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Maternal Health Information Access and Utilization among Pregnant Women in Rural Communities of Jalingo, Taraba State, Nigeria

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Abstract

This study aimed to investigate how pregnant women in rural communities in Jalingo, Taraba State, access and utilise maternal health information, as well as the challenges they encounter in this process. Drawing from the health belief model, a qualitative approach was employed, involving in-depth interviews with 25 participants. The data collected were thematically analysed, and the findings revealed that pregnant women primarily access maternal health information from hospitals and clinics, gaining knowledge on childbirth preparation, nutrition, exercise, and pregnancy risks. However, they face challenges including overcrowded hospitals, poor staff attitudes, language barriers, and transportation issues. The study recommends that the government should improve its infrastructure and services in public hospitals and rural clinics to accommodate the large number of women seeking maternal health information and services, implement language interpretation services, utilise diverse information dissemination channels, establish mobile clinics to take maternal health services into rural communities, foster community awareness, and support networks for maternal health issues.

Keywords: Access, utilization, Maternal, Health, Information, Pregnant, Women

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INTRODUCTION

Maternal mortality continues to be a critical public health challenge worldwide, despite extensive global efforts to reduce its incidence. The issue holds particular prominence within the framework of Sustainable Development Goal 3, underscoring the need for substantial improvements in maternal health outcomes globally (World Health Organisation, 2023). Central to these efforts is Nigeria, a country with a population exceeding 200 million grappling with alarming maternal and child health indicators. Nigeria reports an under-five mortality rate of 120 deaths per 1,000 live births and a staggering maternal mortality rate (MMR) of 814 deaths per 100,000 live births (UNICEF, 2023). Annually, approximately 50,000 Nigerian women lose their lives due to pregnancy-related causes, contributing significantly to global maternal mortality statistics.

Maternal health stands as a cornerstone of public health, intricately woven into the broader fabric of sustainable development and community well-being (Onwujekwe *et al.*, 2019). Effective maternal health not only protects mothers' lives, but also ensures the health and prosperity of future generations. Despite ongoing initiatives and interventions, progress in reducing maternal mortality remains marginal in many regions, including Nigeria. More specifically, in rural areas where health care facilities are in dire need with the absence of clinics and maternity care, and where they do exist, major equipment and professionals are lacking due to poor funding and harsh working conditions that have bedevilled the health sector, among other factors.

Addressing the challenge of growing cases of materiality mortality necessitates not only medical interventions but also robust communication and communication strategies. Effective communication raises awareness about the risks, prevention, and treatment of any outbreak or health issue. Additionally, communication plays a plays a significant role in promoting health issues in that it derives policy or practice changes (Ezeoke, Ezeaka, & Gloria, 2023). According to Thassri *et al.* (2000), effective utilisation of maternal healthcare services is associated with access to maternal health information. Evidence from research (e.g., Ramanadhan & Viswanath, 2006) shows that the decision to utilise healthcare services is influenced by factors such as the sources of information used to obtain such information. Therefore, communication can improve access to essential maternal health information in rural areas. Access to maternal health information can be critical in providing rural women with the knowledge they need to make informed decisions about

their health and that of their children. Therefore, this study focuses on understanding how pregnant women receiving antenatal care access and utilise maternal health information. By exploring communication channels, utilisation patterns, and barriers encountered, the research aims to identify opportunities for improving maternal health outcomes through enhanced information dissemination strategies.

Research Questions

1. What are the primary communication channels used by pregnant women to access maternal health information in rural communities in Jalingo, Taraba State?
2. What are the patterns of maternal health information utilization among pregnant women attending antenatal care services in rural communities in Jalingo, Taraba State?
3. What are the barriers and challenges faced by pregnant women when accessing and utilizing maternal health information in rural communities in Jalingo, Taraba State?

Review of Empirical Literature

The reviewed empirical studies provide valuable insights into the access and use of maternal health information across diverse contexts, highlighting both success and persistence. Obasola and Mabawonku (2017) focused on ICT use among Nigerian women for accessing maternal and child health (MCH) information, revealing a significant reliance on mobile phones, radio, and television. adio, and television. Despite these channels' popularity, issues such as unreliable power supply and high costs hindered effective ICT use. However, the study primarily targeted a broader demographic of registered mothers, employing convenience sampling, which may not fully capture the specific needs and experiences of pregnant women receiving antenatal care.

Similarly, Igbinoba *et al.* (2020) explored maternal health awareness among female residents, emphasising the role of mass media in disseminating health information. Their findings underscored a notable correlation between mass media exposure and maternal health awareness. Yet, the study's limitation lies in its failure to specifically focus on pregnant women in rural communities. Radoff, Levi, and Thompson (2013) and Heri, Mselle, and Malqvist (2023) examined educational interventions and communication dynamics in maternal health, respectively, albeit in different geographical settings. Radoff *et al.*'s study in Nicaragua demonstrated the efficacy of radio-education interventions in

enhancing knowledge of pregnancy danger signs, suggesting potential strategies for improving maternal health literacy through targeted educational efforts. In contrast, Heri et al.'s study in Tanzania highlighted challenges in the delivery of comprehensive antenatal care information due to staffing constraints and similarities in communication barriers despite distinct contexts.

In another study, Rahman *et al.* (2016) explored community perceptions of behaviour change communication (BCC) interventions in rural Bangladesh, focusing on interpersonal communication and entertainment education. Their findings underscored the importance of culturally sensitive messaging and interactive communication methods in promoting maternal and child health. However, like other studies, its applicability to the Nigerian context, particularly within rural settings, remains unclear. Kassim and Katunzi-Mollel (2017) examined the sources of information used by women in rural Tanzania. The study found that women used different sources of information to satisfy their maternal health information needs, with the majority of the women preferring to use professional healthcare workers; however, they also received most of the information from informal sources such as community healthcare workers (CHWs), traditional birth attendants (TBAs), and their immediate family members.

The existing literature on maternal health information access and utilisation among women in diverse contexts provides valuable insights, yet significant gaps remain. Most studies either lack geographical significance in Nigeria or fail to focus specifically on rural community settings. This limits the findings' applicability to understanding Nigerian women's unique challenges and needs when accessing maternal health information. Furthermore, since the majority of the studies have explored the subject using a quantitative research approach, there is a need for qualitative methods to comprehensively assess information access patterns and barriers. Addressing these gaps through targeted research could enhance the development of culturally sensitive and effective communication strategies to improve maternal health outcomes in Nigeria.

Theoretical framework

The Health Belief Model (HBM) is a foundational framework for understanding health behaviours, particularly preventive health actions and healthcare utilisation (Rosenstock, 1974). Developed in response to the low uptake of tuberculosis screening programmes in the 1950s, the HBM elucidates how individual perceptions and beliefs influence health-

related decisions (Parwati *et al.,* 21). Initially focused on disease prevention, the model has evolved to encompass responses to symptoms and adherence to medical treatments (Becker, 1974; Strecher & Rosenstock, 1997; Harrison *et al*., 1992). Its components—perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy—explore how individuals assess their susceptibility to health conditions, perceive the severity of potential outcomes, weigh the benefits of preventive actions, navigate barriers to health behaviours, respond to triggers for action, and assess their confidence in executing health behaviours (Carpenter, 2010; Janz & Becker, 1984; Janz et al., 2002). While influential, the HBM has been critiqued for its overemphasis on rational decision-making, neglecting emotional and social influences (Glanz *et al*., 2008). Furthermore, its focus on individual perceptions may overshadow broader environmental and socioeconomic determinants of health behaviours (Glanz *et al.,* 2008).

Despite the said lacunas, the theory remains relevant in discussing attitudes towards health-related information and matters. Thus, it is adopted in this study. Applying the HBM to study pregnant women accessing antenatal services in rural communities in Jalingo, Nigeria, highlights its relevance in understanding their behaviours regarding maternal health information. Perceived Susceptibility suggests that awareness of pregnancy-related risks motivates women to seek information. Perceived Severity underscores the impact of understanding potential complications on their health decisions. Action cues, such as interactions with healthcare providers, encourage women to seek and apply maternal health knowledge. Perceived benefits encourage the adoption of beneficial health practices, whereas perceived barriers, such as language barriers, impede access to maternal health information in clinical settings.

METHODS

This research adopts a descriptive qualitative research design to explore how pregnant women in rural communities in Jalingo, Taraba State, Nigeria, access and utilise maternal health information. This approach allows for an inductive exploration of participants' perspectives, aiming to uncover patterns and insights directly from their experiences. The study population consists of pregnant women attending antenatal clinics in three selected rural communities within Jalingo. Using purposive sampling, twenty-five participants were selected to ensure information-rich data collection, aligning with the study's qualitative

nature and the goal of reaching saturation in understanding the diversity of responses. Data collection employed semi-structured interviews conducted face-to-face, fostering rapport and enabling various explorations of maternal health information access. Prior to full implementation, a pilot test involving 10 participants validated the interview protocol for clarity and relevance. The interviews were conducted in local or vernacular language and then translated to English for analysis. Thematic analysis was used in the data analysis, allowing systematic identification and interpretation of significant themes emerging from the interviews.

Profile of Participants

This research adopts a descriptive qualitative research design to explore how pregnant women in rural communities in Jalingo, Taraba State, Nigeria, access and utilise maternal health information. This approach allows for an inductive exploration of participants' perspectives, aiming to uncover patterns and insights directly from their experiences. The study population consists of pregnant women attending antenatal clinics in three selected rural communities within Jalingo. Using purposive sampling, twenty-five participants were selected to ensure information-rich data collection, aligning with the study's qualitative nature and the goal of reaching saturation in understanding the diversity of responses. Data collection employed semi-structured interviews conducted face-to-face, fostering rapport and enabling various explorations of maternal health information access. Prior to full implementation, a pilot test involving 10 participants validated the interview protocol for clarity and relevance. The interviews were conducted in local or vernacular language and then translated to English for analysis. Thematic analysis was used in the data analysis, allowing the systematic identification and interpretation of significant themes emerging from the interviews.

RESULTS

RQ 1: What are the primary communication channels used by pregnant women to access maternal health information in rural communities in Jalingo, Taraba State?

Based on the interviews, it was revealed that hospital visitation at an antenatal appointment is the dominant means by which the participants' access to maternal health information Most of the participants assert that face-to-face interaction with nurses and other medical

officials during their antenatal appointment is the most viable channel for accessing maternal health information.

PT_2 revealed that:

> …Though there are several ways to access health information, especially maternal health information, I find that the information shared in prenatal classes is the most reliable because it comes directly from healthcare professionals…

PT_5 added:

> …I don't use or believe any maternal health information that is not from the medical official where I registered for antenatal care or where I always access health services. Health issues, particularly maternal issues, are so serious that I cannot joke with them.

PT_6 added emphatically:

> …When it comes to maternal health, I stick to the information provided by the medical officials at my registered antenatal clinic or the health service I trust. It's not something to take lightly; I need to be sure I'm getting the right guidance and support from trusted professionals who understand my specific needs…

RQ 2: What are the utilization patterns of maternal health information among pregnant women attending antenatal care services in rural communities in Jalingo, Taraba State?

The interviews revealed that the participants possess diverse utilisation patterns of maternal health information, which include understanding pregnancy stages, receiving advice on nutrition and exercise, preparing for childbirth, and gaining awareness about potential complications.

Understanding the Pregnancy Stages

According to PT_15:

> …the maternal health information I access goes a long way in helping me understand the various stages of pregnancy and the behaviours I need to adopt or stop at every given stage. From the early days of excitement and anticipation to the later stages filled with questions and uncertainties, this information becomes my compass, offering reassurance and clarity.

Similarly, PT _11 concurs:

> As a first-time expectant mother, I depend on maternal health information to learn more about body changes at every stage of my pregnancy journey and what I ought to do to avoid miscarriage or complications.

Advice on Nutrition and Exercise

According to PT_21:

> …my primary use of maternal health information is nutrition. I gain good information about the type of food I need to take and the ones I need to avoid.

In the same vein, PT_24 states that:

> Before I started my antenatal, I used to eat everything without knowing that most of the food I consumed could affect my baby and my health, but through my antenatal, I now know the right food to eat, especially the right fruits to take and those to avoid.

Similarly, PT_22 confirms that:

> I have significantly gained useful information about exercise and bed rest from the various maternal health resources I access, particularly from my hospital appointments. I don't know what would have happened to my pregnancy and personal health without having access to information and guides regarding rest and exercise.

Preparing for childbirth:

According to PT_22:

> … Through maternal health information I access from the hospital, I have learned a lot regarding how to prepare for childbirth. Aside from the physical preparation, I learned about the psychological preparation.

Also, PT_9 said:

> Maternal health information from nurses that attended to us during the antenatal session provided me with all the information regarding getting set for the baby. I learned about what I needed to buy, what clothes I needed to wear, and so many other things…

Furthermore, PT_13 said that:

> With the knowledge I gain from maternal health education, which I got during my hospital appointments, childbirth will not take me by surprise. Aside from understanding the needs that must be on the ground, I now understand the sign or pain for labour and what I need to do once I notice the sign.

Awareness about potential complications.

PT_7 said:

> I learned about the likely risks associated with childbearing and the likely causes for such risks." Understanding these risks not only helped alleviate my anxieties but also motivated me to prioritise regular check-ups and adopt healthy lifestyle practices.

Similarly, PT_8 added that:

> I had no idea about the various risks involved in pregnancy until I listened to nurses and medical doctors during antenatal. It opened my eyes to the importance of staying informed and proactive about my prenatal care.

Also, PT_4 opined that:

> It was through maternal health information during my appointment, I learned about the potential risks of pregnancy and childbirth. Learning about the potential risks during pregnancy made me more vigilant about my health and prompted me to seek medical advice promptly at the first sign of any issue…

RQ 3: What are the barriers and challenges encountered by pregnant women in accessing and utilizing maternal health information in rural communities in Jalingo, Taraba State?

According to the data, there are several challenges preventing pregnant women from accessing and utilising maternal health information. These include: language and communication barriers; time constraints and overcrowding; transportation and financial constraints; and the poor attitude of medical staff.

Language and Communication Barriers:

PT_24 states:

> For some of us who aren't fluent in English, understanding the medical jargon becomes a challenge. Sadly, the medical staff always use English instead of local languages. Even the posters, most of them used the English language, and a good number of women do not understand the language very well…

Supporting PT_9 revealed that:

> The communication barrier, especially as it relates to the dominant use of English in clinics or hospitals regarding maternal health issues is serious, denying many women access to or comprehension of the information…

Time Constraints and Overcrowding:

According to PT_10:

> …During antenatal visits, the hospital environment frequently overcrowded, with a steady stream of expectant mothers seeking care. Amidst this, healthcare providers appear to be perpetually pressed for time, rushing from one patient to the next. As a result, the opportunity for meaningful interaction and personalized attention each patient's limited time leaves little room for thorough discussions or addressing individual concerns. Many pregnant women find themselves grappling with a multitude of questions and uncertainties...

Similarly, PT_8 added:

> Antenatal appointments often take one's entire day due to the large number of women. Most of the time, one becomes tired, hungry, and helpless. Furthermore, the atmosphere of haste and urgency can

> inadvertently create a sense of unease among expectant mothers, inhibiting their willingness to speak up or seek clarification on important matters…

Transportation and Financial Constraints:

PT_7 asserts that:

> …For some of us living in distant areas, having low-income transportation costs to come for antenatal visits on a regular basis is a serious problem. Additionally, the cost of medical care and related expenses sometimes deter us from seeking additional information outside of the clinic.

PT_11 added:

> Honestly, accessing maternal health information is an issue for me due to the financial challenge. One is striving to eat and at the same time expected to come here [hospital], after the appointment pay some drugs, so I always skip coming to avoid such spending because I don't have and I can't kill myself, so everything is in the hands of God…

The medical staff's poor attitude:

According to PT_22,

> Honestly, most of the medical staff handling antenatal sessions are very rude. They don't empathise with pregnant women, regardless of the pain. They talk harshly about you, expecting you to know everything. This attitude made me not to waste my time asking them questions. As I come here, I only listen to what they say and go my way…

Additionally, PT_8 corroborates that:

> The bad attitude of some nurses and other staff is my major problem. Sometimes, when you come with questions, you may want to verify information you read somewhere about maternal health. These health officials will start shouting at you as if you are their child.

DISCUSSION

This study investigates maternal health information access, usage patterns, and challenges among pregnant women at FMC Jalingo. It reveals diverse sources, such as face-to-face interactions with hospital visitation during antenatal as the primary source, which corroborate previous findings. Kassim and Katunzi-Mollel (2017) found that women used different sources of information to satisfy their maternal health information needs, and that the majority of women preferred to use professional healthcare workers, such as community healthcare workers (CHWs). However the findings contradict prior studies conducted in rural Nigeria (Nwagwu & Ajama, 2011; Saleh & Lasisi, 2011), which revealed that regardless of the availability of professional healthcare workers, women preferred to seek health-related information from traditional informal sources of information such as

traditional healers, traditional birth attendants, faith healers, family and friends, drug hawkers, and home priests. They consulted these sources because they perceived them to be more reliable and authentic. In another contrast, Obasola and Mabawonku (2017) earlier revealed that Nigerian women are increasingly adopting ICT (mobile phones, radio, and television).

The study also revealed diverse patterns of use of maternal health information among the participants. These include information about nutrition, understanding pregnancy stages, receiving advice, preparing for childbirth, and potential complications. This supports previous findings by Obasola and Mabawonku (2017) indicating diverse use of maternal information among Nigerian women. The study further identified the challenges undermining access to maternal health information among the participants as poor staff attitudes, language barriers, and financial constraints. This finding corroborates the findings of prior studies (Musiimenta *et al.,* 2022; Mollel *et al*., 2024; Song et al., 2012), indicating that issues like overcrowded clinics, a lack of professionalism in handling pregnant women, and economic challenges are some major problems limiting many pregnant women, especially those in rural areas, from accessing maternal health information.

Overall, the study's findings align with the Health Belief Model (HBM), particularly in understanding participants' perceived susceptibility and severity of pregnancy and childbirth risks. The HBM posits that individuals assess the likelihood and seriousness of health threats, influencing their health-related behaviours such as seeking maternal health information. Face-to-face interactions with medical professionals also serve as cues to action, prompting information-seeking behaviours among pregnant women.

CONCLUSION

This study illuminates how pregnant women receiving antenatal care in rural communities in Jalingo, Taraba State, access and utilise maternal health information, as well as the challenges they encounter in this process. While the findings indicate that pregnant women have some access to maternal health information, which significantly aids them during pregnancy and childbirth, they are hindered by various factors that limit access to comprehensive and widespread information and services. Access to information empowers individuals to make informed decisions about their health, including adopting healthier

behaviours, accessing appropriate medications, and knowing where to seek necessary services.

Recommendations

Based on the findings, the following recommendations are proposed to enhance access to maternal health information and services for women in Jalingo, Taraba State:

1. The government should improve hospital infrastructure and services to alleviate overcrowding issues. To need to expand facilities and effective appointment systems to enhance access to maternal information and services for pregnant women.
2. The managers of hospitals and clinics need to provide comprehensive training to medical staff in rural areas to enhance and cultivate a positive attitude towards the delivery of maternal health information.
3. There is also a need to implement language interpretation services to overcome linguistic barriers and ensure effective communication with rural women having difficulty understanding English.
4. Health stakeholders involved in maternal health promotion should utilize a variety of channels to disseminate maternal health information beyond hospitals and clinics. This includes, among other things, community outreach programs and mobile clinics.

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