Kanem J Med Sci 2025; 19(1): 37- 46

ISSN 2006-4772
https://doi.org/10.36020/kjms.2025.1901.004

Original Article

Unveiling the landscape of birth preparedness and complication readiness among IDPs and host communities in Yobe State – a qualitative study

Nuru S. Muhammad,[1] Abdulhakeem A. Olorukooba,[2] Abdullahi Shehu.[3]

[1]Department of Community Medicine, Yobe State University, Damaturu, Yobe, Nigeria, [2]Department of Community Medicine, Ahmadu Bello University, Zaria, Nigeria, [3]Department of Community Medicine, Federal Medical Centre Gusau, Zamfara, Nigeria.

Corresponding Author- Nuru Suleiman Muhammad, Department of Community Medicine, Yobe State University, Damaturu, Yobe, Nigeria, nurusulemuhammad@gmail.com, +2347036323713, ORCID id 0000-0002-0669-9807

Abstract

Background: Background: Worldwide, women continue to die from preventable obstetric complications largely attributed to the three delays. Birth Preparedness and Complication Readiness (BP/CR) is among the important strategies that address the delays. The activities of Boko Haram insurgents have left millions of Internally Displaced Persons (IDPs) devastated. Recently, because of the relative peace, some IDPs have been resettled back to their former place of residence; however, some are still living with host communities in areas with relative peace. Women among IDPs and host communities may face challenges in accessing healthcare services, compounded by factors like poverty, negative attitudes, and insecurity. Studying these barriers allows for targeted interventions to address them. **Objective(s):** Therefore, this study is set to assess the contextual barriers to knowledge, attitude, and practice of BP/CR among women in IDPs and host communities in Bade LGA of Yobe State. **Methodology**: This study adopts a qualitative phenomenological research design, and it is a component of a comprehensive dissertation submitted for the fellowship award in the Faculty of Community Health at the West African College of Physicians. Data was collected from 26th November 2021 to 16th December 2021. A purposive sampling technique was employed to select the respondents for the research. Recording devices, focus group discussion and interview guides were used to collect qualitative data. Data was analysed using NVivo version 11. **Results:** Most of the respondents had a poor understanding but a positive attitude towards BP/CR. Practice of BP/CR was commoner among wealthier members. Barriers to BP/CR included the three delays, poverty, ignorance, and unemployment. **Conclusion:** The study identified poor understanding, positive attitude, and several barriers to BP/CR. Targeted Knowledge Dissemination, Addressing Disparities, and Accessibility were the key recommendations.

Keywords: *Birth preparedness, Complication Readiness, Host, Internally Displaced Persons, Yobe*

Introduction

Despite significant global efforts to improve maternal and newborn health, substantial disparities persist, particularly in developing countries. One critical factor contributing to these disparities is the lack of birth preparedness and complication readiness (BP/CR). BP/CR encompasses a range of actions taken by pregnant women, their families, and communities to ensure a safe and healthy childbirth experience. However, numerous contextual barriers hinder the effective implementation of BP/CR practices, especially in developing countries. [1]

Research suggests that poverty, low educational attainment, limited access to healthcare facilities, and inadequate knowledge about danger signs during pregnancy and childbirth are key barriers to BP/CR in low- and middle-income countries.[2,3] These factors often converge and exacerbate vulnerabilities, disproportionately impacting marginalized communities. For instance, women living in poverty may struggle to afford essential supplies or transportation to healthcare facilities, hindering their ability to prepare for childbirth and access timely care in case of complications.

Cite this article as: Nuru S. Muhammad, Abdulhakeem A. Olorukooba, Abdullahi Shehu. Unveiling the landscape of birth preparedness and complication readiness among IDPs and host communities in Yobe State – a qualitative study. Kanem J Med Sci 2025; 19(1): 37-46.

Received: 14th March 2025 **Accepted: 1st June 2025** **Published: 30th June 2025**

Furthermore, sociocultural norms and practices play a significant role in shaping BP/CR behaviours. Traditional beliefs and gender roles can influence decision-making around seeking timely care, utilizing skilled birth attendants, and preparing for potential complications.[4] Addressing these deeply ingrained cultural factors requires culturally sensitive approaches that promote informed choices and empower women within their specific contexts.

Understanding these contextual barriers, their complex interplay, and their disproportionate impact on women among IDPs and host communities in places affected by insurgency is important for designing effective interventions tailored to address the specific needs and challenges faced by the women. By addressing these barriers, we can work towards creating an environment that enables all women to have a safe and healthy childbirth experience, ultimately contributing to improved maternal and newborn health outcomes not only in the IDPs and host communities but also in Yobe State, Nigeria, and the world at large.

Materials and methods

Study design

This study is a qualitative component of a comprehensive dissertation submitted for the fellowship award in the Faculty of Community Health at the West African College of Physicians. The main dissertation employed a cross-sectional comparative design utilizing a mixed-methods (quantitative and qualitative) approach. This study reports the qualitative aspect, which was conducted using a phenomenological qualitative design.

Setting

The data for the overall study were collected in Bade, Potiskum, and Nguru Local Government Areas of Yobe State, Northeastern Nigeria. But the qualitative component was conducted in the Bade local government. Yobe state has 17 Local Government Areas (LGAs), and the Boko Haram insurgency is still ongoing in Yobe State. As of 21st February 2021, there were 156,437 IDPs and 198,192 returnees in Yobe State, with women constituting 23% and 22% respectively.

Study participants

Participants for the study included pregnant women and women who delivered within two years before the survey in both IDP and host communities, husbands/partners of the women, traditional birth attendants, religious/opinion leaders, and heads of facilities.

Sample size and sampling technique

The participants were purposively selected from Bade Local Government Area and grouped as follows.

i) Women alone Focus Group Discussion (FGD) and husbands/partners alone FGD, each consisting of 8 homogenous participants from the IDPs and hosts. A total of four FGDs (two each among IDPs and host participants) were formed. Thus, 32 participants were involved in the FGDs

ii). A total of four Key Informant Interviews (KIIs) involving a religious leader, an IDP leader, a traditional birth attendant (TBA), and the head of a PHC were conducted. Thus, 4 participants were involved in the KIIs

No participant refused to participate nor dropped out of the study.

Data collection tools

FGD and KIIs guides were developed to collect qualitative data from the respondents in face-to-face discussions and interviews. The guides generally consisted of an introduction on the purpose and objectives of the study and ground rules. However, the contents of the FGDs and key informant interviews were modified based on who the respondent or interviewee was, because certain information on BP/CR depended on the respondent's or interviewee's gender, position, and level of expertise. The guides were translated into Hausa and then back translated into English by experts from the department of language and linguistic of Ahmadu Bello University, Zaria. The back-translated versions were compared with the original English version to ensure the validity of the translation.

Methods of data collection

The premises of the palace of the district head of Katuzu ward were used for FGD among the host, while Garin Lamido Primary School was used for conducting the FGD for IDPs. KIIs were done in the interviewee's palaces, offices, and houses. Discussion sessions were conducted by a moderator. Participants' voices were recorded using a handheld digital recorder by the moderator. Field notes were taken during the interviews by the note taker. After each discussion or interview contents of the field note were discussed with participants for corrections. Each FGD lasted an average of 1 hour, while the KII lasted an average of 45 minutes. Non-participants were not allowed to stay beside the participants.

Data analysis

Recordings from FGDs and KIIs were transcribed and translated verbatim into the English language. The transcriptions were compared with the notes

taken during the conduct of the study for completeness. The data was imported into NVIVO software version 11. Data cleaning for mechanical and other errors was done. All the texts were read carefully, and relevant statements were coded by the corresponding author using the software nodes and sub-nodes. Nodes and sub-nodes were grouped according to themes derived from the data relating to the components of BP/CR and other emerging contextual issues. Data for the FGDs and KIIs were presented separately in narrative prose with participant quotations identified by their unique numbers.

Ethical Consideration

Ethical approval was sought and obtained from the Health Research Ethics and Scientific Committee of Ahmadu Bello University Teaching Hospital, Zaria. Permission to conduct the study was sought from the Bade Local Government Authority. Verbal informed consent was sought from the respondents. The study's purpose was explained to them. Clear and concise information outlining the research methodology, potential risks like emotional discomfort while sharing personal stories, and the right to withdraw at any time without consequence were discussed. Confidentiality was emphasized, and how pseudonyms would replace real names in all transcripts and publications was clearly explained. Finally, after the research concluded, a summary of the findings was shared with participants, offering them the opportunity to ask questions and fostering a sense of transparency and respect throughout the research journey.

Results

Focus group discussion result

A total of four FGDs, two each among IDPs and hosts, were conducted, and consisted of women and their husbands/partners.

Knowledge of birth preparedness and complication readiness

Most of the respondents had a poor understanding of what birth preparedness and complication readiness were. However, some of them mentioned some of the components. They commonly mentioned saving money for delivery.

"*Birth preparedness? Are you talking about clothes? There are three ways to prepare for birth. One is buying a ram or animal that will be slaughtered on the day of the ceremony. Two keeping money for buying drugs during delivery…...*" (Host FGDM003)

"*For birth preparedness, one can buy clothes for the mother and baby and then decide what to eat after the child is delivered. Some people buy razors. Some women get razors and other things they need when they go to the hospital for delivery, so they don't need to buy anything*." (Host FGDM006)

"*Birth preparedness means saving money for delivery. Well! Nowadays, it is very difficult to save money for delivery. We are struggling to decide what to eat. But if you are lucky and get a good husband who takes care of you, even if he doesn't save the money, he will go out to look for it elsewhere. What women usually do for birth preparedness is buying clothes, razor, and so on. It will be difficult to see a woman who saves money for delivery*." (Host FGDF002)

Also, these were the comments of some IDP respondents about their understanding of BP/CR.

"*Birth preparedness and complication readiness mean saving money for delivery. First, money must be kept for delivery, then a razor should be bought. Then, food will be bought for the naming ceremony. In addition to what has been said earlier, when your woman is pregnant, apart from the money you will be save for an emergency, you will have to buy clothes for the new baby. These clothes will be used to wrap the baby*." (IDP FGDM003)

"*It becomes compulsory to first save money, then secondly buy clothes for the newborn baby.* (IDP FGDF001)

Attitude towards birth preparedness and complications readiness

Generally, all the respondents talked positively about birth preparedness and complication readiness. They believed a family should get prepared whenever a woman in the family got pregnant. Most of them said that BP/CR was done to prevent problems from arising.

"*I think families do prepare for birth because of unforeseen circumstances. But they don't usually keep money; rather, they can sell their assets when the need arises. Keeping money is very difficult nowadays*." (HOST FGDF001)

"*This is done to prevent problems from arising. That is why it is good to prepare for birth. It is good. You know, when it comes to the issue of problems during delivery, God forbid, it is good to prepare well*." (IDP FGDF006)

Practice of birth preparedness and complications readiness

Generally, respondents in both the IDPs and the hosts practiced some aspect of birth preparedness and complications readiness. Both groups admitted to having high proportions of antenatal care attendees. Although most of them admitted to

saving money in cash or in kind for delivery, many agreed that the practice was commoner among wealthier members of their community.

"*No* out *of 10, 6 go for antenatal care. Please tell me, each one of us has a wife. Can any of you tell me that he doesn't allow his wife to go for antenatal care? Almost everybody you see here allows their wife to go for antenatal care. That is why I said out of 10, about 6 go for antenatal care. You know, what prevents people from going for antenatal care is lack of money. Almost everything there is not for free*." (Host FGDM001)

"*Yes, to be honest with you, out of 10, about 5 will save money for delivery, especially the wealthier ones among us. But when it comes to this issue, women are better than men. You also must know that people hardly save money; they will rather save properties or animals. This is because keeping money is difficult; one can easily spend it on other issues*." (Host FGDF001)

"*Help and support are gotten from neighbours. Our husbands can beg their neighbours* to take us to the hospital. *We also save money for delivery. Women are also trying in this regard. Some of them save the money for delivery themselves*." (IDP FGDF003)

However, in terms of identification of place of delivery, attendants at birth and institutional delivery, the hosts were better than the IDPs. Most deliveries among the IDPs took place at home, either unsupervised or attended to by a traditional birth attendant.

"*Out of 10, 7 go to the hospital for delivery in this community*." (Host FGDM008)

"*If you go to the maternity, you will see a lot of women roaming around trying to access delivery services*." (Host FGDM001)

"*Yes, some families do that. A woman may say if I want to deliver, please take me to nurse A or B, or a health care worker A or B.' Out of 10, you will get 4 that do that."* (Host FGDM004)

"*Yes, we do have such families. Some women will tell you take me to nurse A or B when we are in labour*." (Host FGDM004)

"Out of 10, 8 deliver at home." (IDP FGDM003)

"No out of 10, 9 delivers at home." (IDP FGDM006)

"Out of 10, only 1 goes to the hospital for delivery." (IDP FGDM001)

"*I have more than eleven children, and none of them was delivered in the hospital. My wife has never delivered in the hospital*." (IDP FGDM007)

The practice of saving blood was poor among both the host and the IDPs. Although they admitted to identifying a potential blood donor, all agreed that saving blood was very rare among them.

"*If you talk about potential donors, we have many of them. If a husband knows his wife is the type that normally requires blood, he will find a potential blood donor before the need arises. But when it comes to saving blood, only 1 out of 10 do that*." (IDP FGDF005)

"*Out of 10, you can't find up to 2 that save blood. But a lot of us save money for delivery.* (IDP FGDM001)

"*If there is no blood, we have potential donors. When there is no blood, all I need to do is pick up my phone and call my brothers*." (IDP FGDM007)

Factors inhibiting the practice of birth preparedness and complications readiness

There were many barriers to BP/CR identified during discussions with both the IDPs and host respondents. Some of these barriers included a delay in deciding on going to the hospital, a lack of community or stable emergency transport scheme, which exacerbated the delay in reaching health care facilities, a delay in hospitals before accessing care, and poverty.

"*Yes, there is a delay in decision-making before going to the hospital. Most families find it difficult to arrive at the necessary conclusions on time. That might lead to serious consequences, including death*." (Host FGDM006)

"*Yes, there is a problem that has to do with the attitude of health care workers. They don't treat our women fairly.* (HOST FGDM003)

"*There is the problem of long waiting time. If your wife goes for antenatal care in the morning, she will not come back until the evening*." (Host FGDM001)

"*Me too. My wife usually spends up to five o'clock in the evening before she comes back."* (Host FGDM005)

"*Some of the causes are lack of someone to back you from the health workers. There is also lack of money. If you have money, you will access care very easily. If you don't bribe your way, you will just die there. You will meet more than 200 people waiting to access service, and if you don't have support from the providers, you won't get the care on time*." (Host FGDM001)

Although the delay in getting to the healthcare facilities affected both groups, they seemed to be less affected by it than the other two delays mentioned above.

"*…people are trying in this regard. Even at night, some tri cyclists can help you when you need their help*. (Host FGDM001)

"*It is not that our people don't want to go to the hospital, but…ok, I think we don't usually have a problem of transport. During the day, there are tricycles, while during the night there are taxis*." (IDP FGDM001)

Poverty is also an important barrier in birth

preparedness and complications readiness, especially among the IDPs.

"*I would like to say something. One of the greatest problems among us, the IDPs, is poverty. A lot of us don't have jobs. The Boko Haram calamity that has befallen us is still taking a toll on us. Where 1000 people are supposed to farm, being occupied by 3000 people. There is intense competition. We have a lot of poor women*." (IDP FGDM003)

Key informant interview result

A total of four key informant interviews were conducted involving the facility head, host religious leader, IDP leader, and TBA.

Knowledge of birth preparedness and complications readiness

There was generally poor knowledge of BP/CR among all the KII respondents. Most of them, when asked about it, talked in terms of saving money for the birth ceremony and delivery. Some of them considered saving blood for delivery as akin to calling for evil omens upon oneself. Below are some of their comments.

"*I don't really understand it fully, but it's something that has to do with saving money for delivery. Most indigenous women here don't do it*, the facility head.

"*What I know about it is that it has to do with buying clothes and keeping them for the unborn baby, saving food for the naming ceremony, and saving money for delivery. This is what we do here*." (The IDP leader)

"*In preparation for birth, some women would buy razor blades and keep them. Husbands usually buy fuel for cooking food and animals that will be slaughtered during the ceremony. It is also good to save money for emergencies*." (The Religious Leader)

When asked about saving blood for delivery, he had this to say.

"*No, you don't suppose to keep blood. Keeping blood is akin to calling for calamity. No reason to keep any blood. Will you like to call for a calamity to your wife? If you keep blood, you call for calamity to your wife*." (The Religious Leader)

"*This entails saving toiletries, clothes, and saving money. Most pregnant women start preparing for birth around seven months of gestation. Some do that while some don't do it*." (The TBA)

"*I don't really understand it fully, but it's something that has to do with saving money for delivery. Most indigenous women here don't do it.*" (The head of PHC)

Practice of birth preparedness and complications readiness

According to what the participants revealed, the practice of BP/CR among both the IDPs and the host was poor, but it was much poorer among the IDPs. Most of them mentioned saving money for delivery, which they said was common among the affluent members of the host communities. They also mentioned high attendance of antenatal care, especially among the hosts.

"*To be honest with you, women among the natives of Yobe State are coming for antennal. Out of 10, 7 come for antenatal care. But for the IDP, you know, they are still trying to integrate with us. Most of them don't attend antenatal care*." (The Head of PHC)

Antenatal care attendance among the IDPs is poor. This happens because of ignorance of the importance of antenatal care. I think out of 10, only 4 attend antenatal care because of ignorance and poverty." (The TBA)

"*We encourage our people…for example, when NGOs gave us #12000, we used to encourage our people to save for rainy days. Emergencies are unforeseen; therefore, it is good to save. We also encourage our women to engage in local business and jobs because these help in times of emergency*." (The IDP Leader)

"*We normally encourage them to go for antenatal. We also tell their husbands about the importance of saving money for delivery. Here in Gashua, we have potential blood donors who will be ready at any time to donate blood if the need arises. We don't keep blood. If you do that, is as if you are calling for your wife's death. Here is not Europe*." (The Religious Leader)

Factors inhibiting the practice of birth preparedness and complications readiness

Some of the barriers to birth preparedness and complications readiness identified during the key informant interviews included the three delays (delay in making a decision, delay in arriving at the hospital, delay in accessing care at the hospital), poverty, ignorance, and unemployment. For the three delays, participants pointed out that the delay in making a decision at home before going to the health care facilities was common among both the IDPs and the hosts. However, they also revealed that getting standing permission to go and seek care, even in the absence of their husbands among the IDPs and the hosts, was not difficult; what usually caused delay at home was the reluctance of some women to go to the hospital due to ignorance. Poverty, especially among the IDPs, had been highlighted by most of the participants. These are some of their comments.

"*Most of what serves as barriers to birth preparedness and complication readiness among our people are lack of jobs. When we were in our former places, a lot of people had*

jobs, but this is not the case now. A lot of people have lost their properties. What to feed themselves with is a problem that talks less of saving for birth. These are the barriers." (The IDP leader)

"*Poverty is an important barrier. Nobody would like to see their wife in pain or suffering if they have the means to take care of her*. (The religious leader)

"*I think some of the barriers are poverty and some other challenges the IDPs are facing. Some husbands provide all that is needed at the appropriate time, while some don't do that on time. Husbands behave differently. Sometimes lack of preparation for birth is due to a disobedient wife.* (The TBA)

"*I think one of the important barriers is poverty. Ignorance of the importance of preparing for birth among women here is also a barrier*" (The Head of PHC)

Discussion

This study highlights the complex interplay between knowledge, attitude, practices, and barriers surrounding birth preparedness and complication readiness (BP/CR) among internally displaced persons (IDPs) and host communities in Yobe State. The study revealed poor knowledge of BP/CR among both IDPs and hosts. Most of the participants only mentioned saving money for delivery. This aligns with findings from a study conducted in Nepal, which reported that knowledge about danger signs and emergency preparedness was generally low.[5] This finding of poor knowledge regarding BP/CR among IDPs and host communities reflects a critical vulnerability that can significantly elevate their risk of preventable maternal and neonatal mortality. It can increase the risk of late recognition of obstetric danger signs, slow decision-making in emergencies, and hinder prompt access to essential, life-saving maternal care. Weak BPCR knowledge also reflects underlying gaps in health education and social vulnerability created by the Boko haram Insurgency. Therefore, this finding necessitates a culturally adapted health education alongside standard clinical service provision.

However, the observation that participants possess a positive attitude toward BP/CR, despite their demonstrated gaps in knowledge, serves as an important programmatic leverage for future interventions. Consequently, this psychological receptivity implies that the community is fertile ground for tailored health education, as the "willingness to act" already exists, awaiting only the "knowledge of how to act." It shifts the focus of potential interventions from persuasion to instruction, allowing health promoters to bypass the arduous stage of attitude restructuring and move directly to capacity building. This finding also highlights the potential for community-led advocacy, where women with positive attitudes can be recruited as peer educators to further disseminate accurate information within their social networks. Furthermore, the alignment of attitude with potential practice suggests that if the information gap is bridged, the translation into improved health-seeking behaviours could be rapid and substantial. Policymakers should interpret this as a green light to invest in low-cost, high-impact educational strategies, such as community dialogues and visual aid tools, knowing that the uptake is likely to be high. Ultimately, this positive attitude acts as a foundational asset, reducing the resources needed for community mobilization and increasing the likelihood of sustainable adoption of BP/CR practices. Therefore, the immediate programmatic priority must be to capitalize on this goodwill by deploying culturally tailored curricula that transform this passive positive attitude into active, life-saving preparedness measures.

Attendance at antenatal care (ANC) emerged as a common practice among both IDPs and hosts in this study. This finding contradicts reports from some humanitarian settings, such as research in Somalia, which documented low ANC attendance due to factors like insecurity and limited access to healthcare facilities.[6] The higher ANC attendance observed in the current study might be attributed to specific contextual factors or differences in healthcare accessibility in Yobe State compared to other settings. However, the finding that Antenatal Care (ANC) attendance is high among both IDPs and hosts presents a complex paradox when viewed alongside the poor knowledge levels reported in this study. The fact that women are physically present at health facilities yet remain poorly knowledgeable about critical components of BP/CR implies a failure in the quality of information, education, and communication (IEC) provided during these visits. It suggests that ANC consultations may be overly focused on clinical procedures, such as physical examinations and supplement distribution, at the expense of comprehensive health education counselling. This disconnect indicates that mere access to facilities is insufficient to guarantee health literacy; the content and pedagogical approach of the ANC sessions must be rigorously audited and improved. It raises questions about the workload of healthcare providers, who may be too overwhelmed

to dedicate sufficient time to patient education or perhaps lack the training to communicate complex obstetric concepts effectively. Furthermore, this finding challenges the assumption that bringing women into the clinic is the ultimate hurdle; rather, it highlights that the clinical encounter itself must be optimized to serve as a meaningful educational touchpoint. Therefore, interventions should not solely focus on demand generation, as demand appears adequate, but rather on strengthening the "process quality" of ANC services to ensure every visit reinforces birth preparedness. If this gap between attendance and knowledge is not addressed, Yobe State risks maintaining high coverage rates without achieving the corresponding reduction in maternal mortality that ANC is intended to deliver.

A significant disparity was observed between IDPs and hosts regarding the place of delivery location and the attendant at the delivery. The study found a higher proportion of home deliveries with traditional birth attendants among IDPs than hosts. This finding aligns with research in Ethiopia, which identified similar disparities between displaced and settled populations, highlighting the vulnerability of IDPs regarding access to skilled care.[7] Despite the parity in ANC attendance, the significant disparity regarding delivery location and skilled birth attendance (SBA) between IDPs and host communities unmasks a deep inequity in the continuum of care. The data reveal that while IDPs engage with the health system for antenatal checks, they resort to home births with Traditional Birth Attendants (TBAs) for the critical moment of delivery, whereas hosts are more likely to utilize institutional delivery. This alignment with findings from Ethiopia underscores the persistent vulnerability of displaced populations, suggesting that structural barriers such as the cost of delivery, distance to facilities at night, or perceived discrimination weigh far more heavily on IDPs than on their host counterparts. It implies that for an IDP woman, the decision to deliver at home is likely not a preference but a necessity born out of socioeconomic marginalization and the disruption of social safety nets. This reliance on TBAs, who may lack the skills to manage obstetric emergencies like haemorrhage or obstructed labour, may place displaced women at a disproportionately higher risk of maternal mortality. The finding highlights a fragmentation of the referral pathway, where the trust or capacity built during ANC does not carry over to the delivery room for the displaced population. It necessitates a targeted investigation into the specific "tipping points" that deter an IDP woman from seeking skilled care when labour begins, distinguishing her experience from that of the host community. Humanitarian response plans must, therefore, go beyond general support and implement specific financial protection mechanisms, such as delivery vouchers or emergency transport schemes, specifically for the displaced. Without addressing this divergence, Yobe State and indeed the Northeast Nigeria face a two-tiered health outcome scenario where host communities progress toward safe motherhood while IDPs remain trapped in a cycle of high-risk obstetric practices.

The study identified several barriers to BP/CR, including delays in decision-making, lack of transportation, poverty, and limited knowledge. These findings are in line with studies conducted in humanitarian settings regarding barriers hindering effective BP/CR practices.[4,8] These identified barriers serve as the root causes of the "Three Delays" model in this setting. The consistency of the findings with broader humanitarian literature illustrates that knowledge and attitude alone are insufficient to secure safe delivery when the enabling environment is fundamentally fractured. The prominence of poverty as a barrier implies that even a woman who is fully prepared mentally and recognizes danger signs may be rendered helpless by the inability to pay for a vehicle or service fees. Similarly, transportation challenges in a conflict-affected region are not merely logistical inconveniences but life-threatening adventures, often exacerbated by curfews, checkpoints, or poor road infrastructure. The "delay in decision-making" is likely a symptom of these structural issues; families hesitate not because they do not care, but because they fear the financial ruin or logistical futility of attempting to reach a hospital. This validation of the "Three Delays" framework in the local context of this research confirms that health sector interventions alone cannot solve the maternal mortality crisis; a multi-sectoral approach involving transport unions, local governance, and economic empowerment programs is essential. It also suggests that the "complication readiness" aspect of BP/CR is failing specifically because the community lacks the collective resources to mobilize in an emergency. Consequently, the implication is that educational

interventions must be paired with structural support, such as community emergency funds or standby transport arrangements, to be truly effective. Unless these tangible barriers are dismantled, improvement in knowledge of BP/CR coupled with positive attitudes towards it will remain abstract concepts that cannot be translated into practice during the critical moments of an obstetric emergency.

Conclusion

This study highlights an important dissonance evident in the maternal health landscape of Yobe State, where, despite the high antenatal care attendance and positive attitude of women toward birth preparedness, both from the displaced and host communities, such encouraging behaviours have translated into neither adequate obstetric knowledge nor skilled delivery uptake among the IDPs. As the findings indicate, the current health system is successfully creating demand for prenatal services but is letting slip the equally crucial opportunity to translate these visits into significant educational encounters that enable the women to recognize danger signs and plan for emergencies. The sharp contrast in the delivery locations also sends a signal that IDPs remain structurally marginalised and are forced by poverty and logistics barriers to continue relying on traditional birth attendants despite engaging the formal health sector. Thus, reducing maternal mortality in this conflict-affected setting requires more than maintaining service coverage alone; it calls for qualitative shifts toward comprehensive, culturally adapted health education within ANC clinics, targeting socioeconomic interventions to break down the structural financial and transportation barriers that currently prevent links between preparation and survival.

Recommendations

Based on the specific findings of this study, the following recommendations are made to bridge the gap between positive attitudes, ANC attendance, and actual birth preparedness practices among IDPs and host communities:

1. Re-structuring Antenatal Care (ANC) as an Educational Hub to address the "High Attendance, Low Knowledge" Paradox

Since ANC attendance is high but knowledge remains low, the State Ministry of Health and humanitarian partners must shift focus from mere coverage to the quality of counselling. ANC sessions should be restructured to include mandatory, participatory health education sessions using visual aids that clearly depict obstetric danger signs. Health workers must be trained to use "teach-back" methods to ensure women truly understand the information before leaving the facility, transforming every clinical visit into a learning opportunity.

2. Targeted Socioeconomic Support for IDP Deliveries Addressing the "Delivery Location Disparity."

To close the gap between IDPs (who mostly deliver at home) and hosts (who use facilities), interventions must lower the barrier to entry for skilled delivery. This should include the implementation of conditional cash transfers (CCTs) or "Mama Kits" (containing delivery essentials) specifically for displaced women who deliver in health facilities. Additionally, a voucher system could be piloted to subsidize the costs of transportation and service fees for IDPs, ensuring that their engagement with the health system does not end at antenatal care.

3. Community-Based Emergency Readiness Schemes Overcoming the "Transportation and Poverty" Barriers

CHEWs should facilitate the creation of Community Emergency Transport Systems to address the logistics and financial delays found in the study. It includes advanced negotiations of rates with local transport unions or volunteer drivers for the transportation of labouring women to facilities, especially at night. The Yobe State Emergency Medical Ambulance Services Agency (YEMABUS) should play a central coordinating role by linking community-level transport initiatives with formal ambulance networks to ensure timely referrals and emergency response. This collaboration can enhance coverage in remote or insecure areas where private transport may be unavailable. Also, promotion of community-managed saving schemes—Adashe or Ajo—for maternal emergencies can help build a financial cushion for families during complications.

4. Leveraging Positive Attitudes through Peer Education Addressing the "Positive Attitude vs. Low Knowledge" Gap

Capitalizing on the high positive attitude reported, a Peer-to-Peer Advocacy Program should be launched. Women who have successfully utilized skilled birth attendants can be recruited as "Safe Motherhood Champions." Because the community is already receptive (positive attitude), these champions can effectively conduct house-to-house sensitization to teach their neighbours about BP/CR

components without facing deep cultural resistance, thereby demystifying the process of preparing for birth.

5. Male Engagement Strategies Addressing "Delays in Decision-Making."

Since delays in decision-making were identified as a key barrier, and financial power often rests with men in these communities, education must extend beyond the women. Advocacy programs targeting husbands and community leaders are essential. These initiatives should frame birth preparedness not as a medical issue but as a family responsibility, encouraging men to actively participate in saving money and arranging transport well before the due date.

Limitations

This study, while providing valuable insights into BP/CR practices in Yobe State, has some limitations that need to be considered when interpreting its findings and generalizing them to other contexts: 1.

1. The findings may not be generalizable to other regions or countries facing similar humanitarian situations due to the potential influence of specific contextual factors unique to Yobe State.
2. Because it is cross-sectional by design, the study does not allow for establishing causal relationships between identified factors and BP/CR practices. It only captures a snapshot of the situation at a specific point in time.
3. The study relies on self-reported information from participants, which may be susceptible to recall bias or social desirability bias.

These limitations highlight the need for further research employing longitudinal approaches to establish causal relationships and gain deeper insights into the complexities surrounding BP/CR practices in the humanitarian settings of Yobe State. Additionally, future studies should aim to address the identified gaps in knowledge and explore specific aspects in greater detail to inform the development of more comprehensive and effective interventions. 4.

Authors Contributions:

Nuru Suleiman Muhammad- Conceptualization, data curation, Formal Analysis, Investigation, Project administration, Supervision, Validation, Writing the draft.

Abdulhakeem Abayomi Olorukooba- Data Curation, Writing the Draft, Review, and validation, Abdullahi Shehu- Writing the Draft, Review, and Validation

Conflict of Interest:

The authors declare that there is no conflict of interest.

Funding:

The authors did not receive any external funding for the study.

Acknowledgement

I would like to express my gratitude to professors and consultants in the Department of Community Medicine, Ahmadu Bello University (ABU), who took their time to look over this work and made contributions. The support and encouragement I have received from the Head of Department, Dr Muawiyyah Babale Sufiyan are greatly appreciated. Thanks to the other members of the Community Medicine Department, ABU.

References

Iliyasu Z, Abubakar I, Galadanci H, Aliyu MH. Birth preparedness, complication readiness, and fathers' participation in maternity care in a northern Nigerian community. Afr J Reprod Health 2010; 14: 21-32. https://www.ajrh.info/index.php/ajrh/article/view/470.

Kabakyenga JK, Östergren PO, Turyakira E, Pettersson KO. Influence of Birth Preparedness, Decision-Making on Location of Birth and Assistance by Skilled Birth Attendants among Women in South-Western Uganda. PLoS One. 2012 Apr 27;7(4): e35747. https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0035747.

Ahmed S, Creanga AA, Gillespie DG, Tsui AO. Economic Status, Education, and Empowerment: Implications for Maternal Health Service Utilization in Developing Countries. PLoS One. 2010 Jun 23;5(6): e11190. https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0011190.

Ganle JK, Parker M, Fitzpatrick R, Otupiri E. A qualitative study of health system barriers to accessibility and utilization of maternal and newborn healthcare services in Ghana after user-fee abolition. BMC Pregnancy Childbirth. 2014 Dec 21;14(1):425. https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-014-0425-8#:~:text=We%20found%20that%20in%20addition,care%20quality%2C%20lack%20of%20privacy.

5. Kaphle H, Kuwar L, Acharya A. Birth preparedness and complication readiness among women in Lekhnath Municipality, Nepal. Global Journal of Medicine and Public Health. 2015;4(3). http://eprints.abuad.edu.ng/623/1/30095-Article%20Text-56451-1-10-20190603.pdf.
6. Mohamed AA, Bocher T, Magan M, Omar A, Mutai O, Mohamoud SA, et al. Experiences from the Field: A Qualitative Study Exploring Barriers to Maternal and Child Health Service Utilization in IDP Settings in Somalia. Int J Womens Health. 2021 Nov; Volume 13:1147–60. https://www.dovepress.com/experiences-from-the-field-a-qualitative-study-exploring-barriers-to-m-peer-reviewed-fulltext-article-IJWH.
7. Gebre M, Gebremariam A, Abebe TA. Birth Preparedness and Complication Readiness among Pregnant Women in Duguna Fango District, Wolayta Zone, Ethiopia. PLoS One. 2015 Sep 17;10(9): e0137570. https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0137570.
8. Obionu IM, Ajuba M, Aguwa EN. Preparation for birth and complication readiness: rural-urban disparities among pregnant women in communities in Enugu State, Nigeria. Pan African Medical Journal. 2022;42. https://coder-coder.com/responsive/?utm_source=youtube&utm_campaign=learn+webdev&utm_medium=content

.