**IMPACT OF BRAIN DRAIN IN THE HEALTH SECTOR: A STUDY OF SELECTED PUBLIC HOSPITALS IN KWARA STATE**

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**August, 2022**

**DECLARATION**

I, Joy Oluwakemi Oladapo, an M.Sc. International Relations student in the (Department of Political Science, International Relations and Mass Communication), Landmark University, Omu-Aran, hereby declare that this Dissertation entitle “Impact of Brain Drain in the Health Sector: A Study Selected Public Hospitals in Kwara State”, which I have submitted, entirely focused on my original research. All information derived from other sources or completed by other people or institutions has been properly acknowledged.

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**CERTIFICATION**

This is to attest that this research was carried out by OLADAPO Joy Oluwakemi (20PGEB000125) in the Department of Political science and International Relations, College of Business and Social Sciences, Landmark University under our supervision.

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**ABSTRACT**

In Nigeria, where worsening economic, social, and political circumstances are further pushing and igniting the migrant stream, the issue of skills shortage has become alarming and the health delivery system is arguably the most negatively impacted by this phenomenon as health professionals are migrating in mass in quest of better opportunities in industrialized nations, Despite all of these pull and push considerations, the migration of medical professionals from developing to developed nations has harmed the quality of healthcare in developing nations.

Accordingly, the work uses a survey design which is a quantitative method of research. It employed mixed methods of data collection and data analysis by engaging in purposive sampling techniques. The study sample consisted of 331 respondents determined through the Taro Yamane Formula. A structured questionnaire based on the Likert scale was used to elicit data from the respondent and also a face-to-face interview was done to back up the questionnaire. The data was presented and analyzed using descriptive, frequency tables, regression and coefficients. The rational choice theory provided the research with a theoretical framework which has to do with individual preferences, beliefs and rationality.

The result of this study showed that 80.4% of the respondents believe that the migration of health workers has reduced the quality of healthcare delivery and 43.2% of the respondents strongly agreed that the increase in migration of health workers has resulted in poor delivery of healthcare to the citizens. Which has also affected the workload of health workers who are still in the health system. “It has affected the delivery of healthcare services because the numbers of nurses that are presently working are very few compare to the numbers of the populace. Also, the finding shows that 44.4% of the respondent believe that the government incentives for health workers in Kwara state are not effective.

The research work recommends the government should improve work pay, staff welfare, career advancement/growth, burnout and improved conditions of work. Also, the government should put in place more incentives for the health workers such as; retirement age, rural posting allowance and scholarships for further study as available in the developed nations.

**Keywords:** Brain Drain, Health sector, Health Workers, Healthcare Delivery, Kwara state.

**Word count:**364

**DEDICATION**

This study is an offering to the Almighty God, for his unending love, care, and faithfulness throughout my academic programme at Landmark University in Omu-Aran. Also to my wonderful parents, Pastor and Elder Oladapo for their care and support spiritually and financially.

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**TABLE OF CONTENTS**

**Cover Page**

**Title Page ii**

**Declaration iii**

**Certification iv**

**Abstract v**

**Dedication vi**

**Acknowledgement viii**

**Table of Contents x**

**List of Tables ix**

**List of Abbreviations xi**

**Chapter One: Introduction**

1.1 Background of the Study 1

1.2 Statement of the Research Problem 5

1.3 Research Questions 5

1.4 Research Objectives 6

1.5 Research Hypothesis 6

1.6 Significance of Study 7

1.7 Scope of study 7 1.8 Limitation of study 7

1.9 Organization of Chapter 7

1.10 Operational Definition of Terms 7

**Chapter Two: Literature Review and Theoretical Framework**

2.1 Introduction 9

2.2 Conceptualizing Brain drain 9

2.2.1 The Concept of Brain Drain 10

2.2.2 Nature of Brain Drain 11

2.2.3 Reasons for Nigeria’s Brain Drain 12

2.3 The Concept of Migration 13

2.3.1 Types of Migration 13

2.3.2 Immigration and Emigration 14

2.3.3 Causes of Migration/Push and Pull Factors 16

2.4 Health Sector 18

2.5 Theoretical Framework 19

2.5.1 The Rational Choice Theory 19 **Chapter Three: Research Methodology**

3.0 Introduction 22

3.1 Research Design 22

3.2 Study Area 23

3.3 Methods of Data Collection 23

3.4 Sampling Technique 24

3.5 Methods of Data Analysis 25

3.6 Validity and Reliability 25

3.7 Ethical Consideration 27

**Chapter Four: Results and Discussion of Findings**

4.1. Introduction 29

4.2 Demographic Characteristics of Respondents 29

4.3 Presentation of the Respondent Responses 30

4.4 Results of Questionnaire Survey 32

4.5 Testing of Hypothesis 41

4.6 Findings and Discussion 46

**Chapter Five: Summary, Conclusion and Recommendations**

5.1. Introduction 49

5.2 Summary 49

5.3 Conclusion 50

5.4 Recommendation 50

**REFERENCES** 52

**APPENDIX ONE** 58 **APPENDIX TWO** 59

**LIST OF TABLES**

Table 2.1 Factors Influencing the Emigration of Health Workers in Nigeria

Table 3.1 Summary of the Research Design

Table 3.2 Reliability Test

Table 4. 1 Demographic Characteristic of Respondents

Table 4. 2 Respondent Profile

## Table 4.3 Quality of healthcare services

## Table 4.4 Poor delivery of healthcare services

## Table 4.5 Increase in Workload of health workers

Table 4.6.1 Model Summary

Table 4.6.2 ANOVAa

Table 4.6.3 Coefficientsa

## Table 4.7 Health workers Incentives

## Table 4.8 Effectiveness of Government Incentives

## Table 4.9 Incentives that are not implemented

Table 4.10.1 Model Summary

Table 4.10.2 ANOVAa

Table 4.10.3 Coefficientsa

**LIST OF ABBREVIATIONS**

UNMA United Nations Migration Agency

IOM International Organization for Migration

WHO World health organization

ACP African, Caribbean and Pacific states

SPSS Statistical package for social science

UK United Kingdom

EU European Union

US United States

MDCN Medical and Dental council of Nigeria

GMC General Medical council

HRH Human Resources for Health

SDG Sustainable Development Goals

HIV Human Immunodeficiency Virus

AIDS Acquired Immunodeficiency Syndrome

**CHAPTER ONE**

**INTRODUCTION**

**1.1 Background of the Study**

The reduction of workers and skilled professionals in the healthcare workforce has become one of the negative impacts of the migration of healthcare professionals, which is a concern in both developing and developed nations (Buchan, 2008). It also affects the global development agenda of developing countries and the quality of healthcare services provided (Tankwanchi, 2012). According to the Global Health Workforce Alliance's (2014) analysis of current migration patterns, the number of physicians moving from low-income to high-income countries is increasing exponentially.

The North and South are becoming more interconnected as a result of globalization, which is also increasing the migration of healthcare professionals abroad. Several international groups have criticized the aggressive recruitment of health professionals, especially from regions with acute shortages, in response to this migration and asked for effective monitoring of global migration trends (World Health Organization, 2010). Doctors have been leaving Nigeria in larger numbers in recent years, but there are no apparent measures in place to control this trend or reduce its detrimental effects on the country's already precarious healthcare system (Adebayo, 2021).

In Sub-Saharan Africa, an area with a persistent shortage of medical professionals, the consequences of foreign migration on healthcare outcomes have been of critical concern. Personnel and expertise shortfalls in Nigeria's healthcare system have been linked to health practitioners migrating to advanced economies (Adeloye, 2017). Additionally, media reports have highlighted the rising departure of doctors (Abang, 2019; Onyekwere & Egenuka, 2019).

Several authors have widely discussed the issues of brain drain and brain waste (Dada, 2016). The Medical and Dental Council of Nigeria (MDCN) registration has roughly 74,543 professionals, according to the most recent figures (Ezigbo, 2020). However, barely approximately 50% of these physicians work in the nation (Muanya, 2020). For Nigeria to fulfil the WHO's proposed doctor-patient ratio of 1:600, it could require well over 300,000 medical practitioners (Muanya, 2020). The current COVID-19 pandemic has exacerbated the nation's already dire human resources for health issues even worse.

Additionally, since 2009, Europe, America, Australia, and South Africa have already been luring 700 doctors away from Nigeria annually. Moreover, during the past decade, the percentage of Nigerian-trained physicians completing residencies in the USA has increased (Tankwanchi, 2012). According to statistics provided on the GMC website, the population of Nigerian doctors certified by the General Medical Council (GMC) in the UK increased between 2006 and 2016. (GMC, 2018). Additionally, a 2017 online study in Nigeria found that 90% of the doctors who participated reported looking for employment overseas (NOIPolls, 2018).

According to the most current report from the World Health Organization (WHO), Nigeria has approximately 3.8 doctors per 10,000 persons, which is much less than the minimum requirement of 23 doctors per 10,000 people that is recommended. It seems that little has been done to control the migration of doctors considering the increasing trend in emigration and the recorded facts of the shortfalls in the human capital in Nigeria's health sector. This is demonstrated by a recent remark made by the Nigerian Minister of Labor and Employment, who claimed that there were too many doctors in the nation (Akinkuotu, 2019). Additionally, there is no sign of any plans to assure the repatriation of medical practitioners or any regulations to guarantee a sufficient supply or retention of the health workforce to manage the exodus (Adeloye, 2017).

The provision of quality healthcare to the populace is an important index of the development of a country. Nigeria, like many under-developed countries, has been unable to deliver quality healthcare to the majority of its citizens due to multiple factors. One of the major reasons is the inability of the Nigerian healthcare sector to retain an adequate number of health workers or to ensure the retention of health workers within the borders of Nigeria. The majority of Nigerian-trained physicians, particularly those in their early careers, nurses, and midwives are constantly leaving the country for better opportunities abroad.

However, the increased brain drain of doctors, nurses, and midwives in Western countries has led to negative effects in Nigeria, including insufficient manpower in the healthcare sector. Nigerian migration is increasingly motivated by work, and as a consequence, many Nigerians are moving to more developed nations. In recent times, Africa has experienced a significant increase in a skills shortage (Muula, 2006).

Emigration is likely to increase the burden of residual healthcare professionals, reducing access to quality healthcare and making it more difficult for the healthcare system to meet national health goals. (2004) Melanie The healthcare sector demands qualified and experienced professionals for efficient and productive performance, hence its total effectiveness is impacted by the emigration of healthcare professionals. (WHO GHWA, 2018) HRH Country Profile: Nigeria The doctor-to-patient ratio in Nigeria is 1:5000, suggesting that the majority of the general public may find it difficult to obtain essential basic healthcare. Nigeria has one of the greatest pools of health workforce (HRH) in Africa, but it also has densities of population similar to those in the other 57 HRH crisis nations.

The key challenges for Nigeria are the limited production and unequal availability of healthcare workers, which have risen in the past few years as migration to other nations has worsened. In the southern region of the country, particularly in Lagos, healthcare professionals are concentrated in the provision of urban tertiary healthcare services (HRH Country Profile: Nigeria, WHO GHWA, 2018). There seems to be no indication that the migration of talented workers from developing nations to industrialized nations in the North may slow down any time soon.

Many explanations have been put forth as the primary causes of doctors leaving their home countries. "Push" and "pull" influences are among them (Melanie, 2004). The absence of or inadequate post-graduate training programmes, unhealthy work conditions, civic upheaval, and private security were all highlighted as "push" reasons (Okeke, 2013). International professional progression chances, higher cash incentives, and an improved work environment are some of the "pull" factors (Eastwood, 2005, Witt, 2009).

The supplying nation suffers two types of losses: the cost of training the physician and the worth of the foregone health and social services the physician would have provided. Even though such trends mostly benefit the persons involved, often exert detrimental socioeconomic effects on the supplying nation (Kollar, 2013 & Kirigia 2006). Recent research shows that trained health personnel are leaving Africa at a worrisome rate (Chikanda, 2006).

As a result, the delivery of health services has suffered, particularly in rural areas. In Nigeria, where worsening economic, social, and political circumstances are accelerating the migration wave, the brain drain syndrome has assumed a pivotal role. Since health professionals are fleeing to southern Africa, Western Europe, North America, and Australia in quest of better opportunities, the national healthcare delivery system is probably the most negatively impacted by the situation. The major driving forces include poor working conditions and poor salaries. While the number of active healthcare staff has not grown to allow for proper staffing of both current and prospective healthcare facilities, the COVID-19 epidemic has increased the demand for healthcare personnel and subjected them to extra hazards (Anadolu, 2020).

According to NOIPolls & Nigerian Health Watch, a study on the migration of Nigerian medical physicians found that the United Kingdom and the United States are the most popular destinations for such professionals to gain employment, with 93 per cent and 86 per cent of respondents, respectively. According to findings, 637 doctors left Nigeria in 2010, resulting in a 36% decrease in expert migration rates.

In 2019, a total of 227 doctors emigrated from Nigeria. People who reside in foreign countries are referred to as international migrants, and their number reached about 272 million in 2019 (from 258 million in 2017). 48 per cent of the international migrants were female. Across the globe, Asia accounted for 31% of all foreign migrants, followed by Europe (30%), the Americas (26%), Africa (10%), and Oceania (3%). (NOIPolls, 2019).

**1.2 Statement of the Research Problem**

A nation's strength is mostly determined by its production, which is determined by the population's well-being. The sustainability of the nations where medical experts leave has both immediate and long-term effects. Nigeria in particular has experienced massive migration of its professionals to other parts of the world due to the lack of a conducive environment for them locally. The consequence of the foregoing is the incessant migration of medical doctors, nurses, midwives, and others to developing countries where there are modern equipment and a good working environment (Buchan, 2008).

Healthcare professionals frequently leave their home nations for a variety of reasons, or "push and pull" causes. One reason Nigeria medical graduates move to the West is due to higher education: "the long-standing notion of young physicians and their parents that training outside of their native country is superior and a signal of success." the anticipation of higher earnings, the allure of super-specialization and high-tech training, Lack of employment opportunities, significant unemployment in the healthcare sector, new communication technologies like electronic medical worker recruiting, and the appalling quality of healthcare in the majority of developing nations are other causes of healthcare professionals migrating. Therefore, other countries lure Nigerian health workers to their countries (Eastwood, 2005, Witt, 2009).

**1.3 Research Questions**

1. To what extent has the migration of health workers impacted the quality of healthcare delivery in Kwara state?
2. How effective has been the health sector incentives been on health workers' performance in Kwara state?

**1.4 Objectives of the study**

This study sought to investigate the effect of health workers' migration on the sustainability of the Nigerian health sector with a particular reference to Kwara state healthcare workers. The specific objectives are to;

1. To examine the impact of migration of health workers on the quality of healthcare delivery in Kwara state.
2. To examine the effectiveness of health sector incentives on health workers' performance in Kwara state.

**1.5 Research Hypotheses**

The study hypotheses are stated as follows:

H0: Brain drain in the health sector has not led to any significant reduction in health care delivery by health workers in Kwara state.

H1: Brain drain in the health sector has led to a significant reduction in healthcare delivery by health workers in Kwara state.

H0: Health sector incentives have not led to any significant increase in the performance of health workers in Kwara state.

H1: Health sector incentives led to a significant increase in health workers’ performance in Kwara state.

**1.6 Significance of the study**

The alarming rate at which human capacity continues to be lost currently has brought to the fore issues of Brain drain and if not checked, may leave no healthcare workers left to work in the country. This study is significant for understanding health workers' migration and the sustainability of the Nigerian health sector with a particular reference to Kwara state health workers. The importance of health in the socioeconomic advancement of every society cannot be over-emphasized. The health sector is one of the indices for measuring the growth of any nation and set the agenda to mark the social well-being of the rural populace. This research will help generate a new dimension or perspective of understanding the brain drain syndrome and the effectiveness of the health sector incentives to health workers in Kwara state, Nigeria.

Similarly, the study is significant because it reveals that the gross shortage of health workers in the health sector has led to the poor delivery of healthcare services in the state to the citizens and has affected the service delivery of health practitioners. Also, the inconsistency of government incentives has mitigated further migration of health workers from the health sector. The study will help to expand the frontier of knowledge and further future research.

**1.7 Scope of the study**

The study centers on the brain drain in Nigeria and the sustainability of its health sector concerning the healthcare delivery services of health workers in Kwara state. The study area that will be considered in this research work is Kwara state. Therefore, this research will only focus on a General hospital in Omu- Aran and Teaching Hospital Ilorin which are part of government hospitals in the state and the policy maker in the health sector which are in the Ministry of Health Kwara state.

**1.8 Limitation of the study**

Certain challenges pose a difficulty to this study. Challenges such as accessing the number of health workers in the Teaching hospital Ilorin which was later overcome after passing through the ethical committee of the hospital and access was granted later on. Also accessing data from publications and other pertinent literature sources.

**1.9 Organization of Study/ Outline of Chapters**

Chapter one is the introductory part of the study which provides the background to the study, statement of the research problem, research questions, research objectives, research hypotheses, the scope of the study, the significance of the study, and research methodology as well as the data sources. Chapter Two is the Literature Review and theoretical framework. It examined the works of other scholars on the subject matter of Brain Drain among health workers and the sustainable health sector. It identifies the gap in the literature and critically provides new perspectives on the subject area.

Chapter Three is on the research methodology, this provides the research design, sources of data and the methodology to be employed. Chapter Four presents the findings and data analysis based on the field study with the questionnaires and interviews conducted. Chapter Five concludes, summarizes the study, and makes recommendations.

**1.10 Operational Definition of Terms**

In the course of this research work, the following definitions of concepts are necessary to clarify their meanings in the context of this work.

**Brain drain:**is the transnational movement of talent, and it mostly refers to the emigration of people with extremely advanced degrees from poor to industrialized nations. The word is typically employed more conservatively and refers very explicitly to the movement of technically qualified individuals with training and experience, such as engineers, doctors, and scientists.

**Migration:**Migration is defined by the United Nations Migration Agency as any movement of a people across an international boundary or within a state away from his or her current residence, despite (1) the person's legal standing, (2) the nature of the movement, (3) the reasons behind the movement, and (4) the duration of the residency.

**Immigration and Emigration:**Immigration is the act of moving permanently to another state, region, or country whereas Emigration, like immigration, refers to moving out from one country and into another with the vision of improving one's standard of living or work opportunities.

**Health worker:**Whether acting explicitly as doctors or nurses, or inadvertently as assistants, auxiliaries, medical technologists, or perhaps even hospital waste managers, a healthcare worker provides care and support to the sick and injured. About 59 million people work in the healthcare sector globally (WHO, 2016) Also People who work in the health industry engage in activities with the main goal of improving health.

This concept expands on how the WHO defines the health system as including actions whose main objective is to promote health. There are two distinct categories of healthcare professionals. The word "health service providers" refers to those who give services, whether they be private or non-personal, whereas the word "health management and support staff" refers to those who do not deliver services directly (World Health Organization 2016).

**CHAPTER TWO**

**LITERATURE REVIEW AND THEORETICAL FRAMEWORK**

**2.0 Introduction**

The review of related literature and theory was done by engaging already available scholarly works on Brain drain and Migration as it relates to the migration of health professionals, precisely, the public health sector which is under review. The extant literature consulted and reviewed was limited to the areas of concern to the study such as the historical background of Brain drain and migration in Nigeria, and the migration of health workers as it relates to Nigeria's health sector in Kwara state.

**2.1 Conceptualizing brain drain**

The British Royal Society used the phrase "brain-drain" to describe the emigration of scientists from Britain to the United States and Canada in the 1950s and 1960s (Cervantes & Guellec, 2002). Today, however, the phrase is used to refer to highly educated people leaving their nation. It is crucial to remember that in this instance, those persons mostly consist of engineers, doctors, scientists, and even other highly educated individuals with university degrees (Rapoport & Docquier, 2006). Additionally, migration often occurs from impoverished nations to industrialized nations, although there are also regular moves from rural to affluent metropolitan regions.

Also, in the 18th and 19th centuries, the country was penalized for the loss of qualified professionals and artisans who left the country. In light of this, the term "brain drain" is frequently used to describe the permanent departure of highly trained workers from developing to developed nations. This definition means that the rate is a huge deficit and permanent. This limited definition of "brain drain" has drawn criticism from several authors, particularly as it has been used in several different occurrences, such as scientists migrating from one developed nation to another. One may contend that the transfer of highly skilled individuals is mutually advantageous, in contrast to the brain drain perspective on such migration. Because of this, among developed countries, migration is viewed as a brain exchange instead of a population influx and a brain outflow (Findlay, 1993).

The brain outflow is believed to be short-lived and will shortly reverse, talented individuals, move abroad to broaden their knowledge and skills, which will be valuable when they come back to their nation. The first point that needs an answer is if and in what way the brain drain is a problem for the home country. What policies are successful in making up for the welfare loss caused in the skilled resource's home country is the second point that has to be addressed. Before we begin to address the issues mentioned above, it is critical to review the often contradictory knowledge on the issue of brain drain and its links to both technological development and educational achievement.

**2.1.1 The Concept of Brain Drain**

Brain drain among healthcare professionals is the movement of healthcare professionals to raise their living standards, generate more revenue, have more access to more sophisticated technologies, or reside in an environment with more stable democratic conditions (Dodani & La Porte, 2005). It is also known as the transfer of qualified and experienced workers from impoverished to wealthier nations (Mba & Ekeopara, 2012). In the 1970s, the term "brain drain" had come to refer to the movement of highly qualified people from poor countries to Western Europe and North America. The phenomenon has since become a divisive topic in the north-south argument (Carrington, 1999).

The World Bank's 2001 World Development Report, describe Brain drain, as the movement of highly trained workers for purposes of trade, learning, etcetera. Another definition by Encyclopedia Britannica says that Brain drain is “the exodus of educated or professional persons to another country, economic sector, or field, typically in search of higher income or better living conditions". Brain drain is a recent development of the 20th century. It could be described as the emigration of talented young persons who receive their training from one nation and then settle and work in a different country. In this instance, professionals that a nation has committed substantial resources for their education/training leave their home country to search for career prospects elsewhere. (World Bank, 2001 Development Report).

Also known as "human capital migration," it is the movement of people beyond international boundaries. To find a job, migrants relocate to nations where they do not hold nationality. Such migrants include people who don't have the nationality of the countries where they work. Furthermore, "brain drain" or "human capital flight" refers to the emigration of talented and skilled people (human capital) to another country or jurisdiction as a result of conflicts, limited opportunities, health risks that exist where they live, and other factors.

**2.1.2 Nature of Brain Drain**

Recent research on migration raises several contentious topics. Research suggests that migration is a "one-way trip" in which the home nation loses skilled workers in whose education it has invested a lot of money. The home nation is left "in the red" as a result of migrants taking their property with them. Recent studies, however, show the converse is true: highly educated migrants bring cheap costs and significant benefits to their home nations (in this case, developing countries) (Krasulja, 2016).

It was thought that the major cause of the lack of educated workers in emerging or undeveloped nations was brain drain. However, the authors of the new research mention several factors that should be considered (but cannot be linked to brain drain). First off, it should be mentioned that a variety of factors play a role in determining whether and how much a person decides to invest in their education. When it comes to the stated choice, several nations have observed very strong disincentives. People are unable to "monetize" their knowledge after they graduate due to a lack of employment opportunities, corruption in the educational system, excessively high tuition costs for private education, etc. In this case, the rules of supply and demand in the education sector cause educational systems to deteriorate significantly in terms of quality. Consequently, brain drain can be considered a problem, but only in part (Clemens, 2013).

The costs of the nation losing competent workers, or experiencing a brain-drain, are significantly lower than previously thought, claim researchers and writers. For instance, the home nation has lost almost $2 billion due to the brain drain of doctors from Africa (the Sahara area). On the other hand, the OECD nations have invested 206 billion dollars in the development of the same region during the last five or six years (Mills et al., 2011).

**2.1.3 Reasons for Nigeria's Brain Drain**

The essential and serious query is: Why do Nigerian academics and professionals move or strongly considered leaving the nation? A significant portion of Nigeria's brightest minds has left the country for several other countries in the world for many reasons (especially in the Western world). Past and contemporary research shows that the average challenging economic environment wherein the majority of elites and experts work is a major factor in the extensive professional migration from Nigeria. Then is the urge to visit nations that would reward and make use of their skillset (Adebayo, 2010). However, we must acknowledge the psychological, political and social anxieties that drive Nigerian intellectuals and talents to relocate in search of more conducive environments for work and livelihood. Therefore, it is no surprise that they take advantage of better opportunities in other nations when such opportunity arises.

According to this research, the structural inconsistencies in the host economy and the foreign incentives from developed countries are what drive the brain drain in Nigeria. Analysts have easily divided this driving force behind migration flows further into a pull and push causes (Dovlo 2003; Dzimbo 2003). The pull factors represent the favourable conditions in the advanced nations that allure skilled personnel in their emerging economies to retain their competitive advantage in the global arena. Conversely, the push factors represent national discrepancies that generated the essential justification for skilled people to move to another country. According to Dzimbo (2003), environmental, political, and economic variables influence push factors whereas economic reason alone can result in pull forces.

The emphasis seems to be on the fact that these macroeconomic variations tend to safeguard the dominance of the advanced nation in the global economic structure, which in turn serves as the primary motivation for the strategic policies they implement. However, such distinctions do not provide a complete picture or a clear explanation of the complicated conditions that stimulate brain drain.

Stronger economic expectations (particularly improved employment prospects as well as better pay), a better quality of life, better access to resources required for accomplishing career development, sufficient value for academic and professional achievement, and good opportunities for lifelong learning are among the pull factors. Others include the provision of significant research grants, freedom of thought, quality service standards, sociopolitical stability, the reputation of overseas training, and improved research labs.

**2.2 The Concept of Migration**

Simply put, migration is the process of individuals moving from one part of a country (or one country) to another part of the same country (or to another country) to create a new domicile (IOM, 2011; ACP Observatory on Migration, 2011). Although the concept of migration is construed from diverse perspectives, there seems to be a general opinion that migration entails the mobility of people beyond an established political frontier to secure a permanent or semi-permanent residence.

The word "migrant" and "international migrant" are sometimes used synonymously. Although "migrant" is a phrase that refers to anyone who relocates from their customary domicile to a more comfortable location (within or outside the borders of his country of birth).  Economic, political and social structures, as well as academic motivations, may all be considered in the movement. Others might be the consequence of infrastructure development projects, violence, or environmental disasters. Upon crossing the geographical border, the stable and enduring flow of individuals is considered immigration and emigration in-migration and out-migration. The recipient community is the area where immigration occurs and the sending nation is the area where emigration occurs.

**2.2.1 Types of Migration**

Demographers distinguish between two categories of migration:

1. Internal migration: internal migration is often known as moving within just a nation's territory (across states, regions, towns, or localities). For instance, moving from Lagos to Anambra. An individual that relocates to a new administrative jurisdiction is said to be an internal migrant.
2. International migration is the term for moving across national borders, such as moving from Nigeria to the USA. Anyone who relocates to another country is considered an international migrant. International migrants can also be divided into three categories: refugees, legal immigrants, and illegal immigrants. Refugees are individuals who have fled outside their national borders to seek asylum. On the other hand, legal immigrants are people who relocated after obtaining legal consent from the receiving nations, whereas illegal immigrants are persons who relocated without any legal consent from the recipient nations.

International migrants are often defined as people who are legally described as having emigrated from their birthplace to some other country due to one or all of the aforementioned reasons. (Ifedi, & Ezechi, 2019). A third category—forced migration is mentioned by Weinstein, Jay, and Pillai, (2001). The authors opine that where someone is moved without their consent (as with slaves), and whenever the movement is instigated by external forces (civil war or natural disaster), it is regarded as forced migration.

It is important to distinguish between international and domestic migration since both occur for specific reasons. The motives for international migration are typically quite more powerful than domestic migration. Structural barriers are often more likely to restrain the movement of prospective international migrants, unlike internal migrants. Moreover, international movement usually includes more approval processes and procedures, tremendous costs, and much more complexities relating to job opportunities, access to social programmes, second language learning, and other similar tasks (Weeks 1999).

**2.2.2 Immigration and Emigration**

Further definitions are given for other important concepts, immigration and emigration. One of the most frequently used expressions, immigration, is described as the act of moving permanently to another country. Immigration has always benefited many nations across the globe, in terms of cultural, economic, social and cultural dimensions. Different multicultural communities have been established as a result of the immigration trend in the history of mankind. Immigration has contributed to the dispersal of various cultures and the infusion of individuals from various racial and ethnic affinities, which improved the culture of certain nations like the US. The refugees’ movement at the end of World War II was also a major factor in the subsequent massive increase in immigration. More so, immigration surged during the 1950s and 1960s as a result of the decline of African and Asian colonialism. A lot of people moved to France and the UK.

For instance, citizens of the erstwhile Commonwealth empires were given British citizenship via the British Nationality Act of 1948. Just after World War 11, guest workers and immigrants who served in the country's production, transportation, and healthcare were crucial to the reconstruction of the continent's economy. However, the situation was not pleasant for immigrants, due to prejudice. The minority populations and racial communities were marginalized in several states and territories in the United States. Some states attempted to address the social marginalization of immigrants by limiting immigration. From another perspective, many states prioritized citizenship as a means of bringing diverse cultures together. Due to this, people who are awarded citizenship must pledge allegiance or loyalty to their new nation.

Immigration and citizenship are intimately intertwined, as are the social and political privileges granted to citizens. Governments retain control over their national boundaries so they can count and keep track of the amount of immigration. They have varying levels of authority over territorial frontiers. For instance, nations in Europe ratified the Schengen Agreement in 1985. The treaty allowed citizens of the signatory governments to easily move beyond national boundaries.

The European Union (EU) adopted its immigration and asylum legislation in 1999. In addition to having the ability to receive social welfare services, the legislation granted citizens of the European Economic Area the freedom to live, work, and travel to any of the EU member states (Racoma, 2018). Similar to immigration, emigration refers to moving from one country's territorial boundaries to another. Improving one’s self-standard of living or career prospects is among the primary motivations for emigration. The economic conditions of the nations that individuals choose as newfound permanent residence is affected by emigration favourably and unfavourably.

* + 1. **Causes of Migration/Push and Pull Factors**

There are many various reasons why people move. These explanations fall into one of four categories: Economic, political, social, or environmental causes.

1. Economic migration- refers to making movement instigated by financial reasons such as pursuing better employment opportunities or a specific career choice.
2. Political migration – the act of mobility aimed at avoiding political oppression or conflict.
3. Social migration - is the act of relocation motivated by sociological factors such as a higher standard of living or to be nearer to family or friends.
4. Environmental migration- these are acts of movement based on ecological issues such as earthquakes, landslides, tsunamis, and other extreme weather events including hurricanes, floods, drought, volcanoes, and others.

Sometimes migrants come voluntarily, such as those who relocate abroad to increase their employment prospects, whereas others are compelled to do so for various reasons, such as conflict or food insecurity. Anyone who has fled his homeland and lacks a suitable home is considered a refugee. Refugees frequently need not bring significant belongings along as they journey and are unsure of their ultimate destination. The "push-pull paradigm" is frequently used to assess migration. It examines the push factors-such as financial, psychological, or political circumstances that motivate people to move out of their home countries and the pull ones that draw people to their target destinations.

1. **Pull (external) Factors**

The attractive circumstances in the targeted destinations that encourage African doctors to relocate overseas are explained by pull considerations. These include, amongst many other reasons, desirable compensation, lesser social security, organizational control and a better standard of living. These "pull" factors are what advanced economies have to offer, which are often regarded as "greener pastures" by African professionals (Keese, 2001). The recipient nations profit from the inflow of doctors, despite that they did not invest in their education and training.

1. **Push (internal) factors**

The push forces are the adverse circumstances in Africa that prompt doctors to migrate. A significant driving force behind the expanding brain drain phenomenon in Africa is socioeconomic realities. Other elements include; unemployment and under-employment occasioned by the rising annual turnout of physicians from an increasing number of government and privately owned medical colleges, poor remuneration, criminal activities, insurgencies, political persecution, human rights violations, currency depreciation, sub-standard education context, religious conflicts, cultural and ethnic personality clashes, overstretched facilities, bad leadership, a poor reward system for dedicated manpower, as well as poor resource management.

Most migration occurs as a consequence of a composite of these push and pulls forces. Most immigrants move across developing nations to industrialized economies. International and domestic migrations have significant impacts on economic advancement, which may be favourable or unfavourable. For example: Whenever a large number of skilled individuals relocate to another country in search of job opportunities or to start new businesses, this is known as brain drain.

The residual citizens may lack the necessary skills to advance industries, academics, and other economic areas. Therefore, it damages the economies of developing nations. Deskilling happens when skilled migrants accept menial jobs abroad. Brain gain could be accomplished by utilizing people who temporarily migrated abroad and returned to their home countries after acquiring new skills overseas. The exposition on the phrase "brain drain,” is now more comprehensive.

**Table 2.1 Factors Influencing the Emigration of Health Workers in Nigeria**

|  |  |
| --- | --- |
| **Pull Factors** | **Push Factors** |
| Attractive remuneration | Low remuneration and unemployment |
| Adequate infrastructure | Overburdened infrastructure |
| High employment opportunities | Unemployment |
| Good leadership | Poor leadership |
| Availability of advanced medical technologies | Unavailability of advanced medical technologies |
| Steady security | Insecurity (violence, crimes, religious conflict, etc.) |
| Provision of research funding | Lack of research funding |
| Provision of research facilities | Poor research facilities |

## Health sector

One of the main sectors negatively impacted by the massive exodus of medical personnel in Nigeria is the healthcare sector. The health sector in Nigeria is essentially devoid of the acceptable proportion of skilled health officials that is required to deliver optimum healthcare to the nation's overflowing population as the majority of highly qualified medical professionals have moved to other nations. Uneke *et al.* (2008) report that approximately 347 Nigerian nurses entered the United Kingdom legitimately between April 2000 and March 2001.

Thus, Nigeria is deprived of access to essential medical services, while the West and oil-rich Middle East countries are the biggest benefactors (Mbanefoh, 2007). Since the health sector is a crucial component of Nigerian society, it is vulnerable to its whims. The decline of human capital in the healthcare system in Nigeria has been attributed to the same combination of internal and external forces of the push, pull, and aspiration dynamics.

The impact of the health sector's loss of human capital may be visible in the nation's growing incapacity to control several health problems that lower life expectancy in Nigeria. The exodus of medical talent is not unique to Nigeria. It has become a norm in all African nations. Due to the obvious severity of the issue, Dr Lalla Ben Barka made the ominous prediction that "Africa will be devoid of brains in the next 25 years" (Mbanefoh, 2007).

## Theoretical Framework-****The Rational Choice Theory****

## The classic explanation of the rational choice theory, is the philosophical position that is predicated that people select actions that mostly align with their individual preferences. The theory is often used to replicate individual judgement, particularly in microeconomic contexts. It aids economic experts in understanding how individuals behave in society and how their decisions are coherent since they are based on individual preferences. The rational choice theory has been employed in a growing number of disciplines, such as evolutionary science, political science, and conflict studies (Becker, 1976).

## The rational choice theory is credited to the philosopher, Adams Smith as its proponent. In his 1776 essay, "An Inquiry into the Nature and Causes of the Wealth of Nations", Smith proposed the idea that wealth is a product of humanity's greatest propensity for self-interest. The inspiration for his composition was drawn from Thomas Hobbes' "Leviathan" (1651), a book of philosophy. Although it is claimed that rational choice emerged as a result of the behavioural movement in American political discourse in the 1950s and 1960s, which attempted to identify human behaviour through empirical evidence.

## The theory has grown in popularity as a political science paradigm, particularly in the United States. The rational choice theory was originally applied to voting behaviour and political rivalry by Anthony Downs in 1957. His research, which was discussed in Hinich and Munger (1997), substantially revolutionized voting research. Among other domains, the rational choice theory has diverged from Downs' writings in the realms of group efforts and personal choices (Ogu, 2013). According to Abell (2000) the Rational Choice Theory presumes that People make rational decisions for themselves and not for others. People want to limit their losses and maximize their potential benefits.

## Depending on their specific interests and the possibilities or limits they encountered, people make the best decisions possible when considering what to do. Optimality, according to Abell (2000), occurs when no alternative route of social action is preferable by the person over the action they have selected. This would not imply that perhaps the person’s choice of conduct is the best measure of unbiased external evaluation. Thus, the rational choice theory presupposes that people do the best they can, based on the circumstances they find themselves (Abell, 2000).

**Application of Rational Choice Theory to the study**

Rational choice theory is very essential in the analysis of this research work as it provides a more balanced platform from which one can view the economics and social behaviour of an individual as a rational choice. Therefore, "rational choice theory" refers to a broad range of variables that predicts human behaviours as the results of individual activity which can be considered to be reasonable in certain situations. "Rational behaviour" is thus, the behaviour that is appropriate for achieving desired objectives considering the constraints occasioned by the circumstances (Wittek, 2013). Therefore, individual preferences and restrictions are the fundamental components of any rational choice proposition

Preferences are the positive or negative assessments people make about the potential results of their behaviours. Preferences can arise from a variety of sources, such as economics, the standard of living, a good working environment, quality education, and professional mentoring. Individual preference can be linked to the circumstance that motivates the emigration of healthcare workers which are majorly the push factors in the country of their residence.

Beliefs about anticipated cause-and-effect relationships, such as the chances that a person's behaviour will have a particular outcome. For instance, health workers may think that leaving the country (A) has better chances of improved living conditions, and career success than staying in country B. most people have this belief that until they leave their country of residence in other western countries there is no chance for their breakthrough.

Constraints are limitations to a collection of acceptable actions (e.g., the income level that someone can get imposes a budget constraint on considerations about purchasing a house, car, food, and shelter). Constraints in this content connote the economic system, infrastructures, welfare packages, security, etc. an individual is being constrained by the low wages that the country's economy is providing which cannot sustain the family. Also, the bad infrastructures and working environment are not too encouraging for research works. Not to talk of the insecurity in the country which is affecting the citizens.

Additionally, the much-lauded push-pull framework contains Ravenstein's rules, which, in an unstated manner, integrated personal rational-choice theory within the larger frameworks of sparsely populated and development inequities. This straightforward, even oversimplified model views migration as being influenced by both push and pull influences, which operate from the regional or home country (poverty, unemployment, landlessness, population increase, political violence, low socio-economic status, poor marriage opportunities, etc.) and the destination (good employment prospects and remuneration, quality education and social welfare systems, access to land, good environment and quality of life etc. (Ravenstein, 1889).

**CHAPTER THREE**

**METHODOLOGY**

**3.0 Introduction**

This chapter contains the procedure for systematization (research and layout) and the instrumentation that was used to collect and analyze data. In other words, this chapter encompasses the research design, the study area, the method of data collection and analysis, the validity and reliability of the research instrument and the ethical procedures observed in the course of the study.

**3.1 Research Design**

This study employs a survey design, using both quantitative and qualitative methodologies. While a structured questionnaire is used to address the research questions of this research, a key informant interview was used to further probe the research questions, using a face-to-face semi-structured interview technique. Thus, this research adopted a mixed-methods of data collection and analysis. The importance of using a mixed method is that it gives credibility to the research work. Data for this study was gathered from both primary and secondary sources. The choice to perform a study is often guided by the relevant research questions (Luhm, Harman, Lee, & Mitchell, 2010).

**3.2 Study Area**

The geographical area considered in this research is Kwara state, situated in North-Central, Nigeria. It comprises sixteen local governments and has about 135 government hospitals all over the states which comprise (14) general hospitals, (3) specialist hospitals, (1) teaching hospitals, (19) comprehensive Health centres, (26) Cottage hospitals, (1) Dental clinic, and (80) Local government Health institutions (Rotimi, 2010). Therefore, this research focused on a General Hospital and a Teaching Hospital which are government-owned and controlled hospitals in the state as well as the policymakers who are officials of the Kwara state Ministry of Health.

**3.3 Methods of Data Collection**

This research work utilized both primary and secondary data. Secondary data is defined as information gathered from a source besides the user (Schutt, 2006). Census data, reports of government agencies, organizational records, and data gathered primarily for other empirical studies are all popular sources of secondary data in the social sciences. The secondary source of data for this research work will be gathered from online sources, newspapers, articles, journals, and textbooks. The researcher designed an interview question and a structured questionnaire based on the Likert scale included in (Appendix One and Two) as the instrument for data collection.

A structured questionnaire was used to generate numerical data for the quantitative study, starting with applicable demographic values. The questionnaire has 2 sections and was designed to address the two hypotheses which are coherent with the two objectives of the study. Additionally, Yin (2013) recommended the triangulation of evidence the utilization of several sources to produce construct validity and reliability tests.

The primary data was gathered through the use of questionnaires which were distributed to health workers (doctors, nurses, midwives, lab scientists, lab technicians, pharmacists, radiologists, and others) in selected government hospitals in Kwara state, questionnaires were printed on paper. Also, Directors in the Ministry of Health Kwara state were the ones interviewed for the Key informant interviews. The researcher will seek permission from the managing director of the health institutions before administering the questions.

**3.4 Sampling Technique**

The research adopted the multi-stage sampling procedure. More so, both purposive and simple random sampling techniques were employed for data collection. Purposive sampling techniques and Simple random is used to represent the entire data population. Also, the Taro Yamani formula was used to determine the sample size from the study population 1476 health workers in Teaching Hospital Ilorin and 45 health workers in General hospital Omu-Aran. The Taro Yamani formula states that;

n = N/1 + N (0.05) 2.

N= Population of study

K=Constant (1)

e=degree of error

n=sample size

n = N

K+N (e) ^2

1521

1+1521(0.05) ^2

1521

1+1521(0.0025000000000000005)

1521

1+3.8025000000000007)

1521

4.80250000000000

n = 317

Based on this calculation, the sample size or the study was 317 respondents.

## 3.5 Methods of Data Analysis

Data analysis is the act of taking a decision based on available data (Merriam, 2014). This consists of gathering, collating, and interpreting data from interviews and questionnaires. This research work employed both descriptive and inferential analysis methods to assess the quantitative data. The descriptive method is a data analysis technique common in a quantitative study, using percentiles and frequency values. Statistical analysis was done using utilizing the 64-bit edition of the IBM SPSS Statistics version 22, Release 22.0.0.0.

While the interview questions were analyzed through a discourse analysis approach. Discourse analysis involves the study of naturally occurring language in any social context; categorizing quotes into major themes, considering the actual words used, and the way the words were expressed. The rundown of the research design is represented in Table 3.1.

**3.6 Validity and Reliability of the Study**

The validity of a research instrument is the extent to which the instrument reflects the set of test objects. The validity of the information used in this analysis is a measure of the degree to which a specific domain or information of a specific definition reflects the data obtained using a particular instrument. The investigator, therefore, sought the views of the supervisor of the analysis to assess the validity of the test instrument.

Reliability of the research instrument denotes the precision of the measurement of stated objectives using the instrument. It is also tested with the test-retest reliability technique. To ensure reliability, various groups of participants are evaluated, by placing numerous related elements on a scale, and standardized evaluation procedures.

The clarity of the elements was designed for the participants to increase the validity and reliability of the instrument. The pilot investigation allowed the researcher to acquire knowledge about the study area and the process of administering the instrument as well as identifying any item in the instrument that requires an alteration in line with the research objectives. The outcome enables the researcher to resolve the contradictions resulting from the instruments, which meant that it calculated what was expected.

**Table 3.2 Reliability Test**

|  |  |  |
| --- | --- | --- |
| Cronbach’s Alpha | Cronbach’s Alpha based on Standardized Items | No of Items |
| 0.886 | 0.898 | 28 |

***Source: Authors, 2022***

Table 3.2 shows Cronbach’s Alpha Coefficient. This gauges the internal consistency and reliability of the data generated from the Likert Scale. The general guideline is that higher scores on the scale are perceived as having greater confidence in the measurement. The above score is 0.898, measuring 28 items that are above 0.7. Therefore, it could be concluded that the internal consistency of the scales used in the questionnaire is good, making the research instrument reliable.

**3.7 Ethical Consideration**

Ethics is the cornerstone for directing efficient and significant research studies. As a result, individual researchers' ethical conduct is closely monitored (Trimble & Fisher, 2006). It is required that educational researchers reverence the rights, privacy, dignity, and sensitivity of their research populations along with the honesty of the respondents within the research. Thus, the researcher made sure that respondents are informed about the background and reason behind the research.

Three principles guided the ethical consideration for this research, they include; principle of informed consent, confidentiality, and objectivity. Foremost, when a subject gives their informed consent, it indicates they have received sufficient information about the type of data the researcher is seeking, the objective for which it is needed, and how it will contribute to improving their situation both directly or indirectly. It means that the participant voluntarily agrees to participate in the research having substantially understood what the research involves (Kumar, 2011; Haralambos & Holborn, 2008).

The research instrument of this study has an attached introduction letter from the researcher’s institution to inform prospective respondents of the focus and purpose of the study and justify its relevance, to ensure that their participation is willful. Secondly, the principle of confidentiality ensures that the researcher does not reveal details of the respondents for other purposes other than research. This involves maintaining the anonymity of the participant in other not to directly identify the source of the data collected. The research instrument used in this study was void of sensitive personal details such as names and addresses.

Lastly, this study aligns with the principle of research objectivity. This refers to ensuring that the information obtained through this study follows an objective, scientific process to avoid bias or distortions in the information. In this study, an effort was made to abide by a scientific research process, using appropriate methods, and systematically presenting the results of the study.

**CHAPTER FOUR**

**DATA ANALYSIS, PRESENTATION OF RESULTS AND INTERPRETATION**

* 1. **Introduction**

The findings from the interviews carried out by the researcher and the data collected from the questionnaires administered are presented in this chapter.

**4.2 Results of Questionnaire Survey**

For the quantitative study, the respondents' sociodemographic variables including age-groups, gender, marital status, and area of specialization are illustrated in Table 4.1 below

**Table 4.1: Respondents’ Demographic Characteristic**

|  |  |  |
| --- | --- | --- |
| **Variables** | **Frequency (F= 331)** | **Percentage (%)** |
| **Sex** |  |  |
| Male | 130 | 39.3 |
| Female | 201 | 60.7 |
| **Total** | 331 | 100 |
| **Marital status** |  |  |
| Single | 126 | 38.1 |
| Married | 205 | 61.9 |
| **Total** | 331 | 100 |
| **Age** |  |  |
| Below 21 years | 8 | 2.4 |
| 22-30 years | 139 | 42.0 |
| 31-40 years | 122 | 36.9 |
| 41 years and above | 62 | 18.7 |
| **Total** | 331 | 100 |
| **Speciality** |  |  |
| Doctor | 51 | 15.4 |
| Nurse | 65 | 19.6 |
| Midwife | 42 | 12.7 |
| Lab Scientist | 56 | 16.9 |
| Lab Technician | 7 | 2.1 |
| Pharmacist | 43 | 13.0 |
| Radiology | 7 | 2.1 |
| Others | 60 | 18.1 |
| **Total** | 331 | 100 |

***Source: Author, 2022.***

The tables above presented the demographic data of all respondents for the quantitative study. Most of the respondents (61%) are female; while 39.3% are male. This reveals to us that majority of health workers are female compared to the male which is few. The health workers were also asked about their marital status Results show that 61.9% are married and 38.1% are single. The result of the study also asked the respondents to indicate their age range in the questionnaire. The largest %age of the respondents was 42% and it was shared between 22-30 years. The age range of 31-40 years accounted for 36.9% of the respondents, while 41 and above account for 18.7%.

Finally, the occupational specialty of the respondents was captured for this study. The results presented shows that 20% of the health workers are Nurses, 15.4% of the respondents are Doctors, lab scientist represented 17% while Other specialties represented are 18.1%.

**Table 4. 2 Respondent Profile**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Institutional affiliation** | **Position of Office** | **Assigned codes** | **Cadre/**  **Level** | **Age Grade** |
| Federal Ministry of Health Kwara state | Director of Nursing & Midwifery services | R1 | Level 15 | Adult |
| Federal Ministry of Health Kwara state | Director of Public Health services | R2 | Level 17 | Adult |
| Federal Ministry of Health Kwara state | Director of Food & Drugs services | R3 | Level 17 | Adult |
| Federal Ministry of Health Kwara state | Director Medical Training services | R4 | Level 15 | Adult |
|  | **Total** | **4** |  |  |

***Source: Authors, 2022***

**4.3 Health Workers Migration and Quality Healthcare Services**

Respondents were asked what they think about the migration of health workers and its effect on reducing the quality of health care delivery in Kwara state. 80.4% reported that migration has reduced the quality of healthcare services, while 19.6% believe that it has not affected service delivery of healthcare. See Table 4.3 below.

**Table 4.3 Quality of Healthcare Services**

|  |  |  |
| --- | --- | --- |
| **Do you think the migration of health workers has reduced the quality of healthcare delivery in Kwara state** | | |
|  | Frequency | % |
| Yes | 266 | 80.4 |
| No | 65 | 19.6 |
| Total | 331 | 100 |

## *Source: Authors, 2022*

## In the same vein, respondents were asked that the increase in migration has resulted in poor delivery of healthcare services to the citizens, 43.2% of the respondents strongly agree with the fact that migration has resulted in poor delivery of healthcare services and only 12.4% disagreed.

## Table 4.4 Poor delivery of healthcare services

|  |  |  |
| --- | --- | --- |
| **The increase in migration of health workers has resulted in poor delivery of healthcare to the citizen.** | | |
|  | Frequency | % |
| Strongly Disagree | 3 | .9 |
| Disagree | 41 | 12.4 |
| Neutral | 21 | 6.3 |
| Agree | 123 | 37.2 |
| Strongly Agreed | 143 | 43.2 |
| Total | 331 | 100 |

## *Source: Authors, 2022*

Probing further on the quality of healthcare services in the course of the interview respondents R1, R2, R3 & R4 affirms that there has been a drastic reduction among health workers in the state, therefore has reduced the quality of healthcare delivery workers. Also, the work has been overwhelming for the remaining health workers which have resulted in the poor delivery of services.

“*It has affected the delivery of healthcare services because the numbers of nurses that are presently working are very few compare to the numbers of the populace. “It is also affecting the system in the way that those that are on the ground are overwhelmed with work, which we call burnout, work that ten people are supposed to do. You find out that it may be only two people that are available to do that work. Then the quality of service the two people cannot provide the quality of healthcare services that you expect. So the quality of care in terms of service delivery is reduced, then the staff are overworked, which is burnout”*

## Table 4.5 Increase in Workload of health workers

|  |  |  |
| --- | --- | --- |
| **There has been an increase in the workload of health workers who are still in the health system.** | | |
|  | Frequency | % |
| Strongly Disagree | 1 | .3 |
| Disagree | 15 | 4.5 |
| Neutral | 25 | 7.6 |
| Agree | 97 | 29.3 |
| Strongly Agreed | 193 | 58.3 |
| Total | 331 | 100 |

## *Source: Authors, 2022*

The narrative above suggested that there is still health care service but it is not as robust and as buoyant as it should be. The services are still being provided, but what they are saying is that if they have more manpower, service delivery will be better and greater. It is not that there are no services but the quality of service has reduced drastically and it is affecting the service delivery.

**4.4.1 Test of Hypothesis One**

Hypothesis one: Multiple regression was statistically tested to determine if there is a correlation between the independent variable (i.e., brain drain in the healthcare sector) and dependent variable (health care delivery), (ii) to investigate the strength of the relationship (iii) examine the significant predictor of the variables and lastly (iv) examine the substantial influence of the variables under study.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table 4.6.1 Model Summary | | | | | | | | | | |
| Model | | R | | R Square | | | Adjusted R Square | | Std. Error of the Estimate | |
| 1 | | .255a | | .065 | | | .062 | | .45311 | |
| a. Predictors: (Constant), WM | | | | | | | | | | |
| Table 4.6.1 above demonstrates that variability in the independent variable accounts for 25.5% of the variation in the dependent variable. This shows there is a link between the independent variable (brain drain in the health sector) and healthcare delivery. This is a strong relationship. The table also shows that the effects premised by brain drain in the health sector are responsible for 6.2% of changes in health care delivery.  Table 4.6.2 ANOVAa | | | | | | | | | | | |
| Model | | | Sum of Squares | | Df | Mean Square | | F | | Sig. | |
| 1 | Regression | | 4.715 | | 1 | 4.715 | | 22.966 | | .000b | |
| Residual | | 67.546 | | 329 | .205 | |  | |  | |
| Total | | 72.261 | | 330 |  | |  | |  | |
| a. Dependent Variable: QHD | | | | | | | | | | | |
| b. Predictors: (Constant), WM | | | | | | | | | | | |

The ANOVA table above depicts the statistical significance level of 0.00, that is, below 0.05. Furthermore, the F value is 22.966 at .000b significance level, and therefore, we reject the null hypothesis that says: Brain drains in the health sector have not led to any significant reduction in health care delivery by health workers in Kwara state. We, therefore, conclude that brain drains in the health sector have led to a significant reduction in health care delivery by health workers in Kwara state.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Table 4.6.3 *Coefficientsa* | | | | | | |
| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
| B | Std. Error | Beta |
| 1 | (Constant) | 2.420 | .155 |  | 15.578 | .000 |
| WM | .178 | .037 | .255 | 4.792 | .000 |
| 1. Dependent Variable: QHD | | | | | | |

In the above table 4.6.3, the standardized coefficient shows that the two variables (Independent and dependent) have a positive association with one another. Thus, a unit variation in the independent variable (Brain drains in the healthcare sector) would bring about a .255 change in healthcare delivery by health workers in Kwara state. The significant value is 0.000 which is below the 0.05 significance value. It was then concluded that the relationship is significant.

By looking at the significance column in the table and verifying the model for multi-collinearity, the coefficient table illustrates the degree to which variables used in this study contributed to predicting the dependent variable. For a two-sided test, the absolute value of the test statistics (T) had to be larger than or equal to the critical value of 1.96 for the significant value to be considered significant. The model shows that Brain drains in the health sector had statistical significance in predicting health care delivery by health workers in Kwara state with high beta values (*beta* = .255) with Tval (4.792) above 1.96, sig .000 p < .05).

These imply that the Brain drains in the health sector explain the change in healthcare delivery by health workers in Kwara state. This indicates that each unit increase in Brain drains in the health sector would bring about .255-unit increases respectively in the reduction of healthcare delivery by health workers in Kwara state.

**Result:**The significance value of less than0.05 suggests that the statistical confidence level is more than 95%. This implies that the presence of Brain drains in the health sector affects healthcare delivery by health workers in Kwara state. Thus, the null hypothesis (H0) was rejected, while the alternate hypothesis (H1) which says Brain drains in the health sector led to a significant reduction in health care delivery by health workers in Kwara state was accepted.

## 4.5 Government Incentives for Health workers

Most of the respondents 69.2% reported that there are no government incentives for health workers while 30.2% claimed that there are government incentives in the state. Also, respondents interviewed affirmed that there are government incentives; “*We have call duty allowance for nurses, we have shift duty allowance, the hazard allowance and the rural posting allowance”.*

**Table 4.7 Health workers Incentives**

|  |  |  |
| --- | --- | --- |
| **Are there any government incentives for health workers in Kwara state?** | | |
|  | Frequency | % |
| Yes | 102 | 30.8 |
| No | 229 | 69.2 |
| Total | 331 | 100 |

## *Source: Authors, 2022*

In the same vein, respondents were asked how effective all these government incentives mentioned above. 44.4% of the respondent claimed that government incentives are Not Effective; only 8.8% affirms that they are effective, while 19.9% are neutral.

## Table 4.8 Effectiveness of Government Incentives

|  |  |  |
| --- | --- | --- |
| **How effective has been the government incentives for health workers in Kwara state.** | | |
|  | Frequency | % |
| Not Effective | 147 | 44.4 |
| Ineffective | 68 | 20.5 |
| Neutral | 66 | 19.9 |
| Effective | 29 | 8.8 |
| Highly Effective | 21 | 6.3 |
| Total | 331 | 100 |

## *Source: Authors, 2022*

Probing further in the course of the interview respondents were asked if there are benefits/ incentives put in place by the government but are not yet implemented. 36.3% of the respondents reported that there are no other incentives enjoyed by them except for their monthly salaries. R1 & R2, affirm that:

*Government are not providing anything except for the incentives that are on the ground i.e. the call duty allowance, the shift duty allowance and the hazard allowance” While other comments that there are incentives proposed but not yet implemented “the retirement age, ages for doctors to retire and the rural posting allowance for those that are been posted to the rural areas.*

**Table 4.9 Incentives that are not implemented**

|  |  |  |
| --- | --- | --- |
| **Are there measures put in place to increase incentives for health workers.** | | |
|  | Frequency | % |
| Strongly Disagree | 66 | 19.9 |
| Disagree | 120 | 36.3 |
| Neutral | 92 | 27.8 |
| Agree | 24 | 7.3 |
| Strongly Agreed | 29 | 8.8 |
| Total | 331 | 100 |

## *Source: Authors, 2022*

This narrative suggests that even though there are incentives due to the inflation of the country's economy it is not showing that there are incentives for the health workers take for example a doctor that is operating on an HIV AIDS patient, the prophylaxis drug for HIV AIDS is close to eight thousand naira and the hazard allowance give to the doctor is eight thousand which cannot even buy the drug.

**4.6 Research Hypothesis Two**

Hypothesis Two was statistically analyzed utilizing multiple regression to determine if there is any association between the variables and (ii) evaluate the strength of the correlation between the independent variable (incentives from the health sector) and the dependent variable (health workers' performance); (iii) determine the predictors' significance of the variables, and lastly (iv) evaluate the substantial influence of these variables in the study.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table 4.10.1 *Model Summary* | | | | |
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .413a | .170 | .168 | .70515 |
| a. Predictors: (Constant), EHSI | | | | |

Table 4.10.1 above shows that variability in the dependent variable is represented by a 17% variation in the independent variable. This shows that there is a significant association between the independent variable (The health sector’s incentives to health workers**)** and health workers’ performance. This is a strong relationship. The table also shows that the effects premised by Health sector incentives are responsible for 16.8% of changes in health care delivery.

The ANOVA Table below shows that the statistical significance value of 0.00, that is below 0.05. Furthermore, the F value is 67.494 at .000b significance level, and therefore, we reject the null hypothesis that says:  Incentives from the health sector do not lead to any significant increase in health workers’ performance of health workers in Kwara state.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Table 4.10.2 *ANOVAa*** | | | | | | |
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 33.561 | 1 | 33.561 | 67.494 | .000b |
| Residual | 163.591 | 329 | .497 |  |  |
| Total | 197.151 | 330 |  |  |  |
| a. Dependent Variable: HWP | | | | | | |
| b. Predictors: (Constant), EHSI | | | | | | |

Therefore, it was concluded that Health sector incentives result in a significant increase in workers’ performance in Kwara health state.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Table 4.10.3 *Coefficientsa* | | | | | | |
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| B | Std. Error | Beta |
| 1 | (Constant) | 2.571 | .104 |  | 24.629 | .000 |
| EHSI | .340 | .041 | .413 | 8.215 | .000 |
| a. Dependent Variable: HWP | | | | | | |

Table 4.10.3 depicts the standardized coefficient demonstrating a positive correlation between the independent and dependent variables. Therefore, a unit change in the independent variable (Health sector incentives) would bring about a .041 change in health workers’ performance in Kwara state. The significant value is 0.000, below the critical value of 0.05. It was then concluded that the variable is significant.

Looking at the sig column in the table and reviewing the model for multi-collinearity, the coefficient table above shows the degree to which variables used in this study contribute to predicting the dependent variable. For a two-sided test, the absolute value of the test statistics (T) had to be equal to or greater than the critical value of 1.96 for the value to be considered significant.

The model shows that health sector incentives had statistical significance in predicting health workers’ performance in Kwara state with high beta values (*beta* = .413) with Tval (8.215) more than 1.96, sig.000 p < .05).

This indicates that the health sector incentives explain the change in health workers’ performance. It suggests that a unit increase in health sector incentives would result in .413-unit increases in health workers’ performance.

**Result:**The significance value of less than 0.05 suggests that the statistical confidence is greater than 95%. This suggests that the use of incentives by the health sector influences health workers’ performance in Kwara state. Hence, the null hypothesis (H0) was rejected, whereas the alternate hypothesis (H1) which says Health sector incentives lead to a significant increase in health workers’ performance in Kwara state was accepted.

## 4.7. Findings and Discussion

This study was interested in understanding Brain Drain among health workers and sustainable health sectors, which focuses on government hospitals in the state. Therefore, this research work has led to certain findings which are discussed in this section concerning the research objectives formulated for this study; (1) to determine the impact of migration of health workers on the delivery of healthcare in Kwara state; (2) to examine the effectiveness of health sector incentives on health workers in Kwara state. Analyzing the collected data on each objective, the following results were revealed.

On the first objective which was to determine the impact of migration of health workers on the delivery of healthcare in Kwara state, it was discovered that 80.4% of the respondents think that the emigration of health workers has reduced the quality of healthcare delivery in Kwara state. While 81.0% of respondents strongly agreed that the Brain Drain of health professionals to other countries is a common phenomenon in Nigeria's health sector. Also, research carried out demonstrates that 43.2% of the sampled respondents strongly agreed that the increase in health workers' migration has brought about poor healthcare delivery to the citizens. Which has also affected the workload of health workers who are still in the health system.

Still, the first objective responses from the respondent interviewed show that “It has affected the delivery of healthcare services because the numbers of nurses that are presently working are very few compare to the numbers of the populace. So, because of the shortage of staff, they are overworking and they are becoming a patient this are some of the challenges and this is also affecting the quality of services they render. Not only is the shortage of nurses alone there is a shortage in all part of the health sector in the doctors, lab scientist, pharmacist and others” (R1).

While another respondent's opinion was that “the WHO says 4 to 1, but here it is 1 to 20. That's saying that nurses are responsible for 20 to 30 patients at a time” (R2) also, (R3) reflected a similar response that “According to the WHO, it should be five (5) patients to a doctor and also generally there is the shortage of staffs in the health sectors including nurses, lab technicians, lab scientist etc.” This view implies that government has to do something about the migration of health workers from the state as it’s clearly shown that it is affecting the delivery of healthcare in the state.

Furthermore, the second objective was to examine the effectiveness of health sector incentives on health workers in Kwara state and the respondent's response was that “Yes, there are incentives, we have call duty allowance, for nurses, we have shift duty allowance, this is the only functioning incentives. Why other incentives, they are supposed to be given are rural duty allowances, because there need to provide accommodation for those that are been posted to the rural area to encourage them.” (R1).

Other comments such as; “The hazard allowance, the shift duty allowance the call duty allowance that is supposed to be given are not. Take for example a doctor that is operating on an HIV AIDS patient, the prophylaxis drug for HIV AIDS is close to eight thousand naira and the hazard allowance given to the doctor is eight thousand which cannot even buy the drug” (R3) and (R4) opinion is similar to this comment that “the salary is the major thing that is being paid for health workers”. It was discovered that 69.2% of the respondents think that there are no government incentives for health workers in Kwara state

Still on the second objective, in addition to the above, respondents were asked to further comment on incentives/benefits put in place by the government but not implemented. The responses as shown in Table 4.4 indicates that there are no incentives/ benefits that have been implemented except those that were on the ground before in the opinion of (R2) “They are not providing anything except the one that is on the ground. That is the call duty allowance, the shift duty allowance etc.” and (R3) has the same opinion “NA”.

While other comments that there are incentives proposed but not yet implemented from the responses (R1) opined “The retirement age. Ages for doctors to retire” and (R4) has a similar opinion that; “One of the things that have been proposed that are not implemented is the rural posting allowance. It is expected that health workers that have been posted to rural areas will be paid rural housing allowance, which is to serve as an incentive for them. It would be a benefit for them for being in the rural areas but that is not being implemented”. It was discovered that 44.4% of the respondent think that the government incentives for health workers in Kwara state are not effective at all.

Also, it shows that government incentives are not been implemented consistently about 28.7% disagreed. And measures that are been established by the government are not implemented. In this regard, it is expected that the government should implement all these incentives which will mitigate further migration of health workers from the state. Also, those that are staying back will be encouraged to do a better job and care for the citizens.

**CHAPTER FIVE**

**SUMMARY, CONCLUSION AND RECOMMENDATION**

**5.1 Introduction**

This study was aimed at understanding the motives behind the brain drain in the Nigerian health sector and how it has affected healthcare delivery in Kwara state. Also, it examined how incentives provided by the health sector could help in mitigating further migration of health workers in Kwara state. Highlighted in this chapter are the summary, conclusions, and recommendations for the problems raised in the study.

## 5.2 Summary

The brain drain phenomenon has become paramount in Nigeria where deteriorating economic, social, and political conditions are aggravating the emigration tide. The country's health delivery sector is arguably the worst affected by this phenomenon as health workers are migrating in search of greener pastures in southern Africa, western Europe, North America, and Australia, the national healthcare delivery system is undoubtedly the most negatively impacted by this trend.

This study employs a survey design, using both quantitative and qualitative methodologies. While a structured questionnaire is used to address the research questions of this research, an interview was used to further probe the research questions with a structured interview technique carried out through the face-to-face method. Thus, this research adopted a mixed-methods of data collection and analysis which was used to probe the research objectives and questions that were raised.

On the first objective, it was found that the exodus of health professionals is significantly associated with poor healthcare delivery to the citizens and it has reduced the quality of healthcare services by health workers. Also, importantly the gross shortage of workers has affected the workload of the remaining health workers in the health system which calls for more call duties, lesser shift duties, and more patients assigned to a worker.

On the second objective, this research was able to establish that there are government incentives for health workers. As a result of this, the inconsistency of the government incentives is affecting the work performance of health workers and mitigating the migration of health workers for better opportunities aboard and where they can have more experiences, good remuneration, and avenues for further studies.

**5.3 Conclusion**

This study assessed the impact of brain drain on Nigeria’s health workers and the quality of service delivery to the citizens. Although brain drain is not something new and the only thing to do to reduce further migration of health workers from leaving the health system is for when government employs more workers to fill in the gap because there is a gross shortage of staff in the system. This study already establishes the fact that the shortage of workers has affected the healthcare delivery to the citizens. Therefore, the health sector should employ more workers and reduce their standards of employment.

The study went further to examine the fact that, the government can provide more incentives for health workers apart from the salaries they earn. There will be a reduction in health workers' migration. Also, the government should be consistent with the incentives that have been in place, this will also encourage health workers that are left behind.

* 1. **Recommendations**

In line with the study findings, some policy recommendations are suggested as follows,

1. Government should provide employment opportunities for health workers and graduates in Kwara state.
2. The state government should put in place more incentives for the health workers such as; retirement age, scholarships for further study etc. just as is available in other western countries. This will help in mitigating further migration of health workers from the country.
3. Government should also increase worker remuneration, employee welfare, professional progression and growth, burnout, and a better working environment.
   1. **Contributions to knowledge**
4. This study reveals that due to gross shortage of health workers in the health sector. This has led to the poor delivery of healthcare services in the state to the citizens. And has affected the service delivery of health practitioners.
5. It was discovery that due to inconsistency of government incentives. It has mitigate further migration of health workers from the health sector.

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**APPENDIX ONE**

**QUESTIONNAIRE**

I am a post graduate student of the department of Political science and International Relations, landmark University and I am carrying out a study on **“Brain Drain among health workers & sustainable health sector: A study of some selected Hospitals in Kwara state”**. This study is strictly for academic and research purpose. Your personal and occupational identities will be anonymous and your responses will be treated with the utmost confidentiality.

Thanks for your anticipated cooperation.

**SECTION A: DEMOGRAPHICS**

1. **Gender:** Male Female
2. **Marital Status:** Single Married
3. **Age:** Below 21years 22-30years 31-40years 41years & Above
4. **Specialty:** Doctor Nurse Midwife Lab Scientist

Lab Technician Pharmacist Radiologist Others

**SECTION B:** **IMPACT OF EMIGRATION OF HEALTH WORKERS ON QUALITY OF HEALTHCARE DELIVERY IN KWARA STATE**

1. Do you think the migration of health workers has reduced the quality of healthcare delivery in Kwara state? A. Yes B. No
2. Migration of health professional to other countries is a common phenomenon in Nigeria.
3. Strongly Agree B. Agree C. Neutral D. Disagree E. Strongly Disagree
4. To what extent has the emigration of Nigerian health professional significantly affected the quality of healthcare delivery in Kwara state.
5. Very significant B. Significant C. Neutral D. Less significant E. Not significant
6. The increase in migration of health workers has resulted to poor delivery of healthcare to the citizen.

A. Strongly Agree B. Agree C. Neutral D. Disagree E. Strongly Disagree

1. There has been an increase in the workload of health workers who are still in the health system.
2. Strongly Agree B. Agree C. Neutral D. Disagree E. Strongly Disagree

**SECTION D:** **HOW EFFECTIVE HAS BEEN THE HEALTH SECTOR INCENTIVES ON HEALTH WORKERS PERFORMANCE**

1. Are there any government incentives for health workers in Kwara state?
2. Yes B. No
3. Do you benefit from government incentives aside monthly salary?
4. Strongly Agree B. Agree C. Neutral D. Disagree E. Strongly Disagree
5. How effective has been the government incentives for health workers in Kwara state.
6. Highly Effective B. Effective C. Neutral D. Ineffective E. Not Effective
7. Do you think government incentives can mitigate further migration of health workers?
8. Strongly Agree B. Agree C. Neutral D. Disagree E. Strongly Agree
9. To what extent is government incentives implemented consistently?
10. Strongly Agree B. Agree C. Neutral D. Disagree E. Strongly Agree
11. Are there any measures put in place to increase incentives for health workers?
12. Strongly Agree B. Agree C. Neutral D. Disagree E. Strongly Agree

**APPENDIX TWO**

**INTERVIEW**

**Objective One:** To examine the impact of migration of health workers on the delivery of healthcare in Kwara state.

**SECTION A:**

1. What are the effect of health workers’ migration on the delivery of healthcare services?
2. Do you think the migration of health workers has reduced the quality of healthcare delivery in Kwara state?
3. How has the migration of health workers affected the quality of healthcare delivery in Kwara?

**Objective Two:** To assess the effectiveness of the health sectors incentives on health workers’ performance in Kwara state.

**SECTION B**

1. Are there any government incentives for health workers in Kwara state?
2. What are the incentives that are provided by the federal government for health workers?
3. What are the incentives that you enjoy as a worker apart from your salary?
4. What are the incentives you expect as a worker?
5. What are the incentives/benefit put in place but not implemented?