

Reproductive and Maternal Healthcare Services in Nigeria: A Narrative Review from 1970 to 2023

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Abstract

Reproductive and maternal health in Nigeria faces significant challenges despite efforts to improve outcomes over the years. Nigeria, Africa's most populous country, struggles with high maternal mortality rates and disparities in access to healthcare services, particularly between urban and rural areas. Nigeria has one of the highest maternal mortality rates globally, with approximately 512 deaths per 100,000 live births as of recent estimates. This statistic underscores persistent challenges in ensuring safe childbirth and adequate maternal healthcare. This review assessed the level of utilization of reproductive and maternal health services in Nigeria. A comprehensive search was carried out using electronic sources such as PubMed, Google Scholar, and African Journal Online (AJOL). The search terms included "maternal health in Nigeria", and "utilization of reproductive services in Nigeria". The database search yielded a total of 55 studies. The research revealed the gradual evolution of reproductive and maternal health services from the post-colonial era to the present day. This review shows the under-utilization and disparity of reproductive and maternal healthcare services between rural and urban areas in Nigeria.

Key words: maternal health; reproductive health; utilization

Introduction

Women play a crucial role in the well-being of families, communities, and nations worldwide. It is imperative to prioritize their health during and after childbirth. The impact of a mother's well-being on her family cannot be overstated, underscoring the need to enhance maternal and reproductive healthcare services to achieve the Sustainable Development Goal (SDG) 3 of offering accessible healthcare to all individuals [1]. Quality healthcare delivery is critically important worldwide as it saves lives. Unfortunately, in many sub-Saharan African countries, including Nigeria, maternal and child mortality rates remain unacceptably high [2]. Concerted efforts must be made to address this issue and improve healthcare outcomes. Nigeria, despite having only 2.4% of the world's population, faces significant challenges in maternal and childbirth health [3]. The country's high maternal mortality rate of 576 deaths per 100,000 live births and the significant number of childbirth-related infant deaths underline the urgent need for targeted interventions and support [4]. It's crucial to recognize that over half of maternal and neonatal deaths result from attempted abortions and pregnancy-related complications, particularly maternal hypertensive disorders, pre-eclampsia, hemorrhages, premature rupture of membranes, and infections [5]. As

women age, they become more susceptible to illnesses such as pelvic damage, cervical and breast cancer, fibroids, and other urogenital infections. Given the current challenges, it's anticipated that we may not meet the requirements to achieve Universal Health Coverage (UHC) and the SDG:3 target. This is a significant concern within the healthcare sector.

Maternal and reproductive healthcare services aim to ensure maternal and perinatal health and prevent female mortality [6]. This involves monitoring person-centered quality and implementing respectful maternal and perinatal care. It also includes offering guidance, conducting routine check-ups, and recommending functional care networks to enhance the efficiency and resilience of healthcare systems [5]. Regrettably, the potential for establishing a care network to enhance maternal and reproductive outcomes is currently suboptimal [2]. This is largely because the quality of maternal care profoundly impacts delivery. This situation leads to greater usage of alternative healthcare services by women. For example, statistics show that 66% of non-institutional health deliveries involve a midwife, relative, or self-assisted birth [7]. In Nigeria, there are deficiencies in hygiene, contraceptive usage, and safe medication

practices, impacting patient safety [9, 10, 11]. Healthcare financing in the country accounted for 72% and 95% of public and private health expenditures in 2018 [11].

Research shows that women's access to healthcare services depends on their perceptions and factors related to maternal and reproductive healthcare [12, 13, 14]. Understanding and addressing factors such as perceptions of ante-natal and post-natal care, service delivery delays, fear of adverse health outcomes, and cultural and religious beliefs can improve healthcare utilization [15, 16]. The unequal distribution of health facilities between urban and rural areas is influenced by factors such as inadequate equipment and health personnel, rising corruption levels, prevalent diseases, and high out-of-pocket payments for health services [17, 18]. Additionally, there are concerns about the lack of awareness among women, particularly related to their socio-demographic characteristics, which impact healthcare utilization. Addressing these issues is key to improving healthcare access and promoting healthier lifestyles [7, 19].

The Nigerian healthcare system faces challenges due to reduced investment in the public health sector, high demand for healthcare services, and neglect of primary healthcare facilities, leading to low utilization of maternal and health services by women, especially in rural areas [10, 20]. This situation does not meet the standard set by the World Health Organization's initiative on safe motherhood [21]. It's crucial to provide high-quality healthcare services, especially for rural women [2]. Involving stakeholders, communities, and healthcare workers is essential. Medical social workers play an important role in advocating for healthcare utilization and education [22]. Their involvement can lead to improved healthcare services and reduced maternal and neonatal child mortality [23]. A gap therefore exists for the improvement of reproductive and maternal healthcare delivery at the community level, a fundamental right to health that so many are denied, to address poor maternal health and strengthen the healthcare system in Nigeria. This review assessed the level of utilization of reproductive and maternal health services in Nigeria.

Methods

Study area

The study covered studies on Reproductive and Maternal Health Services carried out in Nigeria.

Search strategy

A systematic search for published articles on neglected tropical diseases (NTDs) using electronic sources such as PubMed, Google Scholar, Google, and African Journal Online (AJOL). Search terms included Nigeria combined maternal and reproductive health services.

Review question

- What is the level of utilization of Reproductive and Maternal Services in Nigeria?
- What are the disparities in the availability of Reproductive and Maternal Services in Nigeria?

Study population and type of studies included

This research included studies that met study criteria and were published in PubMed and Google Scholar. Additionally, a secondary search on MEDLINE and manually searched for studies that fit our criteria. This approach helped find relevant studies that aligned with the research objective.

Inclusion criteria

- Studies published in the English language and conducted in Nigeria on Reproductive and Maternal Health between 1970 and 2023
- Studies with defined protocol and study design
- Additional studies that provided additional information on Reproductive and Maternal Health Services in Nigeria

Exclusion criteria

- Studies published in the English language and conducted in Nigeria on Reproductive and Maternal Health between 1970 and 2023 but without clearly defined period, duration, sample size, and location were discarded
- Studies with methodological flaws and those with incomplete data

Results

Refer ences	Title	Year of Publication	Location	Population	Inclusion criteria	Exclusion criteria	Instru ment
[24]	Determinants of urban-rural differentials of antenatal care utilization in Nigeria	2014	Nationwid e	33,385	Women with one or more birth five years before the survey	Women without any birth five years before the survey	Questio nnaire
[25]	Optimizing the utilization of maternal and reproductive healthcare services among women in low-resourced Nigerian settings	2023	Southeast	38	Expectant women of up to six months, who are registered in the ante-natal care (OPC) service of the selected primary health facility.	Non-pregnant women & pregnant women < 6 months	Focus group discussi ons
[26]	Utilization of Maternal Health Services in Urban and Rural Communities of Anambra State, Nigeria	2014	Southeast	338	Mothers with children aged 0–59 months	Women with no children	Questio nnaire

[27]	Assessment of maternal health services: a comparative study of urban and rural primary health facilities in Kano State, Northwest Nigeria	2021	Northwest	438	Women residing for at least 1 year within the study areas who have had at least three contacts with the health facility within the preceding year	Non-consenting women and women who were sick	Structured interviewer-administered questionnaire
[28]	Improving maternal and newborn health services in Northeast Nigeria through a government-led partnership of stakeholders: a quasi-experimental study	2022	Northeast	1000 women	Women aged 13–49 years with a live birth in the previous 12 months	women with no live birth in the previous 12 months	Questionnaire
[29]	Prevalence and factors associated with underutilization of antenatal care services in Nigeria: A comparative study of rural and urban residences based on the 2013 Nigeria demographic and health survey	2018	Nationwide	40680 households	Women aged 15 to 49 years old present in each of the selected households for at least a night before the survey, as well as men of the same age category but present in the alternate households for at least a night before the survey	Women < 15 years old present in each of the selected households	Questionnaire
[30]	Adolescent Sexual and Reproductive Health Care Service Availability and Delivery in Public Health Facilities of Plateau State Nigeria	2021	Plateau state	230 PHCs	PHCs that provide services in the selected LGAs	PHCs that no longer provide services	Questionnaire
[31]	Association between Socioeconomic Status and the Utilization of Maternal Health Services in Nigeria	2023	Southwest	188 pregnant women	Women ≥ 20 years old who consent to join the study	Women < 20 years old who consent to join the study	Questionnaire
[32]	Unavailability of Essential Obstetric Care Services in a Local Government Area of South-West, Nigeria	2007	Southwest	52 PHCs	PHCs that provide services in the selected LGAs	PHCs that no longer provide services	Questionnaire
[33]	Knowledge and utilization of sexual and reproductive health services among young males in a slum area in Nigeria: A cross-sectional study	2023	Southwest	422 participants	Young males in Mushin between the ages of 15–24 years	Young males in Mushin below 15 years and above 24 years	Questionnaire
[34]	Awareness and Utilization of Adolescent Reproductive Health Services among in-school Adolescents in Urban and Rural Communities in Oyo State	2020	Southwest	450 participants	Adolescents attending public and private day secondary schools in urban and rural communities in Oyo-State	Married in-school adolescents	Questionnaire

Discussion

Overview of Reproductive and Maternal Health Services in Nigeria

Nigeria is faced with the persistent challenge of high maternal mortality rates, which rank among the highest worldwide [35]. Based on recent data, the maternal mortality ratio (MMR) stands at 512 deaths per 100,000 live births [35]. These elevated rates signify impediments in accessing essential maternal health services, particularly in rural and underserved areas.

Notably, the healthcare infrastructure in Nigeria is characterized by non-uniform distribution, resulting in substantial discrepancies between urban and rural areas. Urban centers generally enjoy superior access to well-equipped healthcare facilities staffed with proficient personnel and

essential obstetric care services, while rural areas contend with shortages of healthcare providers and facilities [36].

The evolution of maternal health services in Nigeria from 1970 to 2023 reveals a complex trajectory marked by enduring challenges and evolving strategies aimed at enhancing outcomes for pregnant women. Nigeria, bearing one of the highest global maternal mortality rates, has grappled with notable disparities in healthcare access, deficiencies in infrastructure, and socio-cultural barriers impacting maternal health [35]. Over the decades, successive Nigerian governments and diverse stakeholders have implemented policies and programs to address these issues and enhance maternal health services on a national scale.

The continuum from the 1970s, characterized by the establishment of primary healthcare systems, to the present day, underscores a concerted

endeavor to mitigate maternal mortality through targeted interventions and initiatives aimed at strengthening the health system [37]. Despite these endeavors, challenges such as inadequate funding, shortages in healthcare personnel, and geographical inequalities endure, exerting influence on the efficacy of maternal health services delivery across divergent regions [36].

Regional Breakdown of Utilization of Maternal Health Services in Nigeria

The differences in access to healthcare facilities and services between rural and urban areas in Nigeria may explain the disparities in healthcare utilization [29]. Residents in rural areas are generally at a disadvantage due to low coverage of healthcare facilities and services [29]. Even when facilities are available, factors such as poor road networks, inefficient transport systems, and distance barriers can make them inaccessible to rural residents. These challenges may explain why being accompanied by health facilities is a significant risk factor for the under-utilization of antenatal care (ANC) in rural Nigeria [26]. Distance to health facilities is a significant factor in both rural and urban areas, with a greater impact in rural areas. Other contributing factors to the underutilization of maternal healthcare services in rural areas include traditional beliefs, poorly equipped and understaffed healthcare facilities, and poor socioeconomic circumstances [26].

In Nigeria, there is a noticeable disparity in the utilization of maternal health services between the northern and southern regions. This presents an opportunity to address the underlying factors contributing to these differences and work towards improving maternal healthcare access and outcomes across the country. The lower utilization rates in the northern regions can be better addressed by understanding and addressing the cultural practices, socioeconomic disparities, and infrastructure deficiencies that impact maternal health services [36]. By implementing targeted initiatives to improve access to antenatal care and skilled birth attendance, we can strive to reduce maternal mortality ratios and enhance overall maternal health in these areas.

1.1.1.1 Meanwhile, the higher utilization rates in the southern regions showcase the potential for leveraging better healthcare infrastructure and education levels to further enhance maternal health services nationwide [36]. By sharing best practices and investing in healthcare facilities and personnel in the northern regions, we can work towards creating more equitable access to essential obstetric care services and improving overall maternal health outcomes.

Lagos, as one of Nigeria's most developed states, demonstrates higher utilization rates for maternal health services. The state government has made significant investments in healthcare infrastructure and programs aimed at enhancing maternal health outcomes [36]. In contrast, Kano State in northern Nigeria faces challenges, including low utilization of antenatal care services and high maternal mortality rates. Ongoing efforts to improve maternal health services in Kano encompass initiatives such as the MSS and community health programs [27, 38].

Prior research has examined the utilization patterns of maternal healthcare services in various regions of Nigeria and other comparable settings. These studies have identified several factors that influence access to maternal healthcare services, including distance from healthcare facilities, the educational level of women, their income, and their age [39]. Also, in a study using a multilevel approach, education was found as the only individual-level variable that is consistently a significant predictor of service utilization, while the socioeconomic level is a consistently significant predictor at the household level [40].

The study highlighted a disparity in the utilization of antenatal care between urban and rural areas in Nigeria. It was observed that rural women were less likely to utilize antenatal care compared to their urban counterparts [40]. Specifically, women in the northeast, northwest,

southeast, south-south, and north-central regions had significantly lower odds of accessing antenatal care compared to those in the southwest region [40]. Despite advancements in medical technology, modernization, and government initiatives in the healthcare sector, the optimal utilization of healthcare services remains a prevalent issue in low and middle-income countries, including Nigeria.

Furthermore, with the country's increasing population, achieving the World Health Organization's initiative on safe motherhood underscores the importance of optimizing healthcare services utilization [37]. The findings indicate that rural women often refrain from using institutional health facilities due to three major perceptions. Additionally, the study suggested that the higher utilization of maternal healthcare services among Christian women in the South may be attributed to their higher level of education compared to Muslim women in the north, potentially explaining the lower utilization of maternal healthcare services in the North-east and northwest regions where Islam is the predominant religion [34].

Again, the provision of essential adolescent sexual and reproductive health (ASRH) services fell below the national policy benchmark, with very few Primary Healthcare Centers offering crucial ASRH services such as sexuality counseling, contraception, or safe sex/STI prevention. While family planning services were available in most facilities, they were primarily targeted at married women, neglecting adolescents [30]. Economic factors, including income level and occupation, were cited by half of the respondents as influential in maternal health services utilization [30]. Moreover, the study identified a significant relationship between demographic characteristics (age, marital status, ethnicity, and parity) and the utilization of maternal health services among expectant mothers, as well as a similar relationship between economic factors (occupation and income level) and the utilization of maternal health services. The study also revealed that essential obstetric care (EOC) services are still inadequately available in Nigeria, despite efforts outlined in the National Reproductive Health Policy to minimize pregnancy and childbirth-related fatalities. Most respondents in the utilized studies demonstrated good knowledge about the signs of sexual maturity in males and pregnancy, with more than half having visited a health facility for sexual and reproductive health services. However, the utilization of adolescent RH was notably low, with limited awareness and usage, particularly among rural communities [30]. The study emphasized the significance of raising awareness about ARHS, acknowledging that issues related to ARHS in Nigeria are often considered a taboo.

Power Structures Influencing Reproductive and Maternal Health in Nigeria

Stakeholders involved in shaping Nigeria's maternal health landscape encompass the Nigerian Federal and State Ministries of Health, the National Primary Healthcare Development Agency (NPHCDA), the Society of Obstetricians and Gynecologists of Nigeria (SOGON), as well as traditional, religious, and political authorities at the national level. Additionally, international entities such as the World Bank, UNFPA, and the World Health Organization (WHO) have also exerted influence. These influential entities have primarily operated from urban centers and healthcare facilities, even though most women grappling with maternal health issues reside in rural areas served by primary healthcare centers. As a result, decisions and policies concerning their health and well-being have predominantly emanated from experts and specialists in urban centers and ministries of health, following a top-down approach. Notably, community decision-makers, particularly religious and traditional leaders, have significantly contributed to perpetuating various assumptions, cultural and religious norms, institutionalized beliefs, and behaviors that have shaped maternal health policies and interventions.

Conclusion

This review indicates that women who are economically disadvantaged, less educated, and living in rural areas, particularly the Northern part of Nigeria, tend to underutilize reproductive and maternal health services due to the inaccessibility and unaffordability of such services. Therefore, stakeholders in reproductive and maternal health must prioritize the implementation of targeted strategies aimed at improving access to the uptake of reproductive and maternal health services among these vulnerable groups to improve the country's high maternal mortality rate and other child-birth-related events.

Limitation of the study

One important drawback of this review is the possible omission of relevant articles and fewer number of articles included. Certain pertinent articles or studies may have been excluded because of the search strategy or keywords used in the electronic and manual search.

Conflict of interest: The authors have none to declare

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