal tertiary healthcare institutions in south-south Nigeria.

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4.4 Discussion of Findings

The first objective of this study was to assess the influence of standard of living on brain flight of medical doctors in federal tertiary healthcare institution in south-south Nigeria. In line with this objective, it was hypothesized that standard of living does not influence brain flight intent of medical doctors. From the analysis, regression result showed that the dependent variable was strongly correlated at R = 0.613. According to the coefficient of determination R^2 = 0.376 and the adjusted coefficient of determination; adjusted R^2 = 0.374, standard of living explained 3.7% of variance of brain flight intent of medical doctors in federal tertiary institutions in south-south, Nigeria. Also, standard of living showed a significant standardized coefficient of β=0.629, P-value=0.0000. However, since the p-value=0.000 which is less than 0.05, we reject the null hypothesis. It is concluded that standard of living has a significant influence on brain flight intent of medical doctors in federal tertiary healthcare institutions in south-south Nigeria. This finding was in line with the findings of Hajian, Khoshnevisan, Yazdani and Jadidfard (2019); Hajian, Khoshnevisan, Yazdani and Jadidfard (2019); Asadi, Ahmdi, Nejat and Akbari (2018); Kurka (2014). In their study, they found that standard of living and labor related factors affects the migration intention of dental and medical graduates in Botswana, Australia, South Africa and other developing countries.

The second objective of the study was to assess the influence of rising wage gap on brain flight intent of medical doctors in federal tertiary healthcare institution in south-south Nigeria. In line with this, it was the hypothesized that rising wage gap does not influence brain flight intent of medical doctors. From the regression analysis, it showed that the dependent variable was strongly correlated at R=0.855. The coefficient of determination R^2=0.731 and the adjusted coefficient of determination; adjusted R^2= 0.730. Rising wage gap explained 7.3% of variance of brain flight intent of medical doctors in federal tertiary healthcare institutions in south-south Nigeria. Rising wage gap showed a significant standardized coefficient of β=0.923, p-value=0.000. This finding shows that every 1 unit change in rising wage gap will lead to 0.92 change in brain flight intent. However, since the p-value=0.000 which is less than 0.05, we reject the null hypothesis. As a result, we conclude that rising wage gap have significant influence on brain flight intent of medical doctors in federal tertiary healthcare institutions in south-south Nigeria. This finding is in agreement with the findings of Reardon and George (2014); Kamali, Zandi, IIkhani and Shakeri (2020); Arezoo, Vahid, Sousan and Hadi (2018). In their study, they found that economic and socio-cultural factors influences job satisfaction of nurses in Tehran and Iran.

5.0 Conclusion and Recommendations

Healthcare crisis in Nigeria has intensified with the outbreak of the COVID-19 pandemic and other diseases coupled with the ever growing population. This has further expanded the demand for more well qualified healthcare professionals. Creating a critical mass of retained healthcare professionals to meet these huge tasks will be a tremendous challenge. It is pertinent to ensure that fairly drastic remedial measures need to be taken. Developed countries have taken steps to recruit healthcare professionals from developing countries to meet their healthcare demands, developing countries must take steps to retain their best brains in the sector as well. The heavy loss of healthcare professionals including the ones that intend to migrate, poses a threat of collapsed healthcare services and major risks to the lives of Nigerians. This calls for intensive consultation and consensus building between the developing and developed countries. As recommendations, a policy framework for cubing brain drain should be developed. There is also a need to explore policy options that encourage migrated doctors to return and discourage migration intent of the remaining doctors. The Ministry of Health must be concerned about developing policies on how to retain critical personnel. As a country, there is need to increase the funding of public healthcare sector to enable hospitals purchase necessary equipment and for improvement of workers' welfare packages.

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5.1 Contribution to Knowledge

Most of the studies carried out in this area only considered the actual brain drain, this study stem to be one of the first to consider brain drain intention of professionals in south-south Nigeria. The importance of medical doctors to any society cannot be over emphasized. As such, the alarming migration rate of this set of professionals is worrisome, carrying out a research in order to curb this incessant migration is such an important contribution.

5.2 Limitations of the study

As limitations, the researchers encountered challenges in gaining access to the respondents because of COVID-19 pandemic which caused restrictions in accessing most organizations' documents and personnel. This was surmounted with an official letter from the researchers' faculty dean. Also, some of the respondents were reluctant in participating in the interview session expressing concern that their true feelings, when divulge may cost their job.

Also, the researchers assured them of utmost confidentiality, when convinced, this encouraged them to gladly divulge their true feelings.

5.3 Suggestions for Further Researches

This study only covered federal tertiary healthcare institutions in south-south region of Nigeria. Similar study could be carried out in other regions of the country. Besides the public healthcare institutions, medical doctors in private healthcare institutions could as well be studied. Also, this study concentrated on medical doctors, other studies could incorporate other healthcare personnel like nurses, laboratory scientist etc.

5.4 Declaration of Conflict of Interest

There is no conflict of interest in the research authorship and all issues associated there on, including financial sponsorship other than from article contributors

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