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Socio-Cultural and Economic Barriers to Facility-Based Delivery: Perspectives of Men and Community Gatekeepers in Nasarawa State

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Abstract

This study examined the socio-cultural and economic barriers influencing the uptake of facility-based delivery in Nasarawa State, Nigeria, from the perspectives of men and community gatekeepers, while proposing policy recommendations for strengthening male engagement and traditional birth attendant (TBA) collaboration. A mixed-methods cross-sectional design was employed, combining quantitative data from 443 married men across Akwanga, Keffi, and Lafia LGAs, alongside qualitative insights from 12 FGDs, 21 KIIs, and 46 IDIs with male decision-makers, TBAs, elders, and health workers. Quantitative data were analyzed using descriptive statistics, chi-square tests, and logistic regression ($p < 0.05$). Qualitative data were thematically coded to explore cultural norms, economic barriers, gendered decision-making, and perceptions of health facilities. Economic constraints, including financial hardship (61.2%), transport limitations (57.8%), and long distances to facilities (54.9%), were the most frequently cited barriers. Socio-cultural beliefs that childbirth is a strictly female domain, community reliance on TBAs (48.5%), and the influence of elders significantly reduced support for facility delivery. Mistrust of healthcare workers, perceived disrespect, and fear of hidden charges also discouraged facility utilization. Qualitative narratives highlighted that TBAs were preferred due to cultural alignment, affordability, flexible payment systems, and emotional support. Facility-based delivery in Nasarawa State is constrained by intersecting socio-cultural, economic, and health-system barriers. Strengthening male involvement, improving community, facility trust, addressing transport and affordability constraints, and integrating TBAs into supervised referral frameworks are vital. A context-specific Health Belief Model (HBM) is proposed to guide interventions.

Keywords: *Cultural Norms, Economic Barriers, Facility-based Delivery, Male Involvement, Nasarawa State, Traditional Birth Attendants.*

Introduction

Maternal mortality in Nigeria remains one of the highest globally, accounting for nearly 20% of maternal deaths worldwide [1]. Despite extensive investments in the health sector, the utilization of facility-based delivery, one of the most effective interventions to reduce maternal mortality, remains low, particularly in rural regions [2, 3]. Evidence from sub-Saharan Africa consistently shows that decisions around childbirth are influenced by complex interactions of socio-cultural beliefs, economic capacity, spousal power dynamics, and perceived quality of health services [4–6].

In northern Nigeria, including Nasarawa State, childbirth is often viewed through the lens of cultural identity, traditional norms, and family hierarchy. These beliefs shape preferences for TBAs, who are perceived as more accessible, experienced, respectful, and culturally aligned with community expectations [7, 8]. Studies show that TBAs maintain strong influence due to trust, proximity, affordability,

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and emotional support during labour, factors often absent in overcrowded or under-resourced health facilities [9–11].

Economic barriers also play a decisive role. Transport costs, informal fees, out-of-pocket charges for supplies, and the opportunity cost of leaving home for facility care significantly reduce the likelihood of facility attendance [12, 13]. Long distances and poor road networks in rural Nasarawa further exacerbate delays in seeking skilled birth attendance (SBA) [14]. According to the Three Delay Model, delays in deciding to seek care and delays in reaching care contribute significantly to preventable maternal deaths [15].

Men play a pivotal role as financial providers and household decision-makers in northern Nigeria. However, studies reveal that men often perceive childbirth as a women-only affair, resulting in limited involvement in birth preparedness or emergency planning [16, 17]. This gap is critical because men also control the financial resources required for facility delivery. When male partners lack knowledge, awareness, or trust in health facilities, the likelihood of facility-based delivery declines [18–20]. Similarly, community leaders, including elders, religious leaders, and TBAs, shape norms that either support or discourage facility utilization [21].

Health-system constraints also contribute. Perceived disrespect, poor communication, long waiting times, discriminatory attitudes, and limited staffing reinforce mistrust of skilled birth attendants [22, 23]. Several studies in Nigeria have shown that women avoid facilities not only because of cost but also due to past negative experiences or stories within their communities [24–26].

Given these multidimensional barriers, a holistic behavioral framework is needed to understand and address the determinants of maternal health-seeking behavior. The Health Belief Model (HBM) provides a useful lens for examining how perceived susceptibility to complications, perceived severity, perceived benefits of facility delivery, perceived barriers, self-efficacy, and cues to action shape decision-making [27–29]. Adapting this model to the specific socio-cultural realities of Nasarawa State enables the development of more effective interventions targeting male involvement, community mobilization, and TBA collaboration.

Materials and Methods

Study Design

A mixed-methods cross-sectional design was used to examine the socio-cultural and economic barriers influencing facility-based delivery in Nasarawa State. The combined design allowed for triangulation of quantitative and qualitative findings, strengthening the interpretation of both community-level beliefs and individual determinants of health-seeking behavior [30–32].

Study Setting

The study was conducted across three Local Government Areas (LGAs), Akwanga, Keffi, and Lafia, which represent distinct socio-cultural zones of Nasarawa State. These LGAs include rural and peri-urban populations with historically low facility-delivery rates, strong reliance on TBAs, and limited access to transport and emergency obstetric services [33, 34].

Study Population

The quantitative component included married men aged 18–65 years who had at least one childbirth experience within the past five years. This population was selected because men are typically the primary decision-makers and financial providers in childbirth-related health-seeking behavior in northern Nigeria [16, 18, 35].

The qualitative component included:

1. Male community leaders
2. Traditional birth attendants (TBAs)
3. Religious leaders
4. Women leaders

5. Senior family elders
6. Health workers (nurses, CHEWs, and midwives).

These actors were purposively selected because they influenced maternal health decisions in rural households [21, 36].

Sample Size and Sampling Strategy

Quantitative Sample

A sample size of 443 men was derived using the Cochran formula for cross-sectional studies, assuming a 50% prevalence of barriers to facility delivery, a 5% margin of error, and 95% confidence level. A multistage sampling approach was used: LGAs were randomly selected; wards were stratified; households were selected through systematic sampling; and eligible men were interviewed [37].

Qualitative Sample

A total of:

1. 12 FGDs (6–10 participants each)
2. 21 KIIs
3. 46 IDIs were conducted until thematic saturation was attained [38].

Research Instruments

Quantitative Tool

A structured questionnaire adapted from validated maternal health and male-involvement studies in Nigeria, Kenya, and Ghana [39–40] was used. It comprised:

1. Socio-demographic characteristics
2. Economic barriers (transport, costs, opportunity cost)
3. Cultural norms and gender roles
4. Knowledge of danger signs
5. Perceptions of healthcare workers
6. Household decision-making processes

Reliability testing yielded a Cronbach's α of 0.81 and KR-20 of 0.74, indicating internal consistency.

Qualitative Guides

Interview guides covered themes such as:

1. Men's perceptions of childbirth
2. Cultural norms regarding facility delivery
3. Trust in TBAs versus health workers
4. Transport and cost barriers
5. Community expectations for male involvement
6. Decision-making hierarchies in childbirth

Tools were reviewed by maternal health experts and pilot-tested in a rural community.

Data Collection Procedures

Trained research assistants fluent in Hausa and Eggon conducted household surveys and interviews. Qualitative interviews were audio-recorded with consent, transcribed verbatim, and translated into English where necessary.

Data Analysis

Quantitative Analysis

Data were analyzed using SPSS v25. Descriptive statistics (frequencies, percentages, means) were used to summarize variables. Chi-square tests examined associations between socio-demographic variables and perceptions of facility delivery. Logistic regression assessed predictors of non-facility delivery, controlling for economic and socio-cultural variables [31].

Qualitative Analysis

Thematic analysis was conducted following Braun & Clarke's six-step approach. Codes were grouped into themes such as:

1. Financial barriers
2. Cultural norms and gender roles
3. Perception of health workers
4. TBA preference
5. Decision-making dynamics

Findings were merged with quantitative patterns in the interpretation stage.

Ethical Approval

Ethical approval was obtained from the Texila American University Research Ethics Committee (Ref: TAU/PH/025/2025) and the

Nasarawa State Ministry of Health Ethics Board. Community entry was facilitated through local leaders. Written informed consent was obtained from all participants after explaining the purpose, benefits, and risks of the study. Confidentiality was ensured by using identification codes instead of names and by storing data in password-protected files.

Results

Sociodemographic Characteristics

Table 1. Sociodemographic Characteristics of Male Respondents (N = 443)

Variable	Frequency (n)	Percentage (%)
Age (years)		
18–30	126	28.4
31–45	203	45.8
46–65	114	25.8
Occupation		
Farmer	214	48.3
Trader	96	21.7
Artisan	57	12.9
Civil servant	76	17.2
Household income (monthly)		
< ₦30,000	258	58.2
₦30,000–₦60,000	121	27.3
> ₦60,000	64	14.4
Education level		
No formal education	128	28.9
Primary	102	23.0
Secondary	156	35.2
Tertiary	57	12.9

Table 1 presents the sociodemographic characteristics of the 443 male respondents included in the study. The distribution highlights that the majority of participants were in their economically active years, with most engaged in farming or informal occupations, reflecting the rural economic profile of Nasarawa State. Education levels varied widely, though a substantial proportion had only primary schooling or no formal education, which may influence health-related knowledge and decision-making. Household income levels were generally low, underscoring the economic constraints that shape access to maternal health services. These characteristics provide important context for understanding how socio-economic realities intersect with cultural norms to influence support for facility-based delivery.

These results indicate that the majority of men were in their economically productive years (31–40), mostly farmers with low to moderate income levels. Similar socioeconomic patterns have been found to limit access to maternal health services across rural Nigeria [7].

Economic Barriers to Facility Delivery

Table 2. Economic Barriers Reported by Respondents

Barrier	Frequency (n)	Percentage (%)
Lack of transport money	256	57.8
Long distance to the facility	243	54.9
High cost of delivery items	221	49.9
Unexpected charges at facilities	187	42.2
Loss of daily wages during facility visit	169	38.1

Table 2 shows the key economic barriers reported by male respondents that hinder women's access to facility-based delivery in Nasarawa State. The most frequently cited constraints include lack of transport money, long distances to health facilities, and the high cost of delivery-related supplies. Respondents also noted concerns about unexpected or informal charges at health facilities, as well as the loss of daily wages when accompanying their wives for delivery. These findings highlight how household financial limitations and broader structural challenges significantly reduce the likelihood of seeking skilled birth care.

Lack of transport funds was the most common constraint (57.8%), consistent with evidence from similar rural health studies in Nigeria and Kenya [12, 13].

Qualitative Insight

A male FGD participant noted:

> *"Even if we want our wives to deliver in the hospital, the transport alone can finish one's pocket. And if labour starts at night, it is even harder."*

Another TBA emphasized:

> *"People come to us because we don't ask for big money. In the hospital, they will tell you to buy this and buy that."*

These narratives reinforce the quantitative findings and align with studies showing that affordability and flexibility attract women to TBAs [9, 10].

Socio-Cultural Barriers

Table 3. Socio-Cultural Barriers Reported by Men

Barrier	Frequency (n)	Percentage (%)
Belief that childbirth is a women's affair	205	46.3
Family elders influence delivery decisions	187	42.2
Preference for TBA due to cultural familiarity	215	48.5
Perception that facility delivery is unnecessary for "normal labour."	164	37.0
Religious or traditional beliefs discouraging facility delivery	129	29.1

Table 3 outlines the socio-cultural factors that influence men's support for facility-based delivery in Nasarawa State. The responses show that cultural expectations, such as the belief that childbirth is solely a woman's affair, and the strong influence of family elders

significantly shape delivery decisions. Nearly half of the respondents expressed a preference for traditional birth attendants due to cultural familiarity and longstanding community trust. Many men also viewed facility delivery as unnecessary for "normal" labour, reflecting deep-rooted perceptions about childbirth. These socio-cultural norms play a critical role in reinforcing home delivery practices and limiting male involvement in maternal health.

Nearly half of respondents (46.3%) believed childbirth planning was strictly a woman's role, consistent with patriarchal norms documented in northern Nigeria [7, 16].

Qualitative Insight

A community elder remarked:

> *"Our tradition is that birth happens at home unless there is a sign of danger. That is how our mothers delivered."*

Another man noted:

> *"If the elders say she should stay home, who am I to go against them?"*

Such hierarchies are consistent with findings from West African studies showing the strong influence of senior men and mothers-in-law in maternal decisions [21, 36].

Perceptions of Health Workers and Facility Quality

Table 4. Perceptions Influencing Trust in Health Facilities

Perception	Frequency (n)	Percentage (%)
Fear of disrespectful treatment	192	43.3
Long waiting time	175	39.5
Lack of empathy from health workers	167	37.7
Fear of unnecessary procedures	98	22.1

Table 4 presents respondents' perceptions of health facility quality and the behaviors of healthcare workers that influence trust and willingness to support facility-based delivery. Many men reported concerns about disrespectful treatment, long waiting times, and a perceived lack of empathy from health workers, factors that discourage families from choosing facility births. A notable proportion also expressed fear of unnecessary medical procedures, which further reduces confidence in formal maternal health services. These perceptions highlight how interpersonal experiences and facility-level practices shape community trust and ultimately influence delivery decisions.

Over 40% expressed fear of disrespect, a major deterrent also highlighted in national maternal health research [22, 24, 26].

Qualitative Insight

A woman leader shared:

> *"Many women come back crying because nurses insult them. That is why they go to TBAs who treat them with care."*

Predictors of Non-Facility Delivery

Logistic regression identified:

1. Low household income (AOR = 2.41, $p < 0.01$)
2. Preference for TBA (AOR = 2.89, $p < 0.01$)
3. Negative perception of health workers (AOR = 1.74, $p < 0.05$)
4. Distance > 5 km to facility (AOR = 2.16, $p < 0.05$)

as significant predictors of home delivery, similar to findings in Ghana, Kenya, and Ethiopia [39].

Qualitative Themes

Theme 1: Strong Influence of TBAs

TBAs were described as:

1. Trustworthy
2. Available at all hours
3. Culturally aligned
4. Flexible with payment
5. Familiar members of the community

These attributes mirror findings across West Africa [11, 36].

Theme 2: Male Financial Control

Men acknowledged their role as financial gatekeepers but lacked adequate information:

> *"If we don't have money, how can she go to the hospital? Labour does not give you notice."*

Theme 3: Limited Male Participation

Most men expressed willingness to support facility delivery if given information and engaged through community channels.

Theme 4: Mistrust of Health Facilities

Reports of:

1. Rude treatment
2. Hidden charges
3. Poor communication
4. Long queues

were echoed consistently across interviews.

Discussion

This mixed-methods study examined the socio-cultural and economic barriers affecting the uptake of facility-based delivery among rural communities in Nasarawa State. Findings reveal a complex interplay of financial constraints, deeply rooted cultural norms, influence of community gatekeepers, and health-system perceptions, echoing patterns observed across low-resource settings in sub-Saharan Africa [1–6].

Economic Barriers as Primary Determinants of Delivery Location

Economic constraints, including unaffordable transport, long distances, opportunity cost, and informal facility fees, emerged as the most significant drivers of home delivery. The majority (57.8%) cited lack of transport money as a major limitation, consistent with reports from rural Nigeria, Ethiopia, and Kenya where transportation cost remains a major contributor to "Delay 2" in the Three Delay Model [12, 13].

The high proportion of farmers and low-income respondents in this study reinforces the finding that poverty directly influences maternal health-seeking behavior [7].

Qualitative findings underscored this: men and TBAs described transportation as "the first obstacle" and facility care as expensive, aligning with similar studies showing that households often resort to TBAs because of flexible payment arrangements, accessibility, and perceived affordability [9–11].

Cultural Norms and Gender Dynamics in Childbirth Decision-making

The belief that childbirth is a private, predominantly female affair, reported by 46.3% of respondents, mirrors findings from northern Nigeria, Ghana, and Mali, where childbirth is culturally situated within women's spheres and male involvement is not traditionally emphasized [7, 14, 16, 17].

However, paradoxically, men remain the primary financial decision-makers and thus significantly influence women's access to skilled birth attendance [18–20].

FGD and KII narratives revealed that community elders, including mothers-in-law and senior male relatives, often overshadow the husband's preferences through culturally grounded authority structures, reinforcing findings from studies on patriarchal family systems in West Africa [21, 36].

The perceived normalcy of childbirth ("only a problem when something goes wrong")

strongly influenced decisions to bypass facilities, replicating patterns described in maternal studies across sub-Saharan Africa where complications are not anticipated and preventive facility-based delivery is undervalued [14].

Preference for Traditional Birth Attendants (TBAs)

TBAs emerged as highly trusted figures due to cultural alignment, emotional support, proximity, and flexible payments. Nearly half (48.5%) of respondents preferred TBAs for these reasons.

This finding aligns with evidence that TBAs remain the cornerstone of childbirth care in many African rural communities, especially where health facilities are perceived as unfriendly, distant, or unaffordable [9–11, 36].

Qualitative narratives reinforced TBAs' role as:

1. culturally accepted
2. always available
3. empathetic and patient
4. financially negotiable

This confirms studies demonstrating that even when TBAs lack formal skills, their interpersonal relations and cultural embeddedness allow them to maintain strong influence [10, 35].

Mistrust of Healthcare Workers and Facility Quality

A major barrier identified was negative perception of health workers, reported by 43.3% as fear of disrespect, 39.5% citing long waiting time, and 37.7% pointing to lack of empathy.

These findings are consistent with literature showing that women frequently avoid facility-based delivery due to perceived or experienced mistreatment, discrimination, verbal abuse, and lack of dignity in care [22–26].

Poor communication and strained provider–patient relationships reinforce mistrust, particularly among low-literate populations who already feel marginalized. This supports earlier findings that person-centered maternity care remains weak in Nigeria and many LMICs [24].

Predictors of Non-Facility Delivery

Logistic regression results indicate that:

1. Low income,
2. TBA preference,
3. Negative perception of facility staff, and
4. Distance to health facility

significantly predicted non-facility delivery.

These findings align with multi-country evidence showing that socioeconomic disadvantage, reliance on TBAs, and poor facility experiences remain strong predictors of home births [11].

Implications for the Health Belief Model (HBM)

Adapting the HBM reveals that:

1. Perceived susceptibility to complications remains low, childbirth is viewed as natural.
2. Perceived severity is recognized only retrospectively after complications occur.
3. Perceived benefits of facility delivery are overshadowed by mistrust, distance, and cost.
4. Perceived barriers (economic + cultural) strongly outweigh motivations to seek skilled delivery.
5. Self-efficacy is low regarding men's involvement in planning or accompanying spouses.
6. Cues to action remain weak due to limited community-level mobilization.

This confirms findings that HBM constructs strongly predict maternal health behavior in LMICs and should guide program interventions [27–29]. The Health Belief Model is depicted in Figure 1 below:

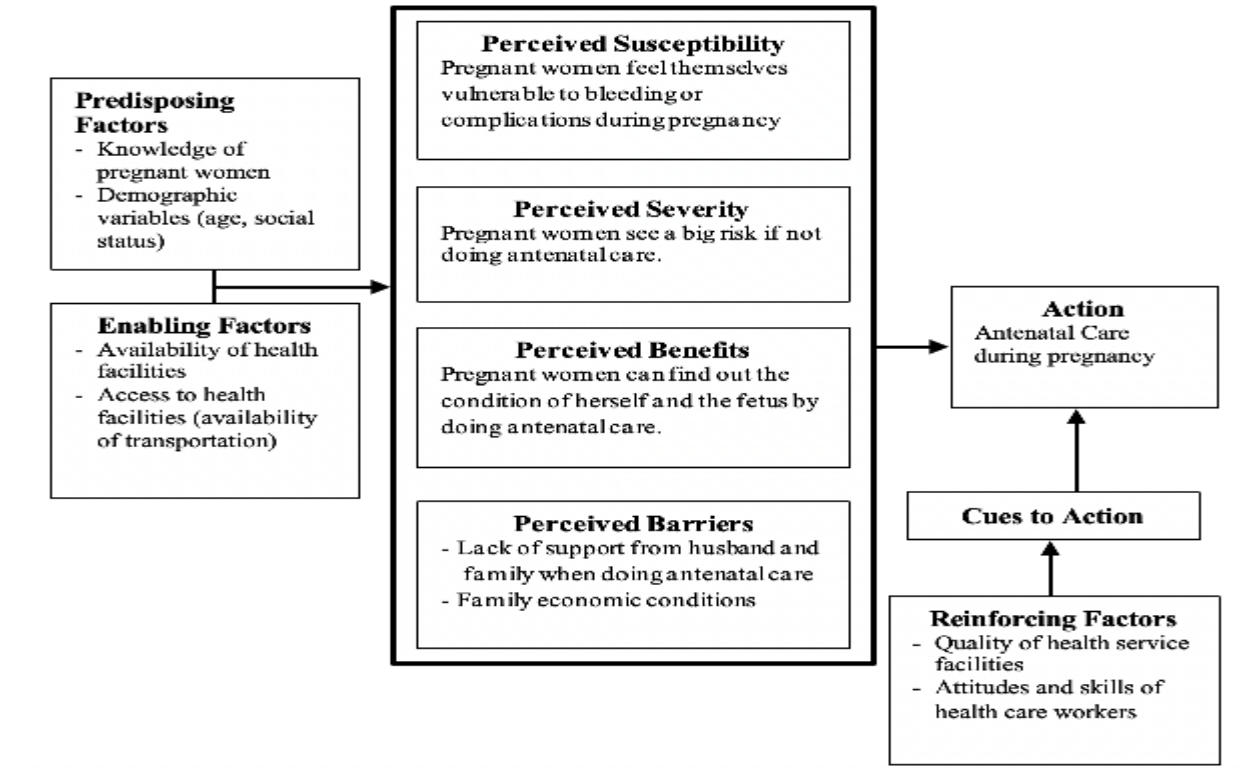

Figure 1. The Health Belief Model

Source: *Adopted and modified from Glance et al, 2002.*

Conclusion

This study highlights that facility-based delivery in Nasarawa State is influenced by multilayered barriers that intersect across economic, cultural, and health-system domains.

Economic constraints remain the most dominant impediment, while socio-cultural norms, patriarchal decision-making, TBA preference, and mistrust of health workers further discourage the uptake of skilled birth attendance.

The findings underscore that improving facility delivery requires:

1. Strengthened male involvement in birth preparedness,
2. Community-driven behaviour change strategies,
3. Improved interpersonal quality of care and respectful maternity care, and
4. Collaborative partnerships between TBAs and the formal health system.

To address these complexities, a context-specific adaptation of the Health Belief Model (HBM) is proposed as a foundation for designing high-impact behavioural interventions.

Only by addressing these interconnected barriers can Nasarawa State achieve significant improvements in maternal and neonatal outcomes.

Policy and Program Recommendations

1. Strengthen Male Engagement Strategies
   - Implement community education programs targeting male heads of households.
   - Introduce couple-focused antenatal counseling sessions.
   - Engage men’s groups, farmers’ associations, and religious institutions in maternal health promotion.
   - Provide male-friendly ANC hours to increase participation.

Evidence shows male involvement improves emergency preparedness and increases facility delivery rates [17, 18].

2. Integrate and Supervise Traditional Birth Attendants (TBAs)
    - Train TBAs on early recognition of danger signs.
    - Establish referral linkages between TBAs and nearest PHCs.
    - Incentivize TBAs for timely referrals rather than direct delivery services.
    - Include TBAs in community surveillance and outreach activities.

Studies show that supervised TBA collaboration significantly increases facility utilization and reduces delays [9–11].

3. Address Transport and Cost Barriers
    - Introduce community emergency transport schemes (motorcycles, community ambulances).
    - Expand free delivery services and reduce informal charges.
    - Provide vouchers or conditional cash transfers for facility delivery.

Transport interventions have been shown to reduce maternal deaths in rural African settings [13].

4. Improve Quality of Care and Reduce Disrespectful Practices
    - Implement respectful maternity care (RMC) training for health workers.
    - Strengthen supervision and feedback mechanisms.
    - Reduce waiting times by reorganizing triage and labour ward flow.
    - Encourage multilingual communication in local languages.

Quality improvements have been directly linked to increased health facility utilization [22–26].

5. Community-Led Behaviour Change Communication (BCC)
    - Engage village heads, religious leaders, women leaders, and TBAs as change advocates.
    - Disseminate narratives and testimonials of safe facility deliveries.
    - Use radio programs, community theatre, and peer educators to challenge harmful norms.

Culturally contextual BCC has proven effective in shifting maternal health behaviours [7, 21].

6. Strengthen the Primary Healthcare (PHC) System
    - Upgrade rural facilities, ensure availability of skilled birth attendants, and equip labour rooms.
    - Improve night-time service availability to reduce reliance on TBAs.
    - Ensure essential drug and supply availability to eliminate hidden costs.

Stronger PHC systems correlate with higher facility delivery rates across Africa [24].

Strengths and Limitations

Strengths

This study employed a rigorous mixed-methods design, allowing for a comprehensive understanding of the socio-cultural and economic barriers influencing facility-based delivery in Nasarawa State. The inclusion of diverse community actors, men, elders, traditional birth attendants, women leaders, and healthcare workers, provided rich, multi-layered insights into decision-making dynamics that are often overlooked in maternal health research. The large quantitative sample of married men strengthened the statistical validity of findings, while qualitative interviews enhanced contextual interpretation and cultural depth. Using the Health Belief Model (HBM) further enabled systematic analysis of behavioural constructs shaping maternal health-seeking patterns.

Limitations

The cross-sectional design limits causal inference, as the study captures perceptions and behaviours at a single point in time. Self-

reported data may also be subject to recall bias or social desirability bias, especially regarding sensitive cultural practices and male involvement. Qualitative findings, though rich, reflect the perspectives of selected participants and may not fully represent all communities in Nasarawa State. Additionally, the study did not include direct observations of childbirth practices, which could have provided further behavioural context.

Ethical Approval

Ethical approval was obtained from the Ethics Review Committee of the Nasarawa State Ministry of Health in accordance with the National Code of Health Research Ethics Committee (NHREC Protocol No:18/06/2017), before commencement of the study. Verbal and written consent were obtained from the study participants. Also, participants were given the exclusive right to opt out of the study at any time. The benefits of the research were clearly explained to the participants. No harm was done to the participants, and their personal information was kept on a password-protected computer to ensure confidentiality. The password was only accessible to the investigators and the data analyst.

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Data Availability

The datasets that were used for this study are available from the corresponding author upon reasonable request.

Author Contributions

Abraham Ajigasokoa Ahmadu: Conceptualization of the study, development of data collection tools, data collection, quantitative and qualitative analysis, drafting and critical revision of the manuscript.

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Conflict of Interest

The author declares that there is no conflict of interest regarding the publication of this manuscript.

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