

PUSH AND PULL FACTORS AS PREDICTORS OF MIGRATION AMONG HEALTH CARE WORKERS IN TERTIARY HOSPITALS IN IBADAN

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Abstract

The migration of healthcare workers has become a critical issue in Nigeria, particularly in public tertiary hospitals, where the loss of skilled professionals threatens the stability of the healthcare system. Despite efforts to retain healthcare workers, many continue to migrate due to various socio-economic and professional factors. This study examined the push and pull factors influencing migration intentions among healthcare workers in public tertiary hospitals in Ibadan. A descriptive survey research design was adopted, and a multistage sampling procedure was used to select 100 healthcare workers in public tertiary hospitals in Ibadan. Self-developed and validated questionnaire tagged Push and Pull Factors Questionnaire ($r=0.87$) and Migration Intention Scale ($r=0.91$) were the instruments for data collection. Data were analyzed using descriptive statistics (frequency counts, percentages, mean, and standard deviation) inferential statistics of t-test and multiple regression to test the hypotheses at 0.05 level of significance. Findings indicated that a significant proportion of healthcare workers expressed dissatisfaction with job conditions, with 66% reporting poor work-life balance and 61% stating that their salary was inadequate. The study revealed a significant joint contribution of pull factors (job satisfaction, working conditions, and career development opportunities) to healthcare worker migration ($F(3,96) = 12.941$; $p < 0.05$), with these factors accounting for 26.6% of the variance ($R^2 = 0.266$). Similarly, push factors (political instability, weather condition and insecurity) had a significant joint contribution to migration ($F(3,96) = 14.683$; $p < 0.05$), explaining 29.3% of the variance ($R^2 = 0.293$). Gender differences were observed, with female healthcare workers reporting a higher tendency to migrate than their male counterparts. The impact of migration was also evident, as 97% of respondents confirmed an increased workload due to colleagues leaving, while 81% stated that migration negatively affected the quality of healthcare provided.

The study concluded that healthcare worker migration was influenced by both push and pull factors. These findings underscored the need for policy intervention; improve working conditions, increase salaries, and enhancement career of development opportunities. Additionally, the study recommended that management of health facilities should strengthen staff support systems and implement targeted retention strategies to mitigate the ongoing brain drain in the healthcare sector.

Introduction

Background to the study

Humans have been moving from one place to another for social, economic, or political reasons from their earliest days. Broadly, migration is usually explained in terms of time and

space. It is the movement of people that involves a change in usual residence across an administrative boundaries such as a village, town, district, or country. Migration is the act of people moving from one geographic location to another, with the intention of establishing a new residence, either permanently or temporarily. Moreover, there are two types of migration: internal, when migrants move within their country; and international migration, a situation in which migrants move to live outside of their countries of birth for at least one year. The International Organization for Migration (IOM, 2019), defined migration as the movement of an individual across an international border or within a state away from his/her habitual place of residence, regardless of the person's legal status, whether the movement is voluntary or involuntary, what the causes for the movement are and what the length of the stay will be.

Migration of health care workers in Nigeria has been a common trend which has affected the universal health coverage of the country due to lack of adequate health care workers in the health settings and this poses a significant and ongoing public health concern, as it depletes the health workforce, compromises health outcomes, and exacerbates socioeconomic inequalities. The typical migration pattern among healthcare professionals in Nigeria is from areas with limited resources to those with more resources, such as from rural to urban areas or from low-income to high-income countries. This pattern can lead to a brain drain in the resource-poor areas and a brain gain in the resource-rich areas (Anduaga-Beramendi, 2019).

Migration of healthcare workers has posed a great threat such as increased workload, severe shortage of healthcare workers, reduced quality of care, increase in mortality and morbidity. Olorunfemi, David, Omotayo and Esther (2020) identified three major impacts of migration which are brain drain, source of distraction to others and reduced job satisfaction. According to Clemens, Michael and Pettersson, (2006), health workers migration is defined as the proportion of health professionals' workforce trained in their country of birth and living and working permanently abroad in the medical or healthcare occupation in which they were educated and trained in their homelands. Migration of healthcare workers refers to the movement of healthcare professionals, including doctors, nurses, and other medical staff from one location to another often from a developing or low resource setting in search of better career opportunities, improved working conditions, higher salaries and a higher standard of living. This is also known as brain drain or human capital flight.

The migration of healthcare workers from Nigeria, particularly from public tertiary hospitals in Ibadan, has become a pressing issue with significant implications for the country and the healthcare system. Over the years, Nigeria has experienced an increasing exodus of highly skilled medical professionals, including doctors, nurses, and other essential healthcare personnel, to more developed countries in search of better career opportunities, improved working conditions, and enhanced quality of life. This ongoing brain drain has created a severe shortage of healthcare professionals, placing immense pressure on the already overstretched healthcare facilities and compromising the quality of medical services available to the population (Adebayo and Akinyemi, 2022).

As a result of this workforce depletion, patients in public tertiary hospitals often face long waiting times, inadequate access to specialized care, overburdened medical staff, and declining health outcomes. The remaining healthcare workers are forced to manage excessive workloads, leading to job dissatisfaction, burnout, and further migration, thereby worsening the cycle of attrition. If this trend continues unchecked, Nigeria risks a severe healthcare crisis that could significantly hinder national and global health goals, such as the attainment of Universal Health Coverage (UHC) and Sustainable Development Goals (SDGs), particularly Goal 3 (Good Health and Well-being).

There are many reasons healthcare workers migrate from their home country to abroad. In a survey conducted in a hospital in Delta state, the four major reasons why nurses travel to developed countries include better career prospect or advancement, improved working condition, availability of better training opportunities and attractive retirement benefits. Other identified moderate causes are attractive salaries, better employment contracts, great health safety, availability of job opportunities, recognition of professional expertise, professional working environment and stable socio-political environment (Olorunfemi et al., 2020).

Although, lack of job satisfaction and job exhaustion is a major determinant of migration among health care workers (Lawal, 2022) yet other factors may be responsible such as the push and pull factors. Push factors are conditions in the home country that make health care workers want to migrate to another country (Nguyen and Wood, 2019). They are the unfavourable conditions being experienced in their country and this threatens or forces them to search for better pasture while pull factors are the attractive factors in the country they migrate to. Pull factors are external features that entice health care workers to the host country (Adebayo and Akinyemi, 2022. Hashish and Ashour, 2020). Pull factors are often benefits that are not enjoyed in home countries but are available in other countries in which they migrate to. These pull factors can influence an individual's decision to migrate, either voluntarily or involuntarily, from their home country to another country or region. However, there are specific factors varying from individuals based on their circumstances and experiences. Pull factors include good salary and benefits, career advancement opportunities and health-system quality, Political stability and security, access to quality education and healthcare, cultural and social freedom, environmental attractiveness and quality of life, family reunification and social networks, economic prosperity and development and access to resources and infrastructure are other pull factors that may influence the migration of health care workers from the country. (Olorunfemi et al., 2020).

Push factors that may influence the migration of health care workers include low wages, poor working conditions, political instability and conflict, economic hardship and poverty, lack of job opportunities and unemployment, limited access to education and healthcare, social and cultural restrictions, environmental degradation and natural disasters, political persecution and human rights violation and Lack of security and safety. Despite the increasing outflow of healthcare workers, there is a limited body of empirical research that comprehensively examines how these push and pull factors influence migration trends, particularly within the context of public tertiary hospitals in Ibadan. Most existing studies focus on broad national trends without providing specific insights into how institutional

factors, government policies, and personal motivations interact to shape migration decisions. This gap in research limits the development of targeted policy interventions that could effectively mitigate workforce attrition and improve healthcare service delivery. Addressing this problem requires a data-driven approach to understand the underlying causes of migration and propose viable solutions. Therefore, this study explored the push and pull factors influencing the migration of healthcare workers in tertiary hospitals in Ibadan.

Propose strategies to mitigate healthcare worker migration.

Methodology

The descriptive research design of correlational type was adopted for this study. This was considered suitable because it does not attempt to manipulate variables but describes the variables and their relationship as they occur naturally. The population for this study comprises of all health care workers in public tertiary hospitals in Ibadan, Oyo state. The sample for this study was one hundred respondents (100) respondents. The multistage sampling procedure was adopted to select the respondents as follows:

Stage one: Purposive sampling technique was used to select public tertiary health facilities in Ibadan because they are the hospital with high number of healthcare workers.

Stage two: Random sampling technique was used to select one out of the existing two public tertiary health facilities in Ibadan.

Stage Three: Purposive sampling technique was used to select only nurses and medical doctors since they are the set that migrate at a very high rate.

Stage four: Fifty medical doctors and fifty nurses were randomly selected in the selected tertiary health facilities in Ibadan.

The instrument that used was self developed and validated questionnaire tagged Push and pull factors questionnaire ($r=0.87$) and Migration Intention Scale ($r=0.91$). The scales were rated on a five point likert scale of strongly agree (SA), agree (A), neutral (N), disagree (D) and strongly disagree (SD). All the items on the scales were close ended items. The scales were validated by experts in Public health and Health Education. The reliability of the scales were established through test retest method. Data were analysed using both descriptive and inferential statistics. Descriptive statistics of frequency count and influential statistics of regression and t test to test hypotheses. All hypotheses were tested at 0.05 level of significance.

Results

Research question one: What impact does the migration of healthcare workers have on healthcare service delivery in Ibadan?

Table 1.0: Impact of migration of healthcare workers on healthcare service delivery in Ibadan

S/N	Statement	Yes (%)	No (%)	Mean	Standard Deviation
1.	The migration of colleagues has increased my workload	97 (97.0%)	3 (3.0%)	1.46	0.74
2.	I have considered migrating myself due to the impact of colleagues leaving	84 (84.0%)	16 (16.0%)	2.08	1.08
3.	The migration of colleagues has affected my job satisfaction	86 (86.0%)	14 (14.0%)	2.09	1.12
4.	I feel isolated due to the migration of colleagues who I used to work closely with	71 (71.0%)	29 (29.0%)	2.71	1.21
5.	The migration of skilled healthcare workers has negatively affected the quality of care we provide	81 (81.0%)	19 (19.0%)	2.19	1.22
6.	The departure of colleagues has made it more difficult to manage emergencies and critical issues	73 (73.0%)	27 (27.0%)	2.58	1.26
7.	The migration of healthcare workers has made it more difficult to maintain high standards of care	72 (72.0%)	28 (28.0%)	2.51	1.25

Table 1.0 showed the impact of migration of healthcare workers on healthcare service delivery in Ibadan. When the health workers were asked if the migration of colleagues has increased their workload majority of the respondents (97%) affirmed to the statement while (3%) disagree. Similarly, when they were asked if they have considered migrating themselves due to the impact of colleagues leaving the results showed that majority (84%) agreed, while (16%) disagreed. Also, when they were asked if migration of colleagues has affected their job satisfaction, (86%) supported this while (14%) did not agree. When the respondents were asked if they feel isolated due to the migration of colleagues who they used to work closely with, 71% of the respondents confirmed that they feel isolated due to the migration of the colleagues. The healthcare workers were asked if the migration of skilled healthcare workers has negatively affected the quality of care that they provide

majority of the health workers (81%) ticked Yes to confirm that the quality of healthcare that is been provided negatively affect the quality of care that they provide. Similarly, when the respondents were asked if the departure of colleagues has made it more difficult to manage emergencies and critical issues, to this, (73%) of the respondents agreed, while (27%) disagreed. Lastly, when they were asked if the migration of healthcare workers has made it more difficult to maintain high standards of care (72%) of the healthcare workers supported this, while (28%) disagreed.

Hypothesis 1: There will be no significant joint contribution of push factors (political instability, weather condition and insecurity) to health workers migration in public tertiary hospitals in Ibadan.

Table 2.0: Regression table showing joint contribution of push factors (political instability, weather condition and insecurity) to healthcare workers migration in public tertiary hospitals in Ibadan

R	=	.537			
Multiple R	=	.288			
Multiple R ² adjusted	=	.266			
Standard Error Estimate	=	5.30584			
Analysis of Variance					
Model	Sum of square	Df	Mean square	F	P
Regression	1092.972	3	364.324	12.941	.000
Residual	2702.588	96	28.152		
Total	3795.560	99			

As shown in table 2.0, it was found that there was a significant joint contribution of push factors (political instability, weather condition and insecurity) to healthcare workers migration in public tertiary hospitals in Ibadan. ($F_{(3,96)} = 12.941$; $P < 0.05$). The result yielded a coefficient of multiple regression of $R = 0.537$ and multiple R-square of 0.288. The result also revealed that adjusted $R^2 = 0.266$; indicating that the independent variables accounted for about 26.6% of variance. This means that there was a significant joint contribution of push factors (political instability, weather condition and insecurity) to health workers migration in public tertiary hospitals in Ibadan. The null hypothesis was therefore rejected.

Hypothesis 2: There will be no significant relative contribution of push factors (political instability, weather condition and insecurity) to healthcare workers migration in public tertiary hospitals in Ibadan.

Table 3.0: Regression table showing relative contribution of push factors (political instability, weather condition and insecurity) to healthcare workers migration in public tertiary hospitals in Ibadan

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	31.232	2.763		11.303	.000
Weather condition	.215	.235	.048	.915	.362
Political instability	.912	.260	.534	3.512	.001
Insecurity	.119	.215	.279	2.552	.004

Table 3.0 showed the relative contribution of each of the push variables. As shown on the table, political instability has the highest contribution of 53.4% ($\beta = .534$, $t = 3.512$, $p < 0.05$) followed by insecurity with 27.9% ($\beta = .279$, $t = 2.552$, $p < 0.05$) while weather condition has the least contribution of 4.8% ($\beta = .048$, $t = 0.915$, $p > 0.05$). Therefore, it can be concluded that all the independent variables except weather condition had significant contribution to health worker's migration. Thus, the null hypothesis is rejected.

Hypothesis 3: There will be no significant joint contribution of pull factors (job satisfaction, working condition and career development opportunities) to healthcare workers migration from tertiary hospitals in Ibadan

Table 4.0: Regression table showing joint contribution of pull factors (job satisfaction, working condition and career development opportunities) to healthcare workers migration in public tertiary hospitals in Ibadan

R	= .561				
Multiple R	= .315				
Multiple R ² adjusted	= .293				
Standard Error Estimate	= 5.20593				
Analysis of Variance					
Model	Sum of square	Df	Mean square	F	P
Regression	1193.798	3	397.933	14.683	.000
Residual	2601.762	96	27.102		
Total	3795.560	99			

As shown in table 4.0, it was found that there was a significant joint contribution of pull factors (job satisfaction, working condition and career development opportunities) to healthcare workers migration in public tertiary hospitals in Ibadan. ($F_{(3,96)} = 14.683$; $P < .05$). The result yielded a coefficient of multiple regression of $R = 0.561$ and multiple R-square of 0.315. The result also revealed that adjusted $R^2 = 0.293$; indicating that the independent variables accounted for about 29.3% of variance. This means that there was a significant joint contribution of pull factors (support from management, political instability and insecurity

and migration intention) to health workers migration in public tertiary hospitals in Ibadan. The null hypothesis was therefore rejected.

Hypothesis 4: There will be no significant relative contribution of push factors (job satisfaction, working conditions and career development opportunities) to healthcare worker's migration in tertiary hospitals in Ibadan.

Table 5.0: Regression table showing the relative contribution of push factors (job satisfaction, working conditions and career development opportunities) to healthcare workers migration in tertiary hospitals in Ibadan

Model	Unstandardised Coefficients		Standardised Coefficients	t
	B	Std. Error	Beta	
(Constant)	17.158	2.242		7.025
Job Satisfaction	.103	.223	.562	7.464
Working Conditions	.515	.200	.342	2.578
Career Development Opportunities	.599	.128	.395	4.669

Table 5.0 showed the relative contribution of each of the pull variables. As shown on the table, job satisfaction has the highest contribution of 56.2% ($\beta = .552$, $t = 7.464$, $p < 0.05$) followed by career development opportunities with 39.5% ($\beta = .395$, $t = 4.669$, $p < 0.05$) while working condition has the least contribution of 34.2% ($\beta = .342$, $t = 2.578$, $p < 0.05$). Therefore, it can be concluded that all the pull variables independently contributed significantly to health worker's migration. Thus, the null hypothesis is rejected.

Hypothesis 5: There will be no significant gender difference in migration of healthcare workers in tertiary hospitals in Ibadan.

Table 6.0: Summary of independent sample t-test on migration of healthcare workers from tertiary hospitals in Ibadan

Variable	Gender	N	Mean	Df	t-value	Sig.	Remark
Migration of Healthcare Workers	Male	42	15.4483	98	0.324	0.195	Not Sig.
	Female	58	15.8571				

Table 6.0 showed that there was no significant gender difference in migration of health workers from tertiary hospitals in Ibadan. ($Df = 98$; $N = 100$, $t = 0.324$, $P > .05$). The table also showed that females had a higher mean score of (15.8571) than the male with a mean score

of (15.4483). This means that the female health workers have higher tendency of migrating from tertiary hospitals in Ibadan than their male counterparts.

Discussion of findings

The finding of this study aligned with that of WHO (2022) that stated that migration of health care workers has both positive and negative consequences. On one hand, migrating professionals benefit from better wages, enhanced career prospects, and improved working conditions and on the other hand, source countries experience a shortage of skilled health professionals, leading to a decline in health care quality and increased burden on the remaining workforce. The loss of skilled personnel exacerbates the already fragile health systems thereby, making it difficult to achieve universal health coverage.

The result of this study also corroborated that of Pagliarone, (2019) who established that Venezuela, political and economic crises resulted in widespread shortages of medical supplies, delayed payments to health workers, and collapsing health facilities and the situation forced thousands of Venezuelan doctors and nurses to migrate to neighbouring countries in search of better opportunities. WHO, (2023) found a similar situation in Sudan, prolonged political unrest and government instability which disrupted health service delivery, leading to exodus of Health Care Workers (HCWs) to more stable regions. Liu et al., (2020) also stated that studies indicated that health professionals in politically unstable countries are more likely to migrate to nations with strong governance, reliable health policies, and stable economies.

The finding of this study also support Chen et al., (2020) opinion that studies have shown that burnout and heavy workload are among the strongest predictors of health care workers migration, as professionals seek environments where they can work under less stressful conditions. In Nigeria, a survey conducted by Okeke and Okechukwu (2022) revealed that 65% of health care workers reported symptoms of burnout, with many indicating that they were actively seeking opportunities abroad. Similarly, a study by Adebayo et al. (2021) found that nurses in public hospitals in Ghana experienced high levels of burnout due to excessive workload and inadequate resources, leading to increased migration to European and North American countries. According to a study by Bidwell et al. (2014), many African health care workers migrating to the United Kingdom, Canada, and the United States cited workload and burnout as major reasons for leaving their home countries. In addition, the study found that many of these professionals reported improved job satisfaction and overall well-being after migration. Similarly, a study by Siyam and Zurn (2016) found that 70% of migrating nurses from the Philippines and India moved to high-income countries due to excessive workload and workplace stress in their home countries. The result of this study also tallied with that of International Committee of the Red Cross [ICRC], (2022) who found that beyond political instability, insecurity in the form of violence, terrorism, and armed conflict significantly contributes to HCW migration. Many HCWs in conflict zones face daily threats, including attacks on health facilities, kidnappings, and assassinations. In many cases, hospitals and clinics become targets in conflicts, making them unsafe places to work. A striking example is the migration of health workers from Syria during the civil war. Reports indicate that over 70% of the country's medical professionals

fled the country due to direct threats to their safety (WHO, 2020). Similarly, in Nigeria, the ongoing insurgency by terrorist groups like Boko Haram has forced many doctors and nurses to leave conflict-prone areas, seeking work in safer urban centers or abroad (Okeke, 2022). When HCWs do not feel secure in their workplace, they are more likely to seek refuge in countries where they can work without fear of violence

Conclusion

The findings of this study indicated that healthcare worker migration in Ibadan is driven by both push and pull factors. Likewise, the study concluded that of pull factors are major contributors to health care workers migration in tertiary hospitals in Ibadan). It was also concluded that there is gender disparities in favour of the females in the migration of healthcare workers. Based on the findings, the following recommendations were made:

1. Government and hospital management should increase health workers wages and offer competitive benefits to reduce financial dissatisfaction.
2. Hospitals management should improve infrastructure, provide better equipment, and create a supportive work environment to retain healthcare workers.
3. Flexible work arrangements, leave policies, and reduced excessive workload should be introduced to improve job satisfaction.
4. Training programmes, scholarships, and clear career progression paths should be created to encourage professional growth by employers of health worker.
5. Hospital administration should enhance staff recognition, communication, and involvement in decision-making to improve job satisfaction.
6. The government should implement retention policies such as bonded contracts, incentives for long-term service, and housing benefits for healthcare workers.
7. Collaboration between government and private organizations can help fund healthcare improvements and reduce migration.

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