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"I went to the primary health centre close to my workplace, but their capacity cannot deliver the baby": exploring why women choose different providers for maternal health services in Nigeria

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Abstract

Background Maternal health remains a significant public health concern globally, including Nigeria. Despite concerted efforts to improve maternal health services, maternal mortality rates in Nigeria remain unacceptably high. Understanding the factors that shape women's choices in selecting the place of birth could help tailor services and improve quality of care for mothers and infants. Therefore, our study explores the experiences, barriers and facilitators that influence where women choose to access maternal health services in three diverse Nigerian states of Lagos, Oyo and Jigawa.

Methods We conducted qualitative in-depth interviews with nursing mothers and healthcareworkers (HCWs) in Lagos, Oyo and Jigawa states, and community birth attendants (CBAs) in Lagos and Oyo. We used maximum variation sampling to purposefully recruit nursing mothers in their puerperium who gave birth in different places. HCWs and CBAs were purposively selected from health facilities and birth homes. All interviews were conducted between September - December 2023. We used reflexive thematic analysis to generate themes across participant types and states.

Results We recruited 44 participants for this study, 25 nursing mothers and 19 HCWs. We identified five major themes: (1) Preference for safe, comfortable and quality health services; (2) Social diffusion and cultural/religious influences; (3) Physical, geographical and financial inaccessibility; (4) Symbolic perception of health facilities and (5) Misunderstanding of health promoting and preventive care in pregnancy. The main reasons for choosing a particular place of birth were the preference for safe, comfortable, and high-quality healthcare, as well as the perceived convenience and accessibility of birth homes within close proximity to the women's homes.

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Conclusions We found women's choice of place of birth is influenced by a complex interplay of factors. Among these are health system inadequacies, socio-economic factors, and the desire for comfortable and quality maternal healthcare. HCWs, CBAs, and nursing mothers emphasised these determinants as critical in shaping women's decisions regarding where to give birth. This highlights the need for comprehensive interventions across policy, healthcare delivery, community engagement, and individual levels to overcome barriers, improve maternal health outcomes, and support women in making informed childbirth decisions.

Keywords Maternal health services, Place of birth, Nursing mothers, Healthcare workers, Community birth attendants

Background

Maternal health remains a significant public health concern globally, particularly in low- and middle-income countries such as Nigeria [1]. Despite concerted efforts to improve maternal health services to achieve the sustainable development goal (SDG) of less than 70 maternal deaths per 100,000 live births by 2030, maternal mortality rates in Nigeria remain unacceptably high [2]. The 2023 UN report on Trends in Maternal Mortality from 2000 to 2020 reported a global maternal mortality ratio (MMR) of 223 maternal deaths per 100 000 live births. Nigeria had the highest estimated number of absolute deaths at 82,000 annually, and proportion of the global burden (28.5%). While this represents a 34% decline since the year 2000, progress has been too slow [3, 4].

SDG 3 – focused on health, was structured with interventions to achieve universal health coverage by ensuring equitable access to quality and essential health services including maternal health services and family planning as core pillars of safe motherhood [5–7]. However, only 52% of women attended the recommended minimum of four antenatal visits and 38% gave birth in a healthcare facility in Nigeria [3, 8–11]. In Nigeria, government and development partners have made many efforts to improve maternal health service delivery and utilisation. For instance, Nigeria's Health Sector Renewal Initiative aims to comprehensively revamp physical infrastructure, equipment and retraining of frontline health workers [12].

The redesign of the Basic Health Care Provision Fund (BHCPF) should further enhance access to essential healthcare services, reduce costs and improve access by allocating resources more equitably to the poorest and most disadvantaged populations [13]. In 2012, the 'save one million lives' project was also executed by the Federal Government of Nigeria nationwide – as a maternal, newborn and child health (MNCH) programme supported by the World Bank to catalyse change in the way health business is done [14]. It effectively increased government awareness of critical MNCH indicators, especially in States where the programme was implemented [15].

Access to quality antenatal and delivery health services is crucial to reduce maternal and child deaths. However, despite these initiatives and significant advancements, according to the 2018 Nigeria Demographic Health Survey (NDHS), only 43% of pregnant mothers had a skilled birth attendant present at birth in Nigeria. Studies have shown that women continue to face multifaceted challenges in determining where they will give birth [16, 17]. Understanding the factors that shape women's choices in selecting the place of birth could therefore improve service provision and help in achieving better health outcomes for both mothers and infants [18, 19].

Previous quantitative studies conducted in Nigeria have shown several challenges impacting health-seeking behaviours and choice of maternal healthcare provider, including: inadequate healthcare infrastructure, socio-economic disparities, policy and governance shortcomings, proximity to health facilities and maternal education and awareness programmes in influencing healthcare-seeking behaviours, healthcare quality and accessibility issues, and cultural and societal norms [9, 18, 20–24]. However, there are limited qualitative studies which provide a deeper understanding of the complex socio-cultural, economic, and health system factors that shape women's choice of maternal healthcare provider in different Nigerian contexts [25].

Therefore, our study seeks to explore the experiences, barriers and facilitators which influence where women choose to access maternal health services in three diverse Nigerian states - Lagos, Oyo and Jigawa. Using the Andersen's model of health service utilisation as a guide for our study [26], the multifaceted findings can help inform targeted interventions, like creation of outreach programmes that are sensitive to cultural differences or the identification of areas where infrastructure needs to be improved to facilitate accessibility to improve maternal health outcomes.

Methods

Study design

We conducted a qualitative study using reflexive thematic analysis with in-depth interviews with nursing mothers and HCWs in Lagos, Oyo and Jigawa, and CBAs in Lagos and Oyo [27]. All interviews were conducted between September - December 2023. We followed the Consolidated Criteria for Reporting Qualitative Research guidelines for reporting of this study [28].

We used the Andersen's model of health service utilisation as our conceptual framework, to inform the development of our interview guide. The model consists of

predisposing, enabling and need factors [29]. In the model, predisposing factors encompass demographic, social, and cultural characteristics that predispose women to seek or avoid maternal healthcare services. Enabling factors refer to the resources and opportunities that facilitate or hinder maternal healthcare access and utilisation. Need factors reflect the perceived or actual need for maternal healthcare care [29].

Setting

We conducted the study in Lagos and Oyo in the south-west, and Jigawa in the north-west geopolitical zones of Nigeria. These states represent different socio-cultural contexts, health infrastructure, and levels of urbanisation, providing a rich tapestry of experiences and perspectives.

Lagos state is the most populous state in Nigeria with an estimated population of 24.6 million people in 2022 and is an economic hub in West Africa. We recruited participants from Ikorodu Local Government Area (LGA), which is a peri-urban and the majority of people are of the Yoruba ethnic group, with small/medium-scale entrepreneurship as the predominant economic activity. The literacy level in Lagos state is 85.3% and 93.0% for women and men, respectively. According to NDHS, 86.4% of pregnant women utilised ANC by a skilled health provider, and 75.7% had health facility childbirth [15]. Using the NDHS 2018 findings, 75% of the people in Lagos are in the wealthiest quintile and the MMR was 430 per 100,000 [15, 30].

In Oyo State, participants were recruited from two LGAs: Ibadan southwest and Lagelu in Ibadan metropolis, which is the capital of Oyo state. Ibadan is an ancient city with 5 urban and 6 peri-urban LGAs, and the majority of people are of the Yoruba ethnic group. The literacy level in Oyo state is 85.3% and 90.2% for women and men respectively, 85.4% of pregnant women utilise ANC by skilled health providers, and 70.1% had a health facility childbirth [15]. In Oyo 38.5% of the people are in the wealthiest quintile and 262 MMR per 100,000 live births annually, below the national average [15, 31].

Jigawa state is an agrarian setting with an estimated population of 7.9 million people. Participants were selected across two LGAs: Dutse and Kiyawa. The majority of people are of the Hausa-Fulani ethnic group, and the literacy level is 18.1% and 58.1% for women and men, respectively. A percentage of 78.6 of pregnant women utilise ANC by skilled HCWs, and 20.1% had a health facility birth in Jigawa [15]. In Jigawa, 4.0% of the people are in wealthiest quintile and the MMR is estimated to be 1,012 per 100,000 live births Jigawa [15, 32].

Participants and sampling

We used purposive maximum variation sampling to recruit nursing mothers in their puerperium who gave birth in different places (mission homes, traditional birth homes, primary health centres (PHCs), and secondary health facilities (SHF)) and were of different age groups and levels of education. This sampling technique was employed to ensure a variety of participants are selected in the three states to represent the study population while considering a wide range of characteristics relevant to the research objectives. For HCWs, various primary health workers (nurses and community health officers) who have different levels of education and work experience were recruited for this study. CBAs were purposively selected from mission homes and traditional birth homes, who provide maternal health services (antenatal and/or delivery) with different levels of education and work experience (Tables 1 and 2). These participants were independently approached by the researchers for participation in the study. We did not interview CBAs in Jigawa for this study, as they have been incorporated into

Table 1 Participants' characteristics (Health care providers)

Characteristics	Healthcare providers		
	Lagos (*N* = 7)	Oyo (*N* = 6)	Jigawa (*N* = 6)
Gender			
Female	7	6	6
Profession			
Community health worker	0	2	0
Nurse	4	1	6
CBA	3	3	0
Level of care			
Community (CBA)	3	3	0
Primary	3	4	1
Secondary	0	0	2
Tertiary	0	0	1
Private	0	0	2
Level of education			
Primary	0	1	0
Secondary	3	2	0
Tertiary/Postgraduate	4	3	6
Religion			
Islam	3	0	4
Christianity	4	6	2

Table 2 Participants' characteristics (nursing mothers)

Characteristics	Nursing mothers		
	Lagos (*N* = 7)	Oyo (*N* = 5)	Jigawa (*N* = 13)
Level of education			
No education	0	0	5
Primary	0	0	1
Secondary	5	3	5
Tertiary/Postgraduate	2	2	2
Religion			
Islam	4	3	12
Christianity	3	2	1

the PHC system, and thus do not offer unsupervised or independent maternal health care services.

Mission homes are small and basic informal care facilities, that are affiliated and managed by religious organizations. They use practices such as prayer, and anointed elements such as water and oil to facilitate labour and birth process and help women and their babies stay in good health [33]. Most of these women are trained by predecessors in the same line of assignment and some of these CBAs receive a few months training facilitated at the local government level, including internship at primary healthcare facilities, to be certified as community birth attendants. In contrast to mission homes, mission hospitals are formal healthcare institutions that provide secondary and tertiary level of healthcare services and are involved in training of healthcare personnel [34].

Traditional birth homes are also informal healthcare settings mostly staffed by older women and few men who assist pregnant women during their childbirth by providing traditional remedies. Some of them are trained by their predecessors but in most cases, the job mantle is passed down through generations [35]. Similarly to CBAs, some receive a few months training facilitated at the local government level and internships at primary healthcare facilities to be certified as community birth attendants.

Data collection

The interviews were conducted face-to-face at the participant's home or in a private place at their place of work depending on the participant's preference and convenience. The primary languages used to conduct interviews are Yoruba in Lagos and Oyo; and Hausa in Jigawa. All interviews were audio-recorded. Audio recordings were translated and transcribed to English by OE, RQ, OO and KOA. Interviews in Lagos were conducted by OO, in Oyo by KOA and OB, and in Jigawa by JS and RS. JS, RS and OB are research nurses with experience in qualitative interview techniques, OO has a bachelor's degree with experience in qualitative interview techniques and KOA is a female researcher with a master's degree and experience in qualitative research. They are all fluent in English language and local dialects (Hausa and Yoruba). The interviewers had no personal relationship with the participants. We did not conduct repeat interviews. Transport fare/inconvenience fare was given as incentive to all participants.

In-depth interview guides were used to explore perception, motivation, barriers influence choice of place of antenatal care and delivery services. These guides were developed based on our literature review and the conceptual framework. The interview guide for healthcare providers included four sections focused on the participants' socio-demographic information, their perception of women's attitude towards ANC and delivery services in their place/setting of care, their perceptions and understanding of factors that influence women's choices of place of childbirth (see supplementary material). The interview guide for nursing mothers had four sections focused on participants' socio-demographic information, perception of maternal health services in PHCs, SHFs THFs, mission homes and CBA homes, previous childbirth experiences and exploring why women choose different providers for maternal health services. This approach helped to ensure we were able to capture a wide range of data relevant to understand the perception, motivation and barriers influence choice of place of antenatal care and delivery services (see supplementary material).

Data saturation was achieved after conducting between 40 and 45 interviews. The point of saturation was determined when we observed there was no new information in the data being collected. This wide range of approach helped to ensure we were able to capture a wide of data relevant to understand the perception, motivation, barriers influence choice of place of antenatal care and delivery services.

Data analysis

The analysis team included KOA, OE, RQ and AAB. KOA and JS independently reviewed transcripts for completeness and accuracy. An inductive thematic analysis was conducted utilising the Braun and Clarke reflexive thematic analysis approach [27]. The first step was data familiarisation, then OE, RQ and KOA blindly coded the data and generated descriptive codes in the first round. The codes were then discussed among the analysis team for interpretation. This stage was reflexive, interpretative and iterative and we aimed to understand the processes and implicit meaning of the codes in relation to the study objectives. Based on this, the codes were reviewed and classified into categories and themes. This process was iterative, involving several rounds of discussion and refining among the entire team.

Reflexivity

The interviewers were non-indigenes who had no prior relationship with the participants but spoke the same language as the participants. For the data analysis, AAB and KOA demonstrated cultural sensitivity, recognizing that being based in Oyo state and understanding cultural nuances, societal norms, and beliefs could shape their interpretation of participants' responses. They also acknowledged the potential influence of their professional roles, training, and experiences, including any preconceived notions about choice of place of childbirth. It was noted that AAB, as a male community health physician, might bring a clinical perspective to the analysis and

contextual knowledge of healthcare system in Nigeria and seeking behaviour from past provider-client relationship. KOA, on the other hand, being a female public health researcher, approached the analysis from a broader public health perspective, focusing on systemic issues, issues and social determinants of health. OE and RQ are nurses with clinical and research experience that could influence the view and interpretation of transcripts. Continuous reflections on different backgrounds were discussed in a small team and the larger research team.

Trustworthiness

We interviewed different categories of participants to capture different views on the choice of place of childbirth. All interviews were conducted in the language that the participant preferred. We triangulated our findings among these categories of participants. Furthermore, data analysis was done by four people, in which two are nurses, one is a public health researcher and the fourth person is a community health physician, (thus allowing for different perspectives. Findings were discussed with the broader team.

Ethics

Prior to interviewing and recording participants, we obtained verbal and written informed consent ensuring anonymity and confidentiality. We informed them the interviews were for research purposes and they can withdraw their participation at any time. All data is being stored at Oxygen for Life Initiative according to data management regulations. We received approval from Jigawa state Ministry of Health (ref: JGHREC/2023/152), Lagos state University Teaching hospital (ref: NHREC04/04/2008) and University of Ibadan/University College Hospital (UI/UCH) ethics committee (ref: UI/EC/22/0311).

Results

We recruited 44 participants, 25/44 were nursing mothers and 19/44 were HCWs (6 CBAs and 13 formal HCWs). All participants were females, 13/19 HCWs had tertiary level of education, and 12/19 of the healthcare providers practiced Christianity (Table 1). Jigawa had the highest number [13] of the 25 nursing mothers recruited, 13 were from Jigawa, 13 had secondary level of education and 19 practiced Islam (Table 2). We identified five major themes listed in Table 3.

Table 3 Themes and codes from analysis of transcripts

Themes	Codes
Preference for safe, comfortable and quality health services	• Insufficient HCWs expertise • Patient pathway in the facility • Bad attitude of HCWs • Lack of toilet facilities • Limited health supplies • No night shift in PHCs • Provider client interaction
Social diffusion and cultural/religious influences	• Experience from other mothers • Previous live delivery/ies • Spousal/Family decision • Family tradition • Shame • Social relationships • Believe in religious leader • Prayer sessions by CBAs • Gender preference for HCW • Show of strength
Physical, geographical and financial inaccessibility	• Lack of means of transportation • Financial constraints • Distance
Symbolic perception of health facilities	• Health facilities are for complication • PHC facilities are for the poor • A hostile facility • Health facilities are for emergency purposes
Misunderstanding of health promoting and preventive care in pregnancy.	• False belief about supplements and certain food

Preference for safe, comfortable and quality health services

Participants emphasised their preference for safe, comfortable, and high-quality healthcare services as key considerations influencing their choice of place of birth. In Oyo State, nursing mothers expressed concerns regarding the proficiency of HCWs and the apparent shortage of experienced personnel, particularly in PHCs. This shortage raised doubt about the competence of HCWs in PHCs to provide maternal health services, including the management of pregnancy-related complications, and scepticism about the quality of care available. This directly impacted trust in PHCs, prompting a preference for childbirth in secondary and tertiary health facilities. Similar sentiments were shared by nursing mothers in Lagos, who consistently expressed a preference for general hospitals and tertiary hospitals with readily available medical staff. This preference was largely driven by the perception that these hospitals possess the expertise necessary to handle potential childbirth complications. The presence of doctors, in particular, was cited as a crucial factor, instilling reassurance and confidence in women about the quality of care they would receive.

> *I went to the PHC close to my workplace, but their capacity cannot deliver the baby (Nursing mother 05 OYO).*

> *They (government hospitals) have good hands, they have qualified hands (specialist in every area) that can attend to people (Nursing mother 01 LAGOS).*

However, several nursing mothers expressed concerns regarding the pathway to care in secondary and tertiary level facilities, particularly the long waiting times and bureaucratic processes encountered during service utilisation. As expressed by one of the participants, these challenges deter women from selecting facilities for childbirth.

> *The hectic protocol of Adeoyo (SHF), where you will have to be going from one place to the other. I ran away from the stress that they gave us there (Nursing mother 03 OYO).*

Poor infrastructure and limited medical supplies were challenges repeatedly mentioned by nursing mothers and HCWs as influencing the choice of place of birth. In Oyo and Jigawa, nursing mothers and HCWs raised concerns regarding the lack of 24-hour services in PHCs, with a gap in access to care during nighttime hours. This lack of round-the-clock services raised significant apprehensions among nursing mothers while they were pregnant, as they recognized the unpredictable nature of pregnancy journeys. With the possibility of going into labour at any time, the absence of nighttime services in primary healthcare centres presented a potential barrier to accessing timely and necessary care during childbirth. In Jigawa, nursing mothers added the lack of toilet facilities as a major factor they consider while choosing a place for birth. This finding sheds light on the practical concerns of hygiene and comfort that women weigh in when making such a critical decision.

> *Some women don't come to give birth in the PHCs because of privacy, we don't have toilets for ANC clients and you know most pregnant women do urinate a lot and would be going to that outside toilet like 3 to 4 times before they go home and their toilet is not clean. Some women urinate outside. One also told me that people do get infected with different diseases because they used our toilet (HCW 01 JIGAWA).*

> *I went to a PHC to enquire, and they said they don't do night (provide 24 h services). So, I had to look for another place (Nursing mother 04 OYO).*

The poor attitude of HCWs in government owned/formal health facilities was an issue repeatedly highlighted by nursing mothers in Oyo and Jigawa. Nursing mothers reported discouraging interactions and disrespectful attitudes from HCWs during antenatal care visits, which subsequently deterred them from opting for facility-based childbirth at government facilities, and to some choosing private hospitals. Specifically, they valued the respectful treatment and attentive care provided by healthcare workers in private hospitals and expressed a preference for these facilities. This positive experience motivated their trust in private facility-based childbirth.

> *When I went to deliver at the general hospital, I was there for over an hour without being attended to. I was crying in pain and begging them to attend to me, then she (the health worker) came with anger and poured insults on me but in the private hospital, the doctor and the nurse were all on my head till I gave birth, and they were petting me and talking to me so calmly. I like the way the private hospital treats me, and I like the way they allow my husband to enter into the labour room with me. I prefer to give birth at a private hospital (Nursing mother 03 JIGAWA).*

Social diffusion and cultural/religious influences

In Oyo, we found significant social dynamics influencing decision-making with birth experiences shared by other mothers' a key consideration. Nursing mothers who had previous live birth experiences at non health facility-based settings (traditional birth homes, mission homes) recounted positive experiences associated with home and community births, citing factors such as safe childbirth, familial support and privacy that come with the birthing process. This was re-enforced by the diffusion of information within their social circles with stories of successful home births within their community encouraging them to choose the same path. Additionally, cultural and religious influences surrounding childbirth, coupled with longstanding traditions of relying on CBAs for assistance during childbirth, further influenced women's decision to give birth at home.

> *My pastor's wife had her 1st born and second born here (CBA). She didn't say anything bad about this place. She said they attended to her very well that when she's pregnant again there's nobody that will tell her before she comes back, she was even the one that gave me courage to come here (Nursing mother 01 OYO).*

Nursing mothers in the three states frequently highlighted spousal support in decision-making processes for where they would give birth. Specifically, joint decision-making within the family was reported to favour different locations in all states - births at mission homes or traditional birth homes and residential homes. They emphasised that the decision of place of birth was not solely made by the individual woman but rather involved input and consensus from the husband.

I wanted a private hospital. My husband approved of me going to a private hospital, but I also talked about it with his uncle too, who said he doesn't want us to go to a private hospital. Although his nephew (my husband) wanted a private hospital, he(uncle) was not in support of us going to a private hospital. When I was pregnant, he told us not to go early for antenatal until he later approved of private hospital (Nursing mother 03 OYO).

In Jigawa, personal comfort and cultural norms influenced women's preferences for the gender of healthcare providers during childbirth. Their husbands generally were against male HCWs providing services to their wives and the older women were not comfortable with being attended to or treated by younger female HCWs as this was perceived to be a threat to their self-esteem.

Some (husbands) don't allow their wives to come to the hospital because there are no female doctors here. Also, some women said because the nurses in the ANC unit are younger nurses. That some of the nurses are even more like their grandchildren so they don't want "small children of yesterday" to come and palpate them and see their nakedness (HCW 01 JIGAWA).

Physical, geographical and financial inaccessibility

Nursing mothers and HCWs in Lagos and Oyo repeatedly mentioned limited transportation options as challenges for women residing far from healthcare facilities. This lack of accessible transportation options was said to present a considerable obstacle for these women, as it hindered their ability to reach healthcare facilities in a timely manner when in labour. Consequently, many women felt compelled to resort to home birth or sought assistance from community birth attendants or mission homes for childbirth.

She (pregnant woman) said, yesternight when she was going into labour, the husband was not around, and there was no means of transportation to reach here (PHC facility), and nobody was ready to take her here (HCW 02 OYO).

When it rains, it is very crazy on this road and makes it very difficult to transport myself to the health facility (Nursing mother 01 LAGOS).

Among nursing mothers in Lagos, Oyo and Jigawa states, distance from formal health facilities emerged as a prominent factor motivating them to opt for home childbirths and other non-facility childbirths. This was particularly pronounced in rural areas where healthcare facilities were often situated far from communities. The perceived convenience and accessibility of CBAs within close proximity to their homes played a pivotal role in shaping women's preferences for home births.

The distance from the home is very far from healthcare facilities which is the reason I make use of this place (CBA), it is closer to my house. (Nursing mother 02 LAGOS)

Economic factors such as financial constraints influenced decisions on choice of place of birth as well, with some women opting for home births, childbirth at mission homes as the cost of formal healthcare was too high. HCWs and nursing mothers in three states confirmed this factors, but there was also a notable mention of nursing mothers seeking the assistance of community or traditional birth attendants, not only for financial reasons but also due to the empathy and understanding they offered.

Some women don't have the money for a bike to go to the hospital. In such a situation it is only when the women are having challenges with the pregnancy, they would think of accessing any facility that is close to them. If not those women that are ok, they won't go anywhere (HCW 01 JIGAWA).

I chose to give birth with the help of a community birth attendant not just because it was more affordable, but also because they truly understand and care for us in ways that made me feel supported and respected (Nursing mother 01 OYO).

Symbolic perception of health facilities

In Jigawa, participants expressed the prevailing cultural belief that home based birth signifies in their words, "show of strength" which fostered hesitation towards facility based-birth. Also, healthcare facilities are predominantly perceived as a recourse for managing complications during childbirth, rather than as a primary option for birth.

Our culture demands women to show her strength by giving birth alone at home without going to the hospital. Some women because of this culture they would manage their labour alone and give birth alone in their room. It is when she pushes her baby out before she will call for help, especially multigravida (HCW 03 JIGAWA).

Conversely, nursing mothers in both Lagos and Oyo states voiced significant concerns regarding fear of caesarean section as a deterrent to secondary facility-based

childbirth. Specifically, they expressed apprehension about medical procedures and potential adverse outcomes during childbirth which deeply influenced their decision-making process, leading some women to opt against secondary facility-based childbirth.

> *I am fearful of general hospital because I think that everybody that goes to general hospital must undergo a surgical procedure (Nursing mother 02 LAGOS).*

Lack of awareness about the benefits of hospital births and ignorance about the possible complications that may arise from giving birth at a non-health facility-based institution clearly influenced decision-making among some nursing mothers in Jigawa state. Our results revealed a general lack of understanding among nursing mothers about the potential risks and complications that could arise during childbirth outside of a healthcare facility.

> *Honestly, I don't think they do tell us about the dangers of not giving birth in the hospital, except if they do say it but I wasn't there. They don't even tell us to come to the hospital and even if they do tell others, I don't know but they did not say I should come back to give birth to the best of my knowledge (Nursing mother 01 JIGAWA).*

Misunderstanding of health promoting and preventive care in pregnancy

HCWs highlighted the misinformation around haematinics (drugs that improve blood quality or quantity by increasing haemoglobin levels and red blood cell count such as folic acid) being issued at the facility during ANC that women in Jigawa believe can increase the size of their babies. This makes them avoid health facilities for ANC. Similarly, in Oyo good nutrition during pregnancy is believed to promote macrosomia (a condition where a newborn has an excessive birth weight) which may lead to caesarean section.

> *Some women don't want to come for ANC because they believe that iron supplements and folic acid are making babies to be big in-utero. So they won't come so that they won't be given the drugs (HCW 01 JIGAWA).*

> *We observed that some wombs are large as they (women) eat. You know what we eat is what the baby eats as well in the womb. The way the baby sees the food is the way the baby eats it. Therefore, it will increase the weight of the baby, so we would tell them when you want to eat, take liquid food like pap and drink a lot of water (CBA 02 OYO).*

Discussion

Our study sought to understand the experiences and perceptions that influence women's choice of where they access maternal health services in Lagos, Oyo and Jigawa. We found motivations for choice of place of birth are complex and contextual. Infrastructural deficits and limited HCW capacity deter women from utilising PHCs, while bureaucratic processes were barriers to service utilisation in secondary hospitals. In Jigawa, giving birth at home is regarded as a show of strength and giving birth at a hospital is culturally unusual. Additionally, misconceptions about adequate nutrition during pregnancy were described as barriers to uptake of ANC services.

Consistent with prior qualitative research in Ogun state and Lagos, Nigeria [23, 36] our study reveals widespread concerns among women regarding the expertise and availability of healthcare workers in PHCs. The perceived shortage of skilled personnel and poor infrastructure in PHCs significantly undermines women's confidence in these facilities for childbirth, leading them to prefer higher-level institutions perceived to offer better quality care. This is similar to the findings from Ebonyi state which pointed cost as the major barrier to utilizing health facilities for childbirth [37]. Our findings indicate that pregnant women prefer to choose a trusted and dependable facility for planned childbirth which can accommodate their needs reliably at any time of day, i.e. facilities where 24-hour services are being offered and not affected by strikes. In addition, our study showed that women valued respectful care as they consciously sought healthcare in facilities where they felt heard and valued as a client. Investment in the healthcare workforce including respectful care trainings, infrastructure improvement and robust monitoring are recommended to enhance women's confidence in utilising primary healthcare centres for childbirth in Nigeria [38].

WHO recommends a global target of at least 90% of all births being attended by a skilled birth attendant [39]. Although the SDG indicator 3.1.2–proportion of births attended by skilled health personnel—does not have an explicit SDG target, the SDG global target says, it is expected that it reaches a 'universal' coverage level, meaning that every woman gets this support at the time of birth [40]. The Nigerian government in partnership with other development partners and stakeholders have rolled out various affordable programs to improve maternal health service delivery. These include primary healthcare reforms and programs such as the Midwife Service Scheme(MSS), Saving One Million Lives (SOML), National Health Act and the Basic Health Care Provision Fund (BHCPF) to improve health service delivery and

uptake [11, 41, 42]. However, these programs require accountability and active involvement of the communities to have meaningful and sustainable impact.

The lack of good toilet facilities and non-availability of 24 hours coverage in some PHCs serve as motivation to opt against maternal healthcare utilization at the primary health care level. These findings underscore the persistent infrastructural deficit in PHC facilities in Nigeria. Despite government initiatives to revamp the PHCs, our findings suggest that these efforts have not yet yielded tangible and sustained improvements in healthcare accessibility and quality at the grassroots level [43]. This highlights a critical gap in translating policy initiatives into impactful outcomes on the ground. The continued infrastructural challenges, including inadequate facilities, equipment, and staffing, significantly hinder the provision of essential maternal healthcare services at the primary care level. Therefore, alongside addressing financial barriers, urgent attention is needed to strengthen PHC infrastructure and ensure sustained support for revitalization initiatives to effectively enhance maternal health services and outcomes in Nigeria.

The challenges women faced within healthcare settings, such as long waiting times, and bureaucratic processes, resonate with other studies which reported barriers to accessing maternal healthcare services [1, 24]. This highlights that pregnant women place significant importance on factors like comfort and a stress-free environment with hygiene and sanitary facilities, when selecting a location for receiving antenatal care and place of birth. While these factors deter women from seeking facility-based childbirth, they also highlight systemic deficiencies that need to be addressed through targeted healthcare system improvements in Nigeria [44, 45].

Similarly, the negative experiences reported by nursing mothers in our study, including disrespectful attitudes from healthcare workers in government-owned facilities, corroborate findings from previous research carried out in Benue, Nigeria, where experiences of disrespect and abuse from healthcare workers in maternal health facilities was reported [46, 47]. This also resonates with studies carried out in Kenya and Nepal whose findings showed that the negative attitude of health workers was in direct competition with the sympathetic, supportive and caring attitude of CBAs [48, 49]. This underscores the critical role of client-provider interactions and the impact of healthcare worker attitudes on women's healthcare-seeking behaviour. Our study showed that provider-client relationships and the quality of interpersonal care emerge as critical determinants influencing women's choices of healthcare facilities for childbirth. This requires a systemic solution including review of pre-service training and in-service continuous professional development. Anecdotal evidence suggests HCWs are subjected to abusive treatment during pre-service training, an unfriendly training environment which might have shaped their perception about client relationships [50]. However, training and supporting, healthcare workers on client-entered midwifery care is necessary to improve respectful and skilled maternal care, which ultimately will improve client satisfaction, promote maternal health service utilization and improve maternal and child health outcomes [51–54]. Therefore, pre-service training of healthcare workers should emphasize on respectful and client-centred care [53, 54].

The influence of social dynamics, cultural norms, economic constraints, and limited transportation options on women's childbirth decisions is consistent with findings from Delta state, Nigeria which reported reasons such as husband or family disapproval and cultural prohibition of hospital birth, long distance and no available transport to health facilities [55, 56]. Financial considerations are a crucial factor that often dictate women's decisions regarding healthcare utilisation, highlighting the need for targeted interventions to address economic disparities and enhance accessibility to maternal healthcare services [57]. This finding about cost and decision making power by husbands and family was reiterated in the study carried out in Gombe as a major factor influencing place of childbirth as well as in Malawi which emphasised the high total cost of the materials and consumables pregnant women are expected to come along with to the hospital [58, 59].

In our study, we found evidence of social norms as a strong motivating factor for home childbirth among women in Northern Nigeria, with women who have home childbirth celebrated as being "strong". This is similar to the findings from a study in Kenya reporting that home birth 'makes a real woman' [60]. This cultural value appeared to outweigh considerations of the risks associated with home birth versus the benefits and safety offered by facility-based births [61–63]. Community engagement and culturally sensitive healthcare approaches are essential for addressing these factors and promoting appropriate maternal healthcare seeking and utilisation behaviours [64, 65].

The symbolic perception of health facilities as a negative space for management of complicated pregnancy highlight the need for more public awareness on benefits of formal healthcare access during pregnancy and improved community-facility linkages to foster utilization of maternal healthcare services [66, 67]. The misinformation, particularly regarding supplement use during pregnancy, significantly influences women's decisions to avoid hospital births. This reflects a critical barrier to accessing essential maternal health services [65, 68]. The false belief that taking supplements could increase foetal size highlights a fundamental misunderstanding

of prenatal nutrition and its impact on foetal development. This is similar to findings in Uganda which reported eating certain food like honey, vegetables and meat during pregnancy generally caused foetal skin fissures (abnormal skin folding or separation) and excessive birth weight [69]. This misconception likely stems from broader symbolic perceptions of health facilities and distrust in healthcare, and lack of understanding of benefit of food nutrition in pregnancy [70, 71]. Furthermore, the assumption that eating certain nutritious food causes intrauterine growth restriction, anaemia, and increased negative outcomes underscores the urgent need for targeted education and interventions to dispel myths and promote uptake of health promoting practices during pregnancy [72]. Addressing these misconceptions requires a multi-faceted approach that engages pregnant mothers and their wider network of social support healthcare workers, community leaders, and community birth attendants to deliver accurate information and culturally sensitive maternal health education [63, 73]. By addressing the misconceptions and enhancing trust in healthcare services, we can empower pregnant women in Nigeria to make informed decisions that optimise maternal and foetal health outcomes [74].

Limitations

One of the limitations in this study is that nursing mothers may have felt compelled to provide responses they believed were expected or viewed favorably, particularly when interviews were conducted within healthcare facilities. This bias could have led some women to express more positive opinions about the facilities than they genuinely felt. To minimise this, we conducted the interviews in a private place and assured participants that the interview was confidential. Second, due to the recruitment of participants being voluntary, participants who preferred not to take part may have had different important opinions from those who agreed to participate. Our study setting was limited to Western and Northern Nigeria, excluding Eastern Nigeria where there may have been different experiences, and is a potential constraint on the generalisability of our findings.

Conclusion

We found women's choice of place of birth is influenced by a complex interplay of factors. Prominent among these are health system inadequacies, socio-economic influences, and the desire for comfortable and quality maternal healthcare. HCWs, CBAs, and nursing mothers highlighted these factors as critical in shaping women's decisions regarding where to give birth. The implications of these findings call for multifaceted interventions at the policy, healthcare delivery, community engagement, and individual levels to overcome the barriers and promote safer, more comfortable, and accessible maternal healthcare services. Therefore, we recommend staff support and motivation to improve health service delivery, inclusive supportive supervision to improve facility community linkage, and a post discharge client satisfaction survey to measure maternal care satisfaction. In addition, there should be community health education for women on the importance of antenatal care, facility-based births, postpartum care and their healthcare rights. Toll-free hotlines should be made available for clients to provide feedback and report any issues encountered while receiving care. We also recommend health system strengthening interventions such as infrastructural supports, recruitment and continuous in-service training for healthcare workers on respectful and client-centered care, and adequate healthcare financing and accountability. Healthcare delivery can explore integrating CBAs into the formal healthcare systems in Lagos and Oyo as this is being done in Jigawa state. Policies that ensure respectful maternal care and patient-centered approaches in health facilities should be strictly enacted. Furthermore, community engagement should be done involving community leaders including women's groups while sensitizing and advocating for the benefits of childbirth by a skilled birth attendant. Further research should be conducted on effectiveness of integrating CBA into formal healthcare system and how it affects maternal and child health outcomes and women's trust in health facilities.

Abbreviations

ANC	Antenatal Care
BHCPF	Basic Health Care Provision Fund
CBAs	Community Birth Attendants
HCWs	Healthcare workers
LGA	Local Government Area
MSS	Midwife Service Scheme
MMR	Maternal Mortality Ratio
MNCH	Maternal, Newborn and Child Health
NDHS	National Demographic Health Survey
NPHCDA	National Primary Health Care Development Agency
NDHS	Nigeria Health Demographic Survey
PHCs	Primary Health Centres
SOML	Saving One Million Lives SHF-Secondary Health Facilities
SDG	Sustainable Development Goal
THF	Tertiary Health Facility

Supplementary Information

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Supplementary Material 1

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Author contributions

AAB, KOA, and AGF conceived and designed the study. KOA, OB, OO, JS, JZS and RNS were involved in data collection with oversight from AAB and AGF. KOA, OE, RQ, JS and AAB analysed the data. KOA and AAB drafted

the manuscript with inputs from CK and AGF. CK critically reviewed the manuscript for intellectual and scientific contents. All authors read and approved the final version of the manuscript.

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Data availability
The datasets used and/or analysed during the current study are not publicly available due to privacy restrictions of the participants but are available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate
This study adhered to the principles outlined in the Helsinki Declaration. Prior to interviewing and recording participants, we obtained verbal and written informed consent ensuring anonymity and confidentiality. We informed them the interviews were for research purposes and they can withdraw their participation at any time. We received ethical approval from Jigawa state Ministry of Health (ref: JGHREC/2023/152), Lagos state University Teaching hospital (ref: NHREC04/04/2008) and University of Ibadan/University College Hospital (UI/UCH) ethics committee (ref: UI/EC/22/0311).

Consent for publication
Not applicable.

Clinical trial
Not applicable.

Competing interests
The authors declare no competing interests.

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References

1. Ajegbile ML. Closing the gap in maternal health access and quality through targeted investments in low-resource settings. J Glob Heal Reports [Internet]. 2023 Oct 13 [cited 2024 Mar 12];7:e2023070. Available from: https://doi.org/10.29392/001c.88917
2. UNICEF. Trends in maternal mortality 2000 to 2020: estimates by WHO, UNICEF, UNFPA, World Bank Group and UNDESA/Population Division [Internet]., 2023 [cited 2024 Mar 25]. Available from: https://www.who.int/publications/i/item/9789240068759
3. WHO. Maternal mortality rates and statistics - UNICEF DATA [Internet]. 2023 [cited 2024 Mar 25]. Available from: https://data.unicef.org/topic/maternal-health/maternal-mortality/
4. Olamijulo JA, Olorunfemi G, Okunola H. Trends and causes of maternal death at the Lagos University teaching hospital, Lagos, Nigeria (2007–2019). BMC Pregnancy Childbirth [Internet]. 2022;22(1):1–12. Available from: https://doi.org/10.1186/s12884-022-04649-4
5. WHO. New global targets to prevent maternal deaths [Internet]. 2021 [cited 2024 Apr 10]. Available from: https://www.who.int/news/item/05-10-2021-new-global-targets-to-prevent-maternal-deaths
6. UNICEF. SDG Goal 3. Good Health and Well-being - UNICEF DATA [Internet]. 2024 [cited 2024 Apr 10]. Available from: https://data.unicef.org/sdgs/goal-3-good-health-wellbeing/
7. WHO. Targets of Sustainable Development Goal 3 [Internet]. 2024 [cited 2024 Apr 10]. Available from: https://www.who.int/europe/about-us/our-work/sustainable-development-goals/targets-of-sustainable-development-goal-3
8. Adewoyin Y, Odimegwu CO, Bassey T, Awelewa OF, Akintan O. National and subnational variations in gender relations and the utilization of maternal healthcare services in Nigeria. PAMJ. 2022; 4228 [Internet]. 2022 May 12 [cited 2024 Mar 25];42(28). Available from: https://www.panafrican-med-journal.com/content/article/42/28/full
9. Adedokun ST, Uthman OA, Bisiriyu LA. Determinants of partial and adequate maternal health services utilization in Nigeria: analysis of cross-sectional survey. BMC Pregnancy Childbirth. 2023;23(1):1–11.
10. UNICEF. Delivery care - UNICEF DATA [Internet]. 2024 [cited 2024 Apr 10]. Available from: https://data.unicef.org/topic/maternal-health/delivery-care/
11. UNICEF. Antenatal care - UNICEF DATA [Internet]. 2024 [cited 2024 Apr 10]. Available from: https://data.unicef.org/topic/maternal-health/antenatal-care/
12. WHO. WHO harp on efficient investment in Primary Healthcare. as the Backbone for a resilient health system| WHO| Regional Office for Africa [Internet]. 2023 [cited 2024 Jul 23]. Available from: https://www.afro.who.int/countries/nigeria/news/who-harp-efficient-investment-primary-healthcare-backbone-resilient-health-system
13. Chukwunedu C. President Tinubu unveils the Nigerian Health Sector Renewal Investment Initiative - Nairametrics. [cited 2024 Apr 19]; Available from: https://nairametrics.com/2023/12/13/president-tinubu-unveils-the-nigerian-health-sector-renewal-investment-initiative/
14. Davidson FW. The World Bank The World Bank. 2015;(December):20433.
15. NPC/ICF, Nigeria Demographic, USA: NPC and ICF. and Health Survey 2018. Abuja, Nigeria, and Rockville, Maryland,; 2019 - Google Search. 2018; Available from: https://www.google.com/search?q=National+Population+Commission+%2528NPC%2529+%255BNigeria%255D%252C+ICF.+Nigeria+Demographic+and+Health+Survey+2018.+Abuja%252C+Nigeria%252C+and+Rockville%252C+Maryland%252C+USA%253A+NPC+and+ICF%253B+2019%26source=hp%26ei=mDmjYc77Da-GjLsPwMewIA%26ifls
16. Kifle MM, Kesete HF, Gaim HT, Angosom GS, Araya MB. Health facility or home delivery? Factors influencing the choice of delivery place among mothers living in rural communities of Eritrea. J Heal Popul Nutr [Internet]. 2018 Oct 22 [cited 2024 Mar 13];37(1):1–15. Available from: https://link.springer.com/articles/https://doi.org/10.1186/s41043-018-0153-1
17. Yahya MB, Pumpaibool T. Factors influencing the decision to choose a birth center by pregnant women in Gombe state Nigeria: baseline survey. J Heal Res. 2019;33(3):228–37.
18. Abad N, Uba BV, Patel P, Barau DN, Ugochukwu O, Aliyu N et al. A rapid qualitative assessment of barriers associated with demand and uptake of health facility-based childhood immunizations and recommendations to improve immunization service delivery in Sokoto State, Northwest Nigeria, 2017. Pan Afr Med J [Internet]. 2021 [cited 2024 Jan 8];40(Suppl 1):10. Available from: /pmc/articles/PMC9475061/.
19. Adedokun ST, Uthman OA. Women who have not utilized health service for delivery in Nigeria: who are they and where do they live? BMC Pregnancy Childbirth. 2019;19(1):1–14.
20. Ajayi AI, Ahinkorah BO, Seidu AA. I don't like to be seen by a male provider: health workers' strike, economic, and Sociocultural reasons for home birth in settings with free maternal healthcare in Nigeria. Int Health. 2023;15(4):435–44.
21. Victor Kyari G, Zubairu Tajo A, Ruth John C, Ibrahim M, Micah D, Istifanus Anekoson J, et al. Determinants of the choice of healthcare services during and after pregnancy in some selected rural areas in Kaduna. Sci World J [Internet]. 2020;15(4):2020. Available from: www.scienceworldjournal.org.
22. Mekwunyei LC, Odetola TD. Determinants of maternal health service utilisation among pregnant teenagers in delta State, Nigeria. Pan Afr Med J. 2020;37(81):1–17.
23. Adedokun ST, Uthman OA. Women who have not utilized health Service for Delivery in Nigeria: Who are they and where do they live? BMC Pregnancy Childbirth [Internet]. 2019 Mar 13 [cited 2024 Apr 10];19(1):1–14. Available from: https://link.springer.com/articles/https://doi.org/10.1186/s12884-019-2242-6
24. Akaba GO, Dirisu O, Okunade KS, Adams E, Ohioghame J, Obikeze OO et al. Barriers and facilitators of access to maternal, newborn and child health services during the first wave of COVID-19 pandemic in Nigeria: findings from a qualitative study. BMC Health Serv Res [Internet]. 2022;22(1):1–14. Available from: https://doi.org/10.1186/s12913-022-07996-2
25. Omer S, Zakar R, Zakar MZ, Fischer F. The influence of social and cultural practices on maternal mortality: a qualitative study from South Punjab, Pakistan.

Reprod Health [Internet]. 2021;18(1):1–12. Available from: https://doi.org/10.1186/s12978-021-01151-6
26. Anderson RM. Revisiting the behavioral model and access to medical care: does it matter? J Heal Soc Behav. 1995;26(1):1–10.
27. Braun V, Clarke V. Reflecting on reflexive thematic analysis. Qual Res Sport Exerc Heal [Internet]. 2019;11(4):589–97. Available from: https://doi.org/10.1080/2159676X.2019.1628806
28. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. Int J Qual Heal Care [Internet]. 2007 Dec 1 [cited 2024 Apr 10];19(6):349–57. Available from: https://doi.org/10.1093/intqhc/mzm042
29. ANDERSEN R. The value of a salicylate-free analgesic following dental surgery. Curr Ther Res - Clin Exp. 1970;12(10):645–7.
30. Wright KO, Fagbemi T, Omoera V, Johnson T, Aderibigbe AA, Baruwa B, et al. A population-based Estimation of maternal mortality in Lagos State, Nigeria using the indirect sisterhood method. BMC Pregnancy Childbirth. 2024;24(1):1–6.
31. NURHI. Family planning/ childbirth spacing services advocacy kit. Oyo State. 2011;9.
32. Sharma V, Brown W, Kainuwa MA, Leight J, Nyqvist MB. High maternal mortality in Jigawa State, Northern Nigeria estimated using the sisterhood method. BMC Pregnancy Childbirth. 2017;17(1):1–6.
33. Orji EO, Dare FO, Makinde ON, Fasubaa OB. Determinants of mission house delivery among booked patients in a Nigerian teaching hospital. J Obstet Gynaecol (Lahore). 2001;21(5):482–4.
34. Awotunde OT, Amole IO, Adesina SA, Adeniran A, OlaOlorun DA, Durodola AO, et al. Pattern of antenatal care services utilization in a mission hospital in Ogbomoso South-west Nigeria. J Adv Med Pharm Sci. 2019;21(2):1–11.
35. Ohaja M, Murphy-Lawless J, Dunlea M. Midwives' views of traditional birth attendants within formal healthcare in Nigeria. Women and Birth [Internet]. 2020;33(2):e111–6. Available from: https://doi.org/10.1016/j.wombi.2019.01.005
36. Oluwakemi OE, Feyisola AO, Alero RA, Omowunmi BQ. Choice of healthcare facilities for antenatal care, delivery services and satisfaction received by mothers of infants in Lagos, Nigeria. Afr J Health Sci. 2024;36(4):348–61.
37. Eke PC, Ossai EN, Eze II, Ogbonnaya LU. Exploring providers' perceived barriers to utilization of antenatal and delivery services in urban and rural communities of Ebonyi state, Nigeria: A qualitative study. PLoS One [Internet]. 2021;16(5 May):1–18. Available from: https://doi.org/10.1371/journal.pone.0252024
38. Zajac S, Woods A, Tannenbaum S, Salas E, Holladay CL. Overcoming challenges to teamwork in healthcare: A team effectiveness framework and Evidence-Based guidance. Front Commun. 2021;6(March):1–20.
39. World Health Organization. Defining competent maternal and newborn health professionals. 2018. 1–42 p.
40. United Nations Children's Fund. DELIVERING FOR WOMEN: Improving maternal health. 2022;3–6.
41. Croke K, Ogbuoji O. Health reform in Nigeria: the politics of primary health care and universal health coverage. Health Policy Plan [Internet]. 2024 Jan 9 [cited 2025 Feb 7];39(1):22–31. Available from: https://doi.org/10.1093/heapol/czad107
42. Abimbola S, Okoli U, Olubajo O, Abdullahi MJ, Pate MA. The midwives service scheme in Nigeria. PLoS Med [Internet]. 2012 May [cited 2025 Feb 7];9(5). Available from: https://pubmed.ncbi.nlm.nih.gov/22563303/
43. Aigbiremolen AO, Alenoghena I, Eboreime E, Abejegah C. Primary Health Care in Nigeria: From Conceptualization to Implementation. J Med Appl Biosci [Internet]. 2014 [cited 2024 Apr 23];6(2277–0054). Available from: https://www.researchgate.net/publication/269703981_Primary_Health_Care_in_Nigeria_From_Conceptualization_to_Implementation
44. Kifle MM, Kesete HF, Gaim HT, Angosom GS, Araya MB. Health facility or home delivery? Factors influencing the choice of delivery place among mothers living in rural communities of Eritrea. J Heal Popul Nutr. 2018;37(1):1–15.
45. Puthussery S, Bayih WA, Brown H, Aborigo RA. Promoting a global culture of respectful maternity care. BMC Pregnancy Childbirth [Internet]. 2023;23(1):1–3. Available from: https://doi.org/10.1186/s12884-023-06118-y
46. Orpin J, Puthussery S, Davidson R, Burden B. Women's experiences of disrespect and abuse in maternity care facilities in benuestate, Nigeria. BMC Pregnancy Childbirth. 2018;18(1):1–9.
47. Doctor HV, Nkhana-Salimu S, Abdulsalam-Anibilowo M. Health facility delivery in sub-Saharan Africa: successes, challenges, and implications for the 2030 development agenda. BMC Public Health. 2018;18(1):1–12.
48. Ochieng CA, Odhiambo AS. Barriers to formal health care seeking during pregnancy, childbirth and postnatal period: A qualitative study in Siaya County in rural Kenya. BMC Pregnancy Childbirth. 2019;19(1):1–14.
49. Onta S, Choulagai B, Shrestha B, Subedi N, Bhandari GP, Krettek A. Perceptions of users and providers on barriers to utilizing skilled birth care in mid- and far-western Nepal: A qualitative study. Glob Health Action. 2014;7(1):1–9.
50. Fukkink R, Helmerhorst K, Gevers Deynoot-Schaub M, Sluiter R. Training Interaction Skills of Pre-service ECEC Teachers: Moving from in-Service to Pre-service Professional Development. Early Child Educ J [Internet]. 2019;47(4):497–507. Available from: https://doi.org/10.1007/s10643-019-00928-6
51. Lunda P, Minnie CS, Lubbe W. Perspectives of midwives on respectful maternity care. BMC Pregnancy Childbirth. 2024;24(1):721.
52. Moridi M, Pazandeh F, Hajian S, Potrata B. Midwives' perspectives of respectful maternity care during childbirth: A qualitative study. PLoS One [Internet]. 2020;15(3):1–12. Available from: https://doi.org/10.1371/journal.pone.0229941
53. Umar N, Quaife M, Exley J, Shuaibu A, Hill Z, Marchant T. Toward improving respectful maternity care: A discrete choice experiment with rural women in Northeast Nigeria. BMJ Glob Heal. 2020;5(3):1–10.
54. Muhayimana A, Kearns I. Healthcare providers ' perspectives on sustaining respectful maternity care appreciated by mothers. in Five Hosp Rwanda. 2024;1–18.
55. Fagbamigbe AF, Idemudia ES. Assessment of quality of antenatal care services in Nigeria: evidence from a population-based survey. Reprod Health. 2015;12(1):1–9.
56. Ahuru RR. Maternal care utilization in primary healthcare centers in Nigerian communities. Community Heal Equity Res Policy. 2022;42(3):325–36.
57. Olonade O, Olawande TI, Alabi OJ, Imhonopi D. Maternal mortality and maternal health care in Nigeria: implications for socio-economic development. Open Access Maced J Med Sci. 2019;7(5):849–55.
58. Hill Z, Scheelbeek P, Schellenberg J, Hamza Y. Everything is from God but it is always better to get to the hospital on time: A qualitative study with community members to identify factors that influence facility delivery in Gombe State, Nigeria. Glob Health Action [Internet]. 2020;13(1). Available from: https://doi.org/10.1080/16549716.2020.1785735
59. Andegiorgish AK, Elhoumed M, Qi Q, Zhu Z, Zeng L. Determinants of antenatal care use in nine sub-Saharan African countries: a statistical analysis of cross-sectional data from Demographic and Health Surveys. BMJ Open [Internet]. 2022 Feb 1 [cited 2024 Apr 10];12(2):e051675. Available from: https://bmjopen.bmj.com/content/12/2/e051675
60. Dahlberg M, Södergård B, Thorson A, Alfvén T, Awiti-Ujiji O. Being perceived as 'a real woman' or following one's own convictions: a qualitative study to understand individual, family, and community influences on the place of childbirth in Busia, Kenya. Cult Heal Sex. 2015;17(3):326–42.
61. Owigho O, Isara A. Women's perception of quality and utilization of antenatal care and delivery services in Oshimili South local government area of Delta State, Nigeria. J Community Med Prim Heal Care. 2022;34(1):81–98.
62. Kanyangarara M, Munos MK, Walker N. Quality of antenatal care service provision in health facilities across sub-Saharan Africa: evidence from nationally representative health facility assessments. J Glob Health. 2017;7(2).
63. Adatara P, Afaya A, Baku EA, Salia SM, Asempah A. Perspective of traditional birth attendants on their experiences and roles in maternal health care in rural areas of Northern Ghana. Int J Reprod Med. 2018;2018:1–10.
64. Udenigwe O, Okonofua FE, Ntoimo LFC, Imongan W, Igboin B, Yaya S. Perspectives of policymakers and health providers on barriers and facilitators to skilled pregnancy care: findings from a qualitative study in rural Nigeria. BMC Pregnancy Childbirth. 2021;21(1):1–14.
65. Salmanu RA, Odetola TD. A community-based intervention study for enhancing Hausa women's knowledge about maternal healthcare services. Int J Africa Nurs Sci [Internet]. 2024;20(February):100669. Available from: https://doi.org/10.1016/j.ijans.2024.100669
66. Iuliano A, Burgess RA, Shittu F, King C, Bakare AA, Valentine P, et al. Linking communities and health facilities to improve child health in low-resource settings: a systematic review. Health Policy Plan. 2024;39(6):613–35.
67. Iuliano A, Shittu F, Colbourn T, Salako J, Bakare D, Bakare AAA et al. Community perceptions matter: A mixed-methods study using local knowledge to define features of success for a community intervention to improve quality of care for children under-5 in Jigawa, Nigeria. BMJ Open. 2023;13(11).
68. Nwankwo CU, Ezenwaka CE. The barriers preventing pregnant women from accessing midwife-led antenatal care in Nigeria. J Nurs Educ Pract. 2020;10(5):36.

69. Acire PV, Bagonza A, Opiri N. The misbeliefs and food taboos during pregnancy and early infancy: a pitfall to attaining adequate maternal and child nutrition outcomes among the rural acholi communities in Northern Uganda. BMC Nutr. 2023;9(1):1–13.
70. Ope BW. Reducing maternal mortality in Nigeria: addressing maternal health services' perception and experience. J Global Health Rep. 2020;4:e2020028. https://doi.org/10.29392/001c.12733.
71. Fleary SA, Ettienne-Gittens R, Heffer RW. Perceptions of preventive health care and healthy lifestyle choices for low income families: A qualitative study. ISRN Prev Med. 2013;2013:1–6.
72. Ajuluchukwu EU. Nutritional practices and taboos among pregnant women attending antenatal care at general hospital in Kano. Northwest Nigeria. 2016;109–14.
73. Miller T, Smith H. Establishing partnership with traditional birth attendants for improved maternal and newborn health: A review of factors influencing implementation. BMC Pregnancy Childbirth. 2017;17(1):1–10.
74. Amutah-Onukagha PD, Rodriguez MPHN, Opara MPHM, Gardner MPHMSWI, Assan MPHM, Hammond BSMA. Progresses and challenges of utilizing traditional birth attendants in maternal and child health in Nigeria. Int J Matern Child Heal AIDS. 2018;6(2):130–8.

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