

KNOWLEDGE GAP OF PRIMARY HEALTH CARE SYSTEM IN NIGERIA: A CONCEPTUAL DIFFERENCE IN AUTHOR'S AFFILIATION

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ABSTRACT

Globally, the assessment of health research to understand different content and gaps will support the effectiveness and attainment of sustainable development goals in 2023. This study investigated the knowledge gap of the Primary Health Care (PHC) system in Nigeria by the conceptual difference in the author's affiliation. The study used publication data from the PubMed database from 2015 to 2022 on Nigeria Primary Health Care (NPHC) OR Nigeria PHC. Two hundred and ninety-six (296) articles were reviewed for this study. At the multivariate level, a structural topic model was used to build and estimate the significant effect of topics, topic correlation and variability of topic relationship by author's affiliation (foreign or national authors). The results reveal that 59.2% of authors were Nigerian-based, highest journal publishers were PloS One and BMC Health Services Research. From the topic variability, research on disease prevention, quality health care, immunization and implementation of health care practices were mostly pioneered by foreign authors. In contrast, research on service/programmes, consequences, workers' knowledge and locality were from national-based authors. This study recommended targeted interventions to enhance healthcare workers' knowledge, emphasizing collaborative efforts among various healthcare professionals. Initiatives should focus on building the capacity of healthcare facilities, especially in rural areas, and promoting preventive measures such as immunization.

Keywords: Primary Health Care, Sustainable Development, PubMed, Author's Affiliation

INTRODUCTION

In a world where disease burdens are increasing and changing while health budgets are being cut at the same time, it is crucial to find practical approaches to developing and implementing evidence-based health services. This is the foundation for the target of Universal Health Coverage, which is part of the Sustainable Health Goals (Walley *et al.*, 2018). The Alma Ata Declaration of 1978, which was drafted in the city of Alma Ata, the capital of the Soviet Republic of Kazakhstan, which was located in the Asian region of the Soviet Union, expressed the need for immediate action to be taken by all governments, all health and development workers, and the international community to protect and promote the health of all of the people of the world (Ata, 1978). The National Primary Health Care Development Agency (NPHCDA) was founded in 1992 to ensure the continuing and sustained implementation of the primary health care (PHC) agenda (Aregbeshola and Khan, 2017). The PHC under one roof (PHCUOR) strategy was established in 2011 to tackle the issue of fragmentation in primary healthcare (PHC) and guarantee the consolidation of PHC services under a single governing body. The influence of PHC under one roof on health status and utilization of PHC in Nigeria has yet to be experienced, as it was implemented as a national policy only a few years ago. The PHC centres' failure to deliver fundamental medical services to the Nigerian people has resulted in a surge of patients seeking care at secondary and tertiary healthcare facilities. This has had a

detrimental impact on the secondary and tertiary levels of healthcare (Ugwu *et al.*, 2020).

The availability of sufficient infrastructure, diagnostic medical equipment, pharmaceuticals, and adequately trained medical professionals is necessary for efficient delivery of healthcare services. In Nigeria, the delivery of healthcare services is frequently characterized by low funding and mismanagement, which harms both the coverage and quality of healthcare services (Oyekale, 2017). There has been numerous research on Nigeria's primary health care system (Abdulraheem *et al.*, 2012; Aregbeshola, 2016; Ephraim-Emmanuel *et al.*, 2018; Gyuse, Ayuk, and Okeke, 2018) but only a few investigate the performance of Nigeria health care system. Oyekale (2017) examines the assessment of primary health care (PHC) facilities' service readiness in Nigeria with a focus on the availability of some essential drugs and medical equipment. The predominance of Bibliometric subjects could be attributed to a marked interest in conducting studies related to educational and bibliometric aspects to assess the current state of research to draw relevant policies from it (Corrales *et al.*, 2016). This study investigates the primary healthcare knowledge gap and a conceptual review of the authors' affiliations. This study addressed the following specific objectives:

- i) Examine the top journal of affiliation on Nigeria's primary health care system between the year 2015-2022

The result in Figure 2 reveals the top ten journal publishers on Nigeria's primary health care. PLoS One journal and BMC Health Service Research published the highest articles of 23 journals each. At the same time, Pan African Medical Journal and Health Policy Plan had 22 and 12, respectively. The least were the Annals of African Medicine and the African Journal of Primary Health and Family Medicine, with 4 journals each. The visualization of

top journals in Figure 2 highlights the key players in disseminating research; this does not only showcase the vibrancy of research activities in the field of Nigeria's PHC but also serves as a valuable tool for decision-makers, researchers, and stakeholders to navigate the research landscape, ensuring that efforts are aligned with the most influential and reputable sources.

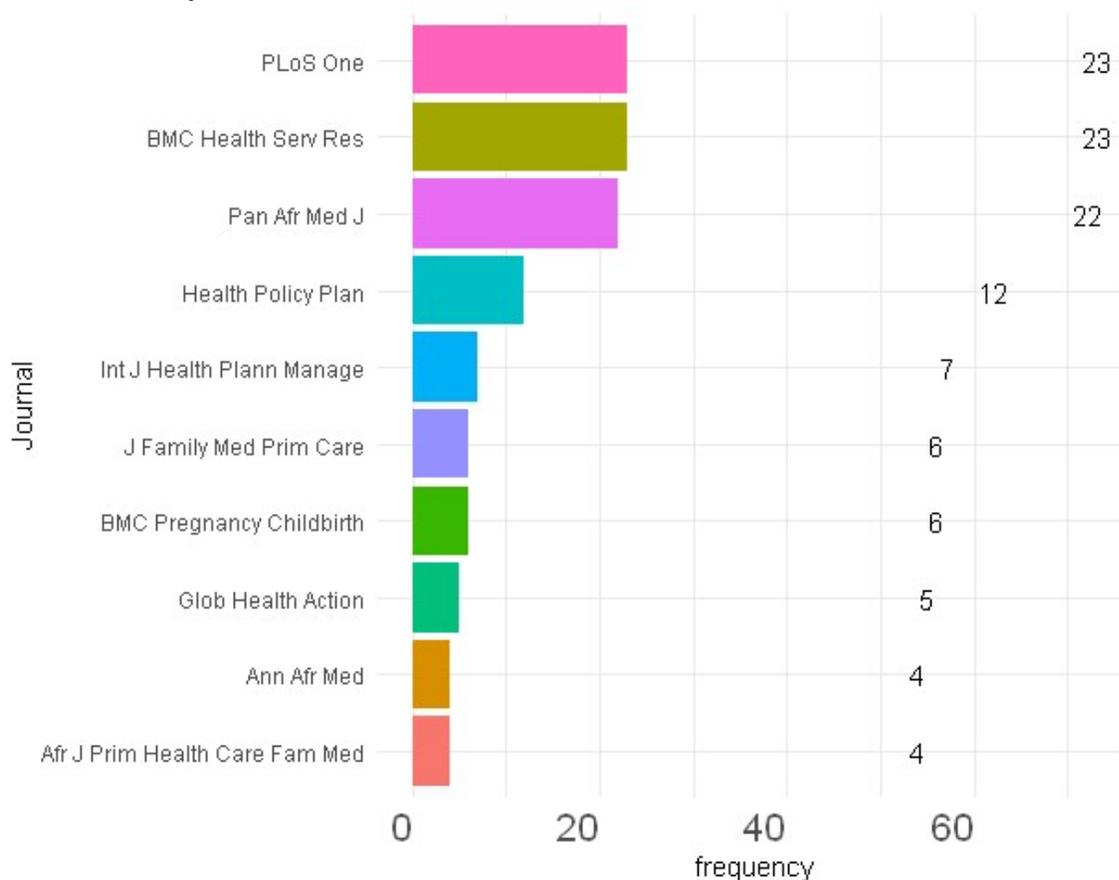


Figure 2: Top Journals of Publication

Figure 3 shows the distribution by meta-topic visualization from the title of journals. Notably, topic 7's prevalence of worker's knowledge of primary health care suggests a substantial interest in understanding and enhancing the skills and awareness of healthcare workers. This is crucial for improving the overall delivery of primary health care services. Du *et al.* (2019) stated that primary healthcare practitioners have a vital role in promoting, preventing, treating, and rehabilitating individuals. Effective primary healthcare (PHC) implementation depends on a collaborative effort from various healthcare professionals, including physicians, nurses,

midwives, community and ancillary workers, and traditional practitioners. These individuals should be adequately trained to work together as a team and address the specific health concerns of the community. The concentration of articles on maternal health in topic 6 underscores the significance of maternal healthcare in the Nigerian primary health care discourse. It reflects a targeted focus on addressing maternal health challenges and improving outcomes. Topic 10's emphasis on the quality of health care highlights the ongoing efforts to assess and enhance the overall quality of primary health care services in Nigeria. The study by Eboime *et al.* (2018) affirmed

that the absence of external support from development partners makes the planning and execution of PHC is nearly non-existent. As a result, while higher levels of government may establish ambitious objectives for primary healthcare (PHC), the actual execution of initiatives may be biased towards donors' interests.

Furthermore, the current configuration of the Local Government Area (LGA) system hinders the efficiency of Primary Health Care (PHC) interventions due to insufficient management capability and lack of political accountability at that level. Other topics, such as immunization (topic 8), disease prevention (topic 1), and primary health care in rural areas (topic 4), indicate a comprehensive exploration of critical areas

in the primary health care system. This suggests a holistic approach to healthcare delivery, considering preventive measures, rural healthcare challenges, and specific programs like immunization. Figure 3's on metatopic distribution underscores the importance of healthcare worker knowledge, maternal health, and quality of healthcare in the discourse. This distribution is essential as it visually represents the thematic priorities within the discourse on Nigeria's PHC. This information guides research, policy, and interventions, ensuring that efforts are directed towards the most critical and impactful areas of improvement in the healthcare system.

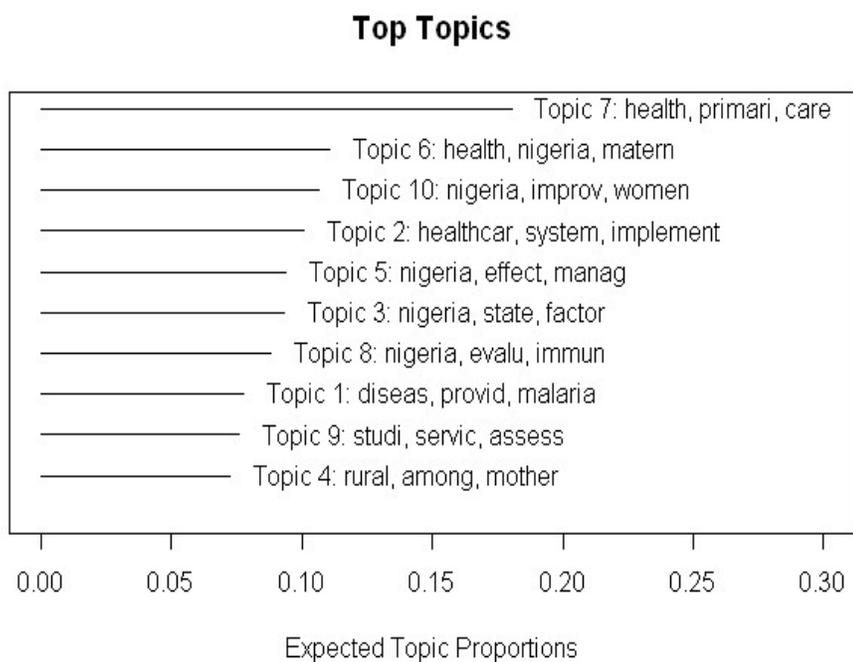


Figure 3: Metadata topic visualization

The result in figure 4 on the structural topic model (STM) reveals that the highest proportion of the topic model centred on worker's knowledge of primary health care, followed by maternal health, quality of health care, implementation of the health care system, effect of primary health care, a locality where the primary health care was located, immunization, disease prevention, primary health care service/program and primary health care in rural areas.

Most journals centred on disease prevention and quality of health care were foreign-based authors. This can be attributed to the pace of development of quality healthcare services in Nigeria which needs improvement. Ephraim-Emmanuel, Adigwe, Oyeghe,

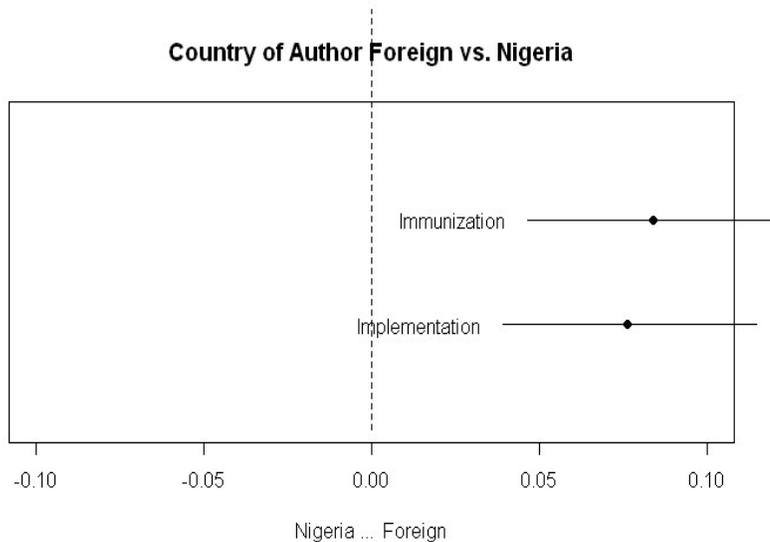
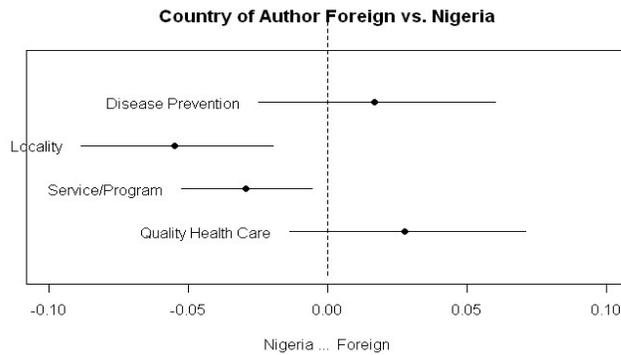
and Ogaji (2018) asserted that Nigeria, a country with a large population that has a ranking of 187 out of 200 on the list of countries with the best healthcare systems in the world, still has inadequate or non-existent health care standards and accreditation systems, low-quality health care services, inequitable distribution, and insufficient health care service delivery.

Scientific research by authors on the locality of primary health care and service/program provided was Home based authors. Similarly, research on the effect of primary health care and worker's knowledge showed that most authors were from Nigeria. This was reinforced by Akwaowo *et al.* (2020), who emphasize the role of primary health care as the first point of

contact with the healthcare delivery system. At that level, short-term, uncomplicated health issues should be addressed. At this stage, patients who require more specialized remedies are referred to secondary care, and efforts are made to promote and educate them about their health. Despite the high demand for these services, their quality could be better because these facilities need more infrastructure and personnel.

Lastly, research findings on immunization and implementation were from foreign-based researchers. Pantoja *et al.* (2017) stated that healthcare systems are tasked with the daunting task of enhancing the quality and safety of the services they provide to boost patient outcomes. However, they often need to employ the best evidence to support decisions on the implementation of specific healthcare initiatives, leading to inferior outcomes and

inefficiency. Health and health behaviour results for patients, healthcare professional outcomes (such as sick leave), healthcare system outcomes (such as resource utilization), and societal outcomes are all influenced by implementation tactics. The structural topic model in Figure 4 further reinforces the prominence of workers' knowledge, maternal health, and healthcare quality in research. The identification of foreign-based authors dominating disease prevention and quality of healthcare topics suggests a possible disparity in healthcare development, with Nigeria needing help to meet international standards. Conversely, research on the locality of primary health care and worker's knowledge is largely driven by local authors, emphasizing the importance of indigenous perspectives in addressing healthcare challenge.



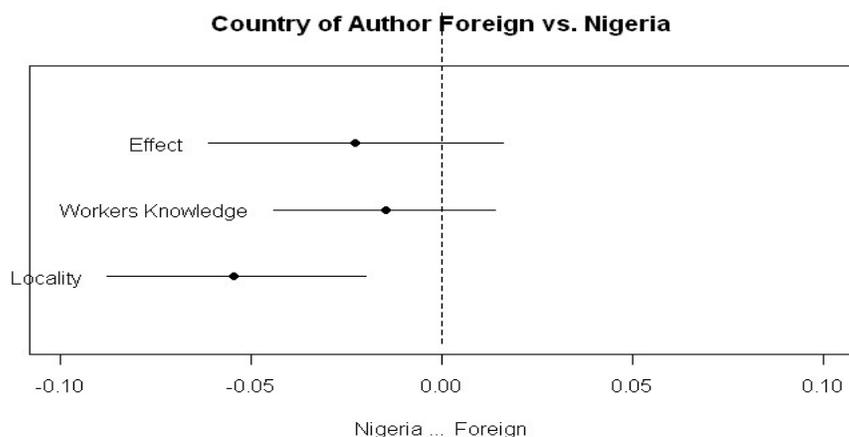


Figure 4: Estimate of Structural Topic Model on Primary Health Care Research in Nigeria

CONCLUSION AND RECOMMENDATION

The study examined the multifaceted nature of Nigeria's PHC system. Concentrating on worker's knowledge, maternal health, and health care quality indicates targeted efforts to improve healthcare delivery, especially in addressing maternal health challenges and enhancing overall service quality. The research findings also reveal challenges such as the influence of external donors, inefficient local government structures, and inadequate infrastructure contributing to the low quality of healthcare services. Based on the study's findings, several recommendations emerge. Firstly, there is a need for targeted interventions to enhance healthcare workers' knowledge, emphasizing collaborative efforts among various healthcare professionals.

Additionally, efforts should be directed towards improving maternal health, addressing healthcare quality, and strengthening the overall PHC system. Local government reforms and increased funding are imperative to overcome existing inefficiencies. Furthermore, initiatives should focus on building the capacity of healthcare facilities, especially in rural areas, and promoting preventive measures such as immunization. Lastly, fostering collaboration between local and foreign researchers can contribute to a more comprehensive understanding of Nigeria's PHC challenges and facilitate evidence-based decision-making for effective implementation of healthcare initiatives.

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