

## **Working conditions and Human Capital Flight Intentions among Medical Doctors in Federal Tertiary Healthcare Institutions in South-South Nigeria**

**Dr Samuel G. Etuk**

Department of Marketing, Faculty of Business Administration, University of Uyo, Uyo

**Dr Orok A. Imagha**

Department of Business Management, Faculty of Business Administration, University of Uyo,  
Uyo

**Dr Anietie P. Akpan**

Department of Business Management, Faculty of Business Administration, University of Uyo,  
Uyo

**Willie N. Nkanor**

Department of Business Management, Faculty of Business Administration, University of Uyo,  
Uyo.

doi: <https://doi.org/10.37745/ejbir.2013/vol11n23154>

Published April 10, 2023

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**Citation:** Etuk S.G., Imagha O.K., Akpan A.P., Nkanor W.N. (2023) Working conditions and Human Capital Flight Intentions among Medical Doctors in Federal Tertiary Healthcare Institutions in South-South Nigeria, *European Journal of Business and Innovation Research*, Vol.11, No.2, pp.,31-54

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**ABSTRACT:** *This study was carried out to assess the influence of working conditions on human capital flight intention of medical doctors in federal tertiary healthcare institutions, south-south, Nigeria. This was premised on the fact that medical doctors are leaving the country in droves while others may be harboring the intention of leaving. Push-Pull theory was used in supporting this study. Survey research design was adopted for this study and the study population was 2,337 medical doctors in the employ of the various tertiary healthcare institutions within the study area from which a sample of 342 was selected. Primary data, which were collected through a structured questionnaire, was used for the study. Data obtained were analyzed using descriptive statistics and inferential techniques. Results of data analysis revealed that physical work environment explains 7.3% of variance to human capital flight; work burden contributes 3.9% while supervisor support explained 3.7%. Conclusively, the heavy loss of medical doctors including the ones that intend to migrate, poses threat of collapse in the healthcare sector and present major risks to the lives of Nigerians. This calls for intensive consultation and consensus building between the developing and developed countries.*

**KEYWORDS:** *Human Capital Flight intentions, Physical work environment, Work burden, Supervisor support*

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## INTRODUCTION

Nigeria is constantly losing highly skilled professionals in various sectors of the economy to developed countries via migration. Recently, the rate of migration of Nigerian highly skilled workers is disturbing as this has created gaps in several sectors like the oil and gas, technological industry, and the most alarming gap appears within the healthcare sector (Anetoh and Onwudinjio, 2020). According to Atte (2020), the World Health Organization (WHO) in 2016 reported a shortage of 4.3 million healthcare workers worldwide. Sub-Saharan African 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 (WHO, 2016). Even with this reported shortage, Nigerian healthcare practitioners have continued to migrate in large numbers 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 human capital flight (HCF).

Human capital flight (HCF), also known as brain drain or brain 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, human capital 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, especially those already struggling to cope with poor healthcare systems that scarcely 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 under developed and developing countries, within Sub-Saharan Africa of which Nigeria is a part and contributes ample proportion of this figure (WHO, 2016).

Medical doctors play significant roles in human lives. The absolute first and last events of most human are both certified by doctors, in maternity and hospital. They make a difference by aiding patients minimize pain, recover from a disease faster or learn to live with a disabling injury. Patient's ability to enjoy life, even when 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 *et al.*, (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 undertake responsibilities that include but are not limited to clinical, teaching, research, leadership, and managerial/administrative roles in their line of duty. These many tasks

require some high level of performance to pull through effectively. 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 presently practicing here. By implication, there are more Nigerian doctors (62.4%) practicing abroad than there are (37.6%) practicing in Nigeria. One of the major causes of this phenomenon is the working conditions (Saidi et al., 2019). Working conditions has to do with policies that govern the organization, physical work environment, work procedures or burden, supervisor support etc.

World Health Organization recommends 1:600 doctor to patients ratio. Currently, in Nigeria, the ratio of doctor per patient remains at 1:5,000 due to her ever-growing population (WHO, 2016). This means that the country's medical personnel is overstressed 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 other 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 this has contributed to human capital flight intention amongst medical doctors in Nigeria.

Human capital flight intention has a huge 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 working environment on human capital flight intention, 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). Others include; unsatisfactory working conditions characterized by heavy workloads, obsolete facilities and limited access to professional development opportunities. This has led to incessant industrial actions and threats of strikes by medical doctors. Unfortunately, this may lead to dysfunctional job performance like dampened work morale, incessant tardiness and eventually, intention to migrate. These dysfunctional work attitudes 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. Human capital flight phenomenon has led to a drastic reduction of highly skilled and experienced medical doctors and contributes 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. Human capital flight 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 succor abroad. These issues necessitated this study.

### **Objective of the Study**

The major objective of this study was to assess the influence of working conditions on human capital flight intention of medical doctors in Federal Tertiary Healthcare Institutions in South-South, Nigeria. The specific objectives include to;

- i. examine how physical work environment influences human capital flight intention of medical doctors in federal tertiary healthcare institutions, south-south Nigeria;
- ii. assess the influence of work burden on human capital flight intention of medical doctors in federal tertiary healthcare institutions, south-south Nigeria; and
- iii. examine the influence of supervisor support on human capital flight intention of medical doctors in federal tertiary healthcare institutions, south-south Nigeria

### **Research Hypotheses**

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

**H<sub>01</sub>:** Physical work environment has no significant influence on human capital flight intention of medical doctors in federal tertiary healthcare institutions, south-south Nigeria

**H<sub>02</sub>:** Work burden has no significant influence on human capital flight intention of medical doctors in federal tertiary healthcare institutions, south-south Nigeria

**H<sub>03</sub>:** Supervisor support has no significant influence on human capital flight intention of medical doctors in federal tertiary healthcare institutions, south-south Nigeria

## **LITERATURE REVIEW**

### **Concept of Human Capital Flight and Brain Flight Intention**

The term human capital flight is also known as brain drain or brain flight. It connotes large-scale movement or migration of top flight manpower from various developing countries (mainly African countries) to developed countries notably United States of America, United Kingdom, Canada, Germany, France, Holland, New Zealand, Italy, United Arab Emirate, Australia, etc. As earlier noted, the main reason for this movement could be the quest for better opportunities. Similarly, Longman Dictionary of Contemporary English defines human capital flight as a movement of highly skilled or professional people from their own country to another country where they can earn more money. The thought process of actualizing this is known as human capital flight intention. Contrasting with actual human capital flight, human capital flight intention refers to the

likelihood of highly skilled workers or professionals to migrate. With specific reference to the healthcare sector, Utile (2008) conceptualizes human capital 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.

Intention is a statement about a specific behaviour of interest. A wide range of human capital flight studies is indicative of the significance and complexity of the issue. The phenomenon entices interest due to its psychological dimension, its organizational significance, and its economic dimension. As such, it is imperative for HRM managers to understand that there are several factors inherent to counter healthcare providers' human capital flight intentions. Government invests a lot on their employees by 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 human capital flight intentions and more specifically major 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.

Human capital flight is common amongst such skilled personnel as medical doctors, pharmacists, medical laboratory scientists, nurses, industrial chemists, and pilots. Others are computer scientists, engineers, university lecturers, researchers, technologists and lawyers. The term human capital flight 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). Human capital flight 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 human capital flight is brain gain. As such, whilst developing countries from which trained personnel are migrating are suffering from human capital flight, developed nations are experiencing brain gain.

### **Working Environment**

Work environment can be seen as anything that exists within and around the employee which can affect how such an employee performs his/her duties. Workplace environment is an important component of work life for employees as employees spend significant part of their time at work, and it affects them in one way or the other. It is concluded that the employees who are satisfied with their work environment can lead towards more positive work outcomes (Kamarulzaman, et al., 2011).

Al-Omari and Okasheh (2017) assert that working environment is both an external and an internal condition which can influence working spirit and result in instantly finished jobs. According to Sedarmayanti (2003), a decent working environment is a condition where individuals can do their jobs in an ideal, secure, healthy, and comfort way. As such, many studies categorize the work environment into toxic and conducive environments (Yusuf and Metiboba, 2012; Assaf and Alswalha, 2013). McGuire and McLaren (2007) believes that an organization's physical environment especially its layout and design can impact employee behaviour in the workplace. As noted by Nitisemito (2001), some of the factors that influence the workplace include: physical work environment (cleanliness, water, lighting, colouring, security etc.), work burden, supervisor support. Many work environment studies have shown that workers are satisfied with reference to specific work environment features.

### **Work Burden**

Work is a significant angle in the lives of most people, possessing a noteworthy part of their ability to be self-aware. Besides the money related advantages that work provides, an individual's work is known to bring life fulfillment and self-improvement (Mannheim and Schiffrin, 1984). Burden is a wellspring of mental worry for employees which cause stress. Stress is a functioning perspective where people face both as a chance and as requirement. Under-utilization of human abilities or neglecting to arrive at the maximum capacity of the workers is likewise one reason to expand pressure (Robbins et. al, 2011). An examination led by Campbell et al. (2007) on administrative and proficient worker's affiliation found that 65.5percent of the laborers accepted a five-day work week would assist them with bettering deal with their private issues and would permit them to invest more energy with their families and furthermore, improve their personal satisfaction which helps in improving their productivity at work. Various examinations secured that position pressure impacts the employees work fulfillment and their general exhibition in their work. Actually, present day times have been called as the 'age of nervousness and stress' (Rehman et al. 2012). Unnecessary work impedance with family is additionally connected with more noteworthy pressure generally, work burnout, expanded non-appearance and higher turnover (Duranni, 2020).

### **Supervisor's Support**

According to Namatovu (2018) supervisor support is defined as employees' views concerning the degree to which their supervisors value their contributions and care about their well-being. Supervisor support can also be known as supervisor's consideration, and as such, it refers to the degree to the degree of support supervisor's give to their employees or subordinates by recognizing their effort and contributions. According to Eisenberger et al., (2002) supervisors are regarded as agent of the organization because they are responsible for leading and supervisors are responsible for coordinating and evaluating employees' job performance. As such, feedback from a supervisor is seen as a sign of support on the part of the employee. This in turn further strengthens the commitment of the employee and in turn increases his productivity in the workplace (Mohammed and Ali, 2016)

### **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.

Passaris (1989) further expressed that there exists a correlation between migration and economics and stated that historically the economic impact of migration is often neglected when discussing migration theories and the causes. There is a universal consequence as it relates to economics, and this should be measured when defining the appropriate parameters and constructing the theoretical foundations for the systematic analysis and exposition of the causes and consequences of immigration. Passaris also pointed out that there was an economic undertone to what Ravenstein and Lee reported in their individual theories and that the study of economics was overlooked due to the fact that, at the time of the publication of their papers, there was no theoretical framework that used the economic lens to look at immigration as a concept. It was further argued by Passaris that immigration needed to be explored within the concept of economic theory to gain a better understanding of how economic factors drive immigration.

Researchers tend to use Lee's (1966) more contemporary version of early migration theory. Gibson and McKenzie (2011) specified that there is evidentiary support on both the micro and macro level that suggests highly skilled individuals will migrate from one place to another if their needs are not met in their home country. Migration theorists continue to use the foundation of Ravenstein's (1889) laws of migration and more specifically Lee's theory of migration to outline the migratory pattern of people throughout history. According to Yanai *et al.* (2020), highly skilled individuals are pushed from their country of origin due the negative factors they find undesirable and are pulled by their destination country due to desirable factors that were provided by the country of origin. As Lee stated, the first set of factors for migration involve "factors associated with an area of origin factors. This factor explained the push factors that formed the basis for the migration of individuals from their source country to the destination country. In Nigeria, the push factors include corruption; overall, bad governance has been a recurring theme amongst migration researchers.

The second set of factors Lee (1966) outlined include factors associated with the area of destination. Many Nigerians travel to developed countries because of the pull factors the destination country had to offer them. The pull factors such as better wages, better governance, and other elements attract migrants from their developing country to a developed country due to the structure of their labor market and the market segmentation. In Nigeria, the labor market is in poor shape due to low wages and long hours. Many highly skilled workers in turn get pulled by the labor market configuration that aligns more with their skill set, and those labor markets are primarily in developed countries. Intervening obstacles are the third set of factors in Lee's push-pull theory. Intervening obstacles are obstructions that can hinder migration. Klaus and Pachocka (2019) stated that "intervening obstacles" could "take the form of various barriers, including physical (walls or fences), financial (costs of a journey), technical (arrangement of a long journey with small kids), and legal ones (strict migration law or policy).

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.



## **Empirical Review**

Saidi *et al.*, (2019) conducted a study to investigate the relationship between the working environment and employee performance based on five dimensions of the working environment. The quantitative survey design was utilized in this study and data were collected by using questionnaires. The respondents of this study were administrators from different departments in a local municipality located in Kuching. The data were analysed by using Pearson's Correlation Analysis to measure the relationship between the variables. Finding shows there exist a significant relationship between the working environment and employee performance. Support from supervisor was found to be the dominant variables in ensuring a positive working environment.

Elaho and Odion (2022) in their study analyzed work environment and the impacts it holds on employee productivity. The study employed a descriptive and quantitative approach, as first hand data was retrieved from the respondents. The study employed the use of questionnaires on a 5-point Likert scale, from the target sample of 147 business centers registered in University of Benin Ugbowo campus. The data was analyzed via frequency counts and presented in tables and percentages, while advance analysis, the regression statistics was also carried out in other to achieve the research objectives. Every organization sought after a better employee, a high productive employee. Hence, this result showed that organizations and employees as well are the prima facie of this study. Conclusively, there are numerous organizations, from different industries, different sizes and different sector facing different environmental challenges. However, the study was based only on small scale business registered in the University of Benin.

Hafeez, *et al.*, (2019) carried out a study to explore the impact of workplace environment factors and Behavioral Environmental Factors on employee productivity (EP) through mediating role of employee health (EH). The study adopted survey research method and data was collected from 250 employees working in software houses in Pakistan. Data was been analysed with the aid of SPSS and AMOS software. Correlation analysis was performed using SPSS while; path analysis was performed using AMOS. Results revealed that one unit variance in PEF incorporates 35% change in EH, 33% change in EH is caused by one unit increase in BEF and one unit increase in EH leads to 80% increase in EP. Physical and Behavioural Environmental Factors are positively affecting EH and EH is positivity affecting EP. Conclusively, from the results of the study, employee health is mediates the relationship between workplace environment factors and employee performance. Suggestion for further - other studies can consider compensation practices, insurance plans and health benefits by the organisation, a large sample or increased number of mediating variables can be used.

## **METHODOLOGY**

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

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given as follows; University of Calabar Teaching Hospital:- Sessional consultants-72, 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 1.

**Table 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
5	Federal Medical Center,Asaba (FMCA)	49
6	Federal Medical Center, Yenegoa (FMCY)	38
<b>Total</b>		<b>2,337</b>

**Source:** Field Survey (2023)

These figures were gotten from the human resources department of the respective institutions as at August, 2021.

From the population stated above, a sample size of 342 was selected for this study. This was determined using Taro Yamene formula for sample size determination.

The sample size was distributed in proportion to population size per hospital 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

Convenience sampling technique was adopted for this study. The research instrument was a structured questionnaire which was 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.

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 linear regression analysis was the inferential statistics used. All hypotheses were tested at 0.05 level of significance. Statistical Package for Social Science (SPSS) version 21 was used to aid the analysis.

Based on the variables of this study, the simple linear regression equations are presented thus;

$$H_i = a_1 + b_1Pw + \dots e \quad \text{equation 1}$$

$$H_i = a_2 + b_2Wb + \dots e \quad \text{equation 2}$$

$$H_i = a_3 + b_3Ss + \dots e \quad \text{equation 3}$$

Where;

$H_i$  (Y) = Human capital flight intention

$Pw$  ( $X_1$ ) = Physical work environment

$Wb$  ( $X_2$ ) = Work burden

$Ss$  ( $X_3$ ) = Supervisor support

$e$  = error term

$a$  = constant

## Data Presentation, Analysis and Interpretation

**Table 2: 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 (2023)

As indicated in Table 2, 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

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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 3: 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 (2023)

Table 3 indicates that 88 which represent 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: Designate**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Consultants	15	4.7	4.7	4.7
Sessional consultants	14	4.3	4.3	9.0
Honorary consultants	21	6.5	6.5	15.5
Resident doctors	105	32.6	32.6	48.1
Medical officers	95	29.5	29.5	77.6
House officers	72	22.4	22.4	100.0
Total	322	100.0	100.0	

**Source:** Field Survey (2023)

From table 4, 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 5: 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 (2023)

Table 5 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.

### Research Questions treatment

**Table 6: Responses on if not being provided with sufficient modern facilities/tools has encouraged doctors to contemplate 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 (2023)

Table 6 indicates that 16 doctors representing 5.0% disagree that not being provided with modern facilities has encouraged doctors to contemplate 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 not being provided with modern facilities has encouraged doctors to contemplate practicing abroad.

**Table 7: Responses on if poor funding of institutions which has encouraged an untidy work environment has made doctors consider practicing abroad**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	1	0.3	0.3	0.3
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 (2023)

Result showed that one (1) doctor representing 0.3% respondents strongly disagree that poor funding which has encouraged an untidy work environment has made doctors consider practicing abroad. 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 poor funding which has encouraged an untidy work environment has made doctors consider practicing abroad.

**Table 8: Responses on if lack of sufficient light to provide conducive work environment has made 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 (2023)

Table 8 indicates that 16 doctors representing 5.0% disagree that lack of sufficient light to provide conducive work environment has made 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 lack of sufficient light to provide conducive work environment has made doctors consider practicing abroad.

**Table 9: Responses on if they feel government does not value their contribution to the institution**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	1	0.3	0.3	0.3
Disagree	9	2.8	2.8	3.1
Undecided	97	30.1	30.1	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 (2023)

Result shows that 1 doctor which represents 0.3% strongly disagree that they feel government does not value their contribution to the institution. 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 feel government does not value their contribution to the institution.

**Table 10: Responses on if they feel management of their institution do not show concern for their complaints**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	22	6.8	6.8	6.8
Disagree	20	6.2	6.2	13.0
Undecided	24	7.5	7.5	20.5
Agree	138	42.9	42.9	63.4
Strongly Agree	118	36.6	36.6	100.0
Total	322	100.0	100.0	

**Source:** Field Survey (2023)

Findings revealed that 22 doctors which represents 6.8% strongly disagree that doctors feel management of their institution do not show concern for their complaints. 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 feel management of their institution do not show concern for their complaints.

**Table 11: Responses on if they feel government does not care about them as individuals**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	2	0.6	0.6	0.6
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
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 care about them as individuals. 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 care about them as individuals.

**Table 12: Responses on if they consider practicing abroad because of high patients ratio**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	1	0.3	0.3	0.3
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 (2023)

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 13: Responses on if doctors feel they do not have a manageable number of work hours**

	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 they feel they do not have a manageable number of work hours. 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 they feel they do not have a manageable number of work hours.

**Table 14: Responses on if they would not recommend friends or family members to work in their institution**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	2	0.6	0.6	0.6
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 (2023)

Result depicts that 2 doctors representing 0.6% of the respondents strongly disagree that they would not recommend friends or family members to work in their institution. 9 which represent 2.8% disagree, 96 representing 29.8% were undecided, 158 representing 49.1% agree while 57 representing 17.7% strongly agree. With the highest response rate being 49.1%, it implies that medical doctors agree they would not recommend their friends or family members to work in their institution

**H<sub>01</sub>:** Physical work environment has no significant influence on human capital flight intention of medical doctors in federal tertiary healthcare institutions, south-south Nigeria

**Table 15: Regression Result for Test of Hypothesis One**

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate					
1	.855 <sup>a</sup>	.731	.730	.24923					

  

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	53.992	1	53.992	869.235	.000 <sup>b</sup>
	Residual	19.876	320	.062		
	Total	73.868	321			

  

Coefficients <sup>a</sup>									
Model		Unstandardized Coefficients		Standardized Coefficients		Correlations			
		B	Std. Error	Beta	t	Sig.	Zero-order	Partial	Part
1	(Constant)	.221	.117		1.893	.059			
	PhysiWE	.923	.031	.855	29.483	.000	.855	.855	.855

a. Dependent Variable: HumCF

b. Predictors: (Constant), PhysiWE

**Source:** Field Survey (2023)

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  $R^2=0.730$ . Physical work environment explained 7.3% of variance of human capital 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. Physical work environment showed a significant standardized coefficient of  $\beta=0.923$ , p-value=0.000. This finding shows that every 1 unit change in physical work environment will lead to 0.92 change in human capital 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 physical work environment have significant influence on human flight intent of medical doctors in federal tertiary healthcare institutions in south-south Nigeria.

**H<sub>02</sub>:** Work burden has no significant influence on human capital flight intention of medical doctors in federal tertiary healthcare institutions, south-south Nigeria.

**Table 16: Regression Result for Test of Hypothesis Two**

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate					
1	.631 <sup>a</sup>	.398	.396	.37281					
ANOVA <sup>a</sup>									
Model		Sum of Squares	Df	Mean Square	F	Sig.			
1	Regression	29.393	1	29.393	211.484	.000 <sup>b</sup>			
	Residual	44.475	320	.139					
	Total	73.868	321						
Coefficients <sup>a</sup>									
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Zero-order	Correlations Partial	Part
		B	Std. Error	Beta					
1	(Constant)	1.264	.164		7.692	.000			
	Wrkburd	.634	.044	.631	14.542	.000	.631	.631	.631

a. Dependent Variable: HumCF

b. Predictors: (Constant), Wrkburd

Source: Field Survey (2023)

The result of the regression analysis revealed that the dependent variable was strongly correlated at  $R=0.631$ . The coefficient of determination  $R^2=0.398$  and the adjusted coefficient of determination; adjusted  $R^2=0.396$ . From the anova table, the statistical significance of the regression model shows that  $P < 0.0005$ , which is less than 0.05. This implies 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. Work burden showed a significant standardized coefficient of  $\beta=0.634$ ,  $p$ -value=0.000. This finding shows that every 1 unit change in work burden will lead to 0.63 change in human capital 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 work burden have significant influence on human capital flight intent of medical doctors in federal tertiary healthcare institutions in south-south Nigeria.

**H<sub>03</sub>:** Supervisor support has no significant influence on human capital flight intention of medical doctors in federal tertiary healthcare institutions, south-south Nigeria

**Table 17: Regression Results for the Test of Hypothesis Three**

<b>Model Summary<sup>b</sup></b>									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson				
1	.613 <sup>a</sup>	.376	.374	.37946	2.095				

  

<b>ANOVA<sup>a</sup></b>									
Model		Sum of Squares	df	Mean Square	F	Sig.			
1	Regression	27.792	1	27.792	193.020	.000 <sup>b</sup>			
	Residual	46.076	320	.144					
	Total	73.868	321						

  

<b>Coefficients<sup>a</sup></b>										
Model		Unstandardized Coefficients		Standardized Coefficients		T	Sig.	Correlations		
		B	Std. Error	Beta				Zero-order	Partial	Part
1	(Constant)	1.292	.170			7.600	.000			
	Supersup	.629	.045	.613		13.893	.000	.613	.613	.613

a. Dependent Variable: HumCF

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  $R^2 = 0.374$ , supervisor support explained 3.7% of variance of human capital 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. Supervisor support showed a significant standardized coefficient of  $\beta=0.629$ ,  $P\text{-value}=0.0000$ . This finding can be interpreted that every 1 unit change in supervisor support will lead to 0.62 change in human capital flight intent. However, since the  $p\text{-value}=0.000$  which is less than 0.05, we reject the null hypothesis. It is concluded that supervisor support has a significant influence on human capital flight intent of medical doctors in federal tertiary healthcare institutions in south-south Nigeria.

## DISCUSSION OF FINDINGS

The first objective of the study was to assess the influence of physical work environment on human capital flight intent of medical doctors in federal tertiary healthcare institution in south-south Nigeria. In line with this, it was hypothesized that physical work environment does not

influence human capital 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  $R^2= 0.730$ . Physical work environment explained 7.3% of variance of human capital flight intent of medical doctors in federal tertiary healthcare institutions in south-south Nigeria. Physical work environment showed a significant standardized coefficient of  $\beta=0.923$ ,  $p\text{-value}=0.000$ . This finding shows that every 1 unit change in physical work environment will lead to 0.92 change in human capital flight intent. However, since the  $p\text{-value}=0.000$  which is less than 0.05, we reject the null hypothesis. As a result, we conclude that physical work environment have significant influence on human capital flight intent of medical doctors in federal tertiary healthcare institutions in south-south Nigeria. This finding is in agreement with the findings of Hafeez *et al.*, (2020); Kamarulzaman *et al.*, (2011). In their study, it was revealed that physical work environment influences employees' performance in China.

The second objective was to assess the influence of work burden on human capital flight intent of medical doctors in federal tertiary healthcare institution in south-south Nigeria. It was equally hypothesized that work burden does not influence human capital flight intent of medical doctors in federal tertiary healthcare institutions in south-south Nigeria. Regression analysis revealed that the dependent variable was strongly correlated at  $R=0.631$ . The coefficient of determination  $R^2=0.398$  and the adjusted coefficient of determination; adjusted  $R^2= 0.396$ . Work burden explained 3.9% of variance of human capital flight intent of medical doctors in federal tertiary healthcare institutions in south-south Nigeria. Work burden showed a significant standardized coefficient of  $\beta=0.634$ ,  $p\text{-value}=0.000$ . This finding shows that every 1 unit change in work burden will lead to 0.63 change in human capital flight intent. However, since the  $p\text{-value}=0.000$  which is less than 0.05, we reject the null hypothesis. As a result, it was concluded that work burden have significant influence on human capital flight intent of medical doctors in federal tertiary healthcare institutions in south-south Nigeria. This study is in agreement with the study of Al-Omari and Okasheh (2017); Yusuf and Metiboba (2012), in their study, it was found that long work hours, poor of work tools and other factors influences the migration of librarians in some selected universities in Kenya.

The third objective of this study was to assess the influence of supervisor support on human capital flight of medical doctors in federal tertiary healthcare institution in south-south Nigeria. In line with this objective, it was hypothesized that supervisor support does not influence human capital 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  $R^2 = 0.374$ , supervisor support explained 3.7% of variance of human capital flight intent of medical doctors in federal tertiary institutions in south-south, Nigeria. Also, supervisor support showed a significant standardized coefficient of  $\beta=0.629$ ,  $P\text{-value}=0.0000$ . However, since the  $p\text{-value}=0.000$  which is less than 0.05, we reject the null hypothesis. It is concluded that supervisor support has a significant influence on human capital flight intent of medical doctors in federal tertiary healthcare institutions in south-

south Nigeria. This finding was in line with the findings of Assaf and Alswalha (2013); Saidi *et al.*, In their study, they found that supervisor support and labor related factors affects the migration intention of dental and medical graduates in Botswana, Australia, South Africa and other developing countries

## CONCLUSION

Healthcare crisis in Nigeria has deepened with the advent of the COVID-19 pandemic and other diseases together with the ever growing population. This has further expanded the demand for well qualified healthcare professionals. Building a critical mass of retained healthcare professionals to meet these huge tasks will be a tremendous challenge. It is essential to ensure that fairly drastic remedial measures are taken. Developed economies have taken steps to recruit more healthcare professionals from developing economies to meet their healthcare needs; developing economies must implement measures 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 all stakeholders, a policy framework for curbing human capital flight intention should be developed. Equally, there is need to explore policy options that encourage migrated doctors to return and discourage migration intent of the remaining doctors. Nigeria as a country need to increase the funding of public healthcare sector to enable hospitals purchase necessary equipment and for improvement of conducive work environment.

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