

Migration of Health Workers and its Impacts on the Nigerian Healthcare Sector: a Scoping Review Protocol

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Submitted to: JMIR Research Protocols
on: May 29, 2024

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Abstract

Background: Health worker migration from Nigeria poses significant challenges to the Nigerian healthcare sector and has far-reaching implications for healthcare systems globally. Understanding the factors driving migration, its effects on healthcare delivery, and potential policy interventions is critical for addressing this complex issue.

Objective: This scoping review aims to comprehensively examine the factors encouraging the emigration of Nigerian health workers, map out the effects of health worker migration on the Nigerian health system, document the loss of investment in health training and education resulting from migration, identify relevant policy initiatives addressing migration, determine the effects of Nigerian health worker migration on destination countries, and identify the benefits and demerits to Nigeria of health worker migration.

Methods: This study will follow the Joanna Briggs Institute (JBI) methodology. A search strategy will retrieve published studies from MEDLINE, CINAHL, EMBASE, Global Health, Academic Search Premiere, and Web of Science. Unpublished studies will be sourced from Dissertations and Theses. A comprehensive search will involve keyword scans and citation searches. Exclusion criteria will filter out irrelevant studies, such as studies unrelated to the international migration of health workers and non-English language studies. A total of 2 independent reviewers will screen the titles and abstracts and then review the full text. Data will be extracted from the included studies using a data extraction tool developed for this study.

Results: A PRISMA-ScR flow diagram will detail the study selection process. Data extraction will utilize a draft charting table. Results will be presented logically and descriptively, providing insights into publication trends, study characteristics, outcomes, etc.

Conclusions: This study holds immense potential to contribute to understanding health worker migration from Nigeria and inform policy and practice interventions to address its challenges. By synthesizing existing evidence, the scoping review will guide future research and policy efforts to mitigate the adverse effects of migration on healthcare systems and workforce sustainability.

(JMIR Preprints 29/05/2024:62726)

DOI: <https://doi.org/10.2196/preprints.62726>

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Original Manuscript

Scoping Review Protocol

Migration of Health Workers and its Impacts on the Nigerian Healthcare Sector: a Scoping Review Protocol

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mitigate the adverse effects of migration on healthcare systems and workforce sustainability.

Keywords

Training and education, health policy, healthcare workforce, policy interventions, socio-political factors, political instability, workforce capacity

Introduction

Overview

Nigeria is the most populous country in Africa and has one of the largest supplies of health workers on the continent; however, the country has been particularly affected by the migration issue [1]. It is estimated that 20,000 of the 72,000 Nigerian physicians educated in Nigeria were practicing abroad in 2008 [2]. This number represents 28% of the physician workforce trained in Nigeria and is significantly higher than the proportion for any other African country [3]. As a result, Nigeria has a fragile health system that is unable to effectively deliver quality health services to its populace. This includes increased workload for the remaining health workers, decreased access to healthcare services, and compromised quality of care. [4-6]. Furthermore, Nigeria invests substantial resources in training its health workforce, yet many of these trained professionals ultimately migrate to seek better opportunities abroad. Documenting the loss of investment in health training and education due to health worker migration is essential for assessing the economic and human resource implications for Nigeria's healthcare system [7].

The global crisis in human resources for health has been described as one of the most pressing issues facing the health sector and is now widely acknowledged as a global priority [8]. Addressing the shortage and maldistribution of health workers, including policy dialogue and coordinated action in the area of international migration of health workers, is deemed necessary to avert a long-term global health workforce crisis, which would be detrimental to the attainment of the health-related Sustainable Development Goals and Universal Health Coverage, and ultimately to global health [9]. Policy initiatives have been proposed to address health worker migration in Nigeria, including retention schemes such as offering competitive salaries and benefits, incentive programs like providing opportunities for professional development, and bilateral agreements to regulate the recruitment of Nigerian health workers by foreign countries. Evaluating the effectiveness and impact of these policies is critical for policymakers and stakeholders to develop evidence-based strategies to mitigate the adverse effects of health worker migration. [10]. Additionally, understanding the effects of Nigerian health worker migration on destination countries is vital for promoting ethical recruitment practices and fostering global health workforce planning. While migration poses challenges for the Nigerian healthcare system, it also generates remittances, fosters knowledge exchange, and promotes international engagement in healthcare development initiatives [11].

The migration of highly skilled health workers from developing to developed countries has been cited as contributing to shortages of qualified health workers in many African and Southeast Asian countries. In relation to the Nigerian context, there is evidence that Nigeria has experienced high levels of emigration of health professionals, where the UK, USA, and Canada are amongst the leading destination countries [12]. It is important to understand the journeys, distribution, and characteristics of migrant health workers, with the aim of identifying specific policy measures to enhance positive impacts and mitigate negative impacts of migration on health systems in source and destination countries [9, 13, 14]. In summary, this scoping review protocol seeks to provide a comprehensive overview of health worker migration and its impacts on the Nigerian healthcare sector. By addressing these issues, the review will inform evidence-based policies and interventions

to optimize the management of health worker migration and strengthen the resilience of Nigeria's healthcare system.

A preliminary search of Campbell's systematic reviews, the Cochrane Database of Systematic Reviews, PROSPERO (International Prospective Register of Systematic Reviews), and Joanna Briggs Institute (JBI) Evidence Synthesis was conducted. Interestingly, no current or underway systematic reviews or scoping reviews on the topic were identified, highlighting the unique contribution of this study.

Aim and review questions.

The primary purpose of this study is to establish a better understanding of how migration affects individual developing nations. This understanding will pave the way for new policies that can better manage the recruitment and retention of health professionals, thereby minimizing any negative effects caused by migration. Importantly, this study also holds the potential for positive outcomes, such as increased skill and knowledge within the sector, which can significantly benefit the healthcare system.

This review will seek to identify the breadth and depth of the available literature, including studies on the causes and consequences of health worker migration, the effectiveness of policy interventions, and the experiences of health workers and their families. This will provide an opportunity to identify research gaps and inform future research and policy decisions. At this preliminary stage in conducting the scoping review, the authors have also found that this type of review is best suited to the resources and time available. Specifically, the review questions are as follows:

1. What factors contribute to the emigration of Nigerian health workers?
2. How does health worker migration impact the Nigerian health system, including its strengths and weaknesses?
3. What effective strategies should be used to promote the retention of skilled health workers within the Nigerian healthcare system?

Methods

This study will adhere to the JBI methodology for scoping reviews [15].

Search Strategy

The scoping protocol, a detailed plan outlining the methods and search strategy for the scoping review, will initiate with an initial limited search of databases, focusing on analyzing text words in titles/abstracts and index terms. This will be followed by a comprehensive 2-way search strategy across multiple databases, including MEDLINE, CINAHL (EBSCO), EMBASE, Global Health, Academic Search Premiere, and Web of Science (Table 1). Unpublished studies will be sourced from Dissertations and Theses. The search will involve specified keywords (e.g., emigration, immigration, health workers) and free keywords (e.g., brain drain, migration). Additional strategies, such as citation and chain searches, will be employed to enhance search completeness. Exclusion criteria will filter out studies unrelated to the international migration of health workers or not centered on the Nigerian healthcare sector. Only English-language studies from an appropriate date range will be considered, aligning with the review's scope and context. Finally, hand-searching of reference lists from relevant primary studies or review articles will be conducted. The scoping protocol plays a crucial role in ensuring the systematic and rigorous conduct of the scoping review, and its adherence

will be reported in the final scoping review.

Table 1: Search Strategy on Databases

Participant, context, and concept scheme	#	Search string	Hits on MEDLINE	Hits on CINAHL	Hits on Web of Science	Hits on EMBASE	Hits on Global Health	Hits on Academic Search Premier
			(Mar. 28)					
International migration AND its impacts on the Nigerian healthcare sector	1	emigration OR immigration OR health workers OR skilled healthcare workers OR health professionals OR healthcare professionals OR healthcare personnel	339,025	119,968	349,710	22,039	12,876	3,789
International migration AND its impacts on the Nigerian healthcare sector	2	brain drain OR migration OR healthcare workers	387,827	43,054	851,446	9,098	456	1,789
	3	#1 AND #2	19,789	11,006		2,004	55	2,908
Migration AND its impacts on the Nigerian healthcare sector	4	Nigeria OR Nigerian	41,946	7,366	4,540	455	34	45
Combined	5	#3 AND #4	292	113		23	12	9
Filters	6	English, from 2001 to date (exc. Magazine and book chapters)	33	112		34	33	54

Eligibility criteria

This scoping review will incorporate the PCC (Population, Concept, Context) framework as a guide, ensuring a comprehensive and inclusive approach. We will thoroughly describe the characteristics of participants, concepts, and contexts alongside our search strategies, data extraction methods, analysis techniques, and result presentation formats. The eligibility criteria, designed to be comprehensive and inclusive, are detailed in Table 2.

Table 2: Inclusion and Exclusion Criteria

Inclusion Criteria
Health workers migration from Nigeria
English
Studies from 2001 through 2024
Conference Papers
Quantitative and Qualitative evidence
Grey Literature
Studies identifying policy initiatives aimed at addressing health worker migration in Nigeria.

Research mapping out the impacts of health worker migration on the Nigerian health system.

Exclusion Criteria

Meeting abstracts

Editorial materials

Book chapters

All other languages

Studies from 2001 & earlier

Studies not related to health worker migration from Nigeria.

Literature not focused on the effects of health worker migration on the Nigerian health system.

Articles lacking information on factors encouraging health worker emigration from Nigeria.

Publications not discussing policy initiatives addressing health worker migration in Nigeria.

Participants

This scoping review will include studies involving health workers who have migrated from Nigeria to other countries. The focus will be on healthcare professionals, including but not limited to doctors, nurses, midwives, pharmacists, radiographers, and laboratory scientists. Additionally, individuals receiving healthcare services in Nigeria impacted by the migration of health workers will also be considered participants in this review.

Concept

The primary concept under investigation is the migration of health workers and its impacts on the Nigerian healthcare sector. This includes examining factors contributing to health worker migration, such as motivating factors, as well as the consequences of migration on healthcare delivery, workforce dynamics, healthcare access, quality of care, and health outcomes in Nigeria.

Context

The review will consider studies conducted regarding the Nigerian healthcare sector, including public and private healthcare facilities, hospitals, clinics, primary healthcare centers, and community health centers. Equally important, studies focusing on the healthcare systems of destination countries where Nigerian health workers have migrated will also be included to provide a comprehensive understanding of the context.

Types of Sources

This scoping review will consider a variety of sources, including empirical research studies, policy documents, reports, and grey literature. Grey literature, which refers to non-traditional sources of information that are not published in commercial publications, can include conference papers, theses, government documents, and unpublished research. Specifically, quantitative studies such as surveys, cohort studies, and quantitative analyses of secondary data will be included. Qualitative research employing methods such as interviews, focus groups, and case studies will also be considered. Additionally, policy documents, government reports, organizational reports, and academic publications addressing the migration of health workers and its impacts on the Nigerian healthcare sector will be included in the review. For instance, a government report on the brain drain of health workers from Nigeria would be a relevant source for this review.

Study or Source of Evidence Selection

Following the search, all identified citations will be collated and uploaded into EndNote (version 20; Clarivate Analytics), and duplicates will be removed. Following a pilot test, titles and abstracts will then be screened by two or more independent reviewers for assessment against the inclusion criteria for the review. Potentially relevant sources will be retrieved in full, and their citation details will be imported into the JBI System for the Unified Management, Assessment, and Review of Information [16]. Two or more independent reviewers will thoroughly assess the full text of selected citations against the inclusion criteria. Reasons for the exclusion of sources of evidence in full text that do not meet the inclusion criteria will be recorded and reported in the scoping review. Any disagreements that arise between the reviewers at each stage of the selection process will be resolved through discussion or with an additional reviewer or reviewers. The results of the search and the study inclusion process will be reported in full in the final scoping review and presented in a PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews) flow diagram [17]. This process ensures the transparency and rigor of the study selection process.

Data Extraction

To ensure the reliability and consistency of the data, two independent reviewers will meticulously extract data from each included study using a standardized data extraction form. The data extracted will include specific details about the participants, concept, context, study methods, and key findings relevant to the review questions. This thorough process guarantees the accuracy of our findings.

A draft charting table will be developed as a data extraction tool. The charting table will be modified and revised as necessary during the process of extracting data from each included evidence source. The purpose of this table is to provide a structured format for recording the extracted data, ensuring consistency and facilitating the analysis process. Modifications to the charting table will be detailed in the scoping review. Any disagreements that arise between the reviewers will be resolved through discussion or with an additional reviewer or reviewers. If appropriate, authors of papers will be contacted to request missing or additional data, where required.

Results

The results of this scoping review, a method used to map the existing literature on a specific topic, will be presented as a comprehensive 'map' of the data extracted from the included papers. The presentation format will be logical, diagrammatic, or tabular, as necessary, and will align with the scope of the review.

The charting table will include key information extracted from each included paper, such as the year of publication, country of origin for the study, aims of the study, study population, sample size, methodology or methods employed, type of intervention or comparator (if applicable/ available), duration of the intervention (if applicable/ available), and kind of outcomes and how they were measured (if applicable). Each category in the charting table will be accompanied by a clear explanation, providing readers with a thorough understanding of the characteristics of the included studies.

The outcomes extracted from the included papers, which meet our pre-defined criteria for relevance and quality, will be systematically organized and analyzed. The narrative summary will provide an overview of the findings, highlighting key themes and patterns identified across the studies. Specifically, the scoping review will explore factors encouraging the emigration of Nigerian health workers, map out the effects of health worker migration on the Nigerian health system, document the

loss of investment in health training and education resulting from health worker migration from Nigeria, identify relevant policy initiatives addressing health worker migration in Nigeria, determine the effects of Nigerian health worker migration on destination countries, and identify the benefits to Nigeria of health worker migration. The narrative summary will offer insights into how the results relate to the scope of the review and its objectives, providing a comprehensive understanding of health worker migration dynamics and their implications.

This scoping review protocol was initially developed as part of a postgraduate research study in 2023 by the authors of this publication. A full search has been underway since July 2023, and we anticipate completing the analysis by July 2024 and submitting the final scoping review manuscript by October 2024.

Discussion

Dealing with health worker migration challenges is crucial to improving healthcare delivery. Like countries facing an aging population, Nigeria is also tackling both an aging populace and a scarcity of healthcare workers, which is straining the healthcare system [10]. Projections suggest a severe shortage in the healthcare workforce by 2038, underscoring the urgent need to address health worker emigration as a top priority [13]. This urgency should resonate with policymakers, healthcare administrators, researchers, and professionals involved in healthcare workforce management and policy development in Nigeria.

Recent studies on health worker migration in Nigeria shed light on the factors contributing to the departure of professionals from the country. For instance, some studies pointed out that socio-political factors such as political instability and insecurity, as well as professional factors like low wages and poor working conditions, are driving health worker emigration. [9, 14]. The findings underscore the potential of focused interventions to address issues and motivate health workers to remain in Nigeria, instilling a sense of optimism for the future of Nigeria's healthcare system.

The consequences of health worker migration go beyond workforce shortages; they also impact the quality and accessibility of healthcare services in Nigeria. For instance, some research studies emphasized how healthcare delivery is strained and how health inequalities worsen due to the departure of professionals [12, 18]. This should underline the gravity of the situation for policymakers, healthcare administrators, researchers, and professionals involved in Nigeria's healthcare workforce management and policy development. Moreover, the issue of health workers leaving the country poses challenges to the healthcare systems' long-term stability and ability to withstand pressures, highlighting the need for measures to retain and develop capacity [7].

Efforts to address these obstacles and encourage health professionals to stay within Nigeria's healthcare system have been gaining traction. Research conducted by Ossai et al. [19] Falase et al. [3] emphasized the significance of overcoming hurdles and offering incentives to retain health workers in the country. Furthermore, the World Health Organization's Global Code of Practice on International Recruitment of Health Personnel serves as a guideline for collaboration in tackling health worker migration and bolstering healthcare systems [20].

In summary, this scoping review protocol aims to consolidate existing literature and empirical data on health worker migration in Nigeria. By exploring the factors motivating migration, understanding its effects on the healthcare system, and identifying retention strategies, this review intends to guide policy development and strategic actions to fortify Nigeria's healthcare workforce and enhance access to quality services.

Strengths and Limitations of the study

The scoping review is designed to identify the gaps in the literature and recommend strategies for further research in this area. The methods used will provide us with an idea of how much research already exists in this domain and examine how research has been conducted on this topic [21]. In addition, the research team, with its extensive experience in different types of systematic reviews, brings a wealth of knowledge and expertise in this specific field, making it well-equipped to tackle the complexities of this research. [21-24].

This review has a few limitations that have been considered when considering the findings. A significant limitation of this review is that the studies identified and included provided very little detail on the health worker's experiences abroad and the impact of migration on the health sector (if they were mentioned). It will, therefore, be difficult to provide a comprehensive account of the health worker migration situation and its impacts on the health sector in Nigeria. Due to this lack of information available in the literature, it may be necessary to widen the scope of the review at a later stage to include non-academic literature and reports to gain a clearer understanding of the situation. Another potential limitation is the exclusion of French language studies. This is because the reviewers are not proficient in French, so using French language studies would be very time-consuming. This may have led to language bias.

Given the broad scope of the review, it has been a challenge to frame precise research questions and define specific inclusion criteria. This complexity has made it difficult to assess the relevance of the retrieved studies. Moreover, there was significant variation in the concepts and definitions of health professional and 'brain drain' among these studies, a factor that will likely influence the findings once the data is extracted and synthesis is carried out.

Conclusion

This preliminary review has shown that the discipline of health worker migration is under-researched. The evidence of its magnitude and implications is weak. This is surprising given the seemingly high level of interest and concern about this issue and the existence of a great deal of 'grey' literature about the migration of health personnel, including policy briefs, reports from international organizations, and articles in non-peer-reviewed journals. We also know this to be a politically sensitive issue. The lack of an evidence base has led some to describe this process as a 'crisis', while others identify many of the concerns as being based on hearsay or anecdote. Our scoping review method was chosen because it is an ideal approach to mapping the key concepts underpinning a research area and the main sources and types of evidence available. This exercise has provided a clearer understanding of what and where the evidence is, which will allow for more detail in a full review of each specific element.

Acknowledgments

The authors thank the librarians from the University of Bradford for their guidance and assistance in this research.

Data Availability

All supporting data will be reported in the manuscript. Any raw data sets supporting the results will be available and presented in the main manuscript or additional supporting files when submitting the systematic review article.

Funding

This study is being undertaken without external funding. However, a publishing grant from Linnaeus University has been received as part of the University Library's research support.

Conflicts of interest

There is no conflict of interest in this project.

Abbreviations

JBI – Joanna Briggs Institute

PCC (Population, Concept, Context)

PRISMA– Preferred Reporting Items for Systematic Reviews and Meta-analyses

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