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# Maternal Health Status in Dikwa Local Government Area of Borno State, Nigeria

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## Abstract

*Maternal health, encompassing the physical and emotional well-being of women during pregnancy, childbirth, and the postpartum period, remains a critical issue in Nigeria, a country facing significant healthcare challenges. Despite being Africa's most populous nation, Nigeria has one of the highest maternal mortality rates globally, with 512 deaths per 100,000 live births in 2020, representing approximately 14% of global maternal deaths. Key factors contributing to this crisis include complications such as hemorrhage, infections, and eclampsia, alongside a shortage of trained healthcare personnel, particularly in rural areas. Socio-economic disparities further exacerbate the problem. The study discovered that 62.8% of the respondents in this study are unemployed and 42.8% earning less than ₦20,000 per month, restricting their ability to access healthcare. Also, 59.1% of respondents are married, while a significant proportion (32.2%) are aged 20-29 years and 30% are under 20, highlighting trends of early marriage and childbearing. The findings revealed that 44.4% of respondents prefer traditional birth attendants over medical professionals, reflecting a deep-rooted trust in traditional practices. Similarly, accessibility issues are evident, with 61.9% reporting poor infrastructure and long travel distances to healthcare facilities, while 79.4% cite financial barriers. Also, employment instability affects 47.8% of respondents, which further limiting access to care. Widespread dissatisfaction with service quality is reported, with only 18.1% rating healthcare services as excellent. Conclusively, these findings highlight the need for culturally sensitive, community-based interventions that address socio-economic, infrastructural, and cultural barriers to maternal health in Nigeria.*

Keywords
Healthcare, Women, Rural regions, Maternal mortality and Traditional practices

## I. Introduction

Maternal health remains a critical concern in Nigeria, a nation grappling with significant healthcare challenges despite being Africa's most populous country and one of its largest economies. The maternal mortality rate (MMR) in Nigeria is among the highest in the world, with an estimated 512 deaths per 100,000 live births as of 2020 (World Health Organization, 2021). This figure is substantially higher than the global average, reflecting systemic issues in the country's healthcare infrastructure, access to quality care, and socioeconomic disparities that disproportionately affect rural and impoverished populations.
Several factors contribute to Nigeria's high maternal mortality rate, including inadequate healthcare facilities, lack of skilled healthcare workers, and poor maternal health education.

According to the United Nations Population Fund (UNFPA), Nigeria accounts for about 14% of global maternal deaths, largely due to complications during childbirth such as hemorrhage, infections, eclampsia, and obstructed labor (UNFPA, 2021). The shortage of trained midwives and obstetricians, especially in rural areas, exacerbates the situation. A study by the World Bank (2020) found that the country faces a significant gap in the number of healthcare providers, with only 0.2 physicians per 1,000 people, which is far below the recommended threshold of 2.3 per 1,000 people by the WHO (Msughter et al., 2022).

Furthermore, the accessibility of healthcare services is hindered by geographic, financial, and cultural barriers. Many women in rural areas are unable to access skilled prenatal and postnatal care due to long distances to health facilities, high transportation costs, and traditional beliefs that discourage institutional deliveries (Ogunyemi et al., 2020; Usman et al., 2022). These barriers are compounded by economic factors, as many families cannot afford the cost of medical care, even at subsidized rates (Fayehun, 2021). As a result, the majority of births take place at home, often without the presence of a skilled attendant, increasing the risk of complications and death (Obada et al., 2021).

Efforts to reduce maternal mortality in Nigeria have been made through both government initiatives and international aid programs. The Nigerian government, in collaboration with global organizations such as WHO and the UNFPA, has implemented policies aimed at improving maternal health, including free maternal care in some regions, the provision of mobile health services, and the training of healthcare workers. However, challenges in implementation and funding continue to limit the effectiveness of these initiatives (WHO, 2021). Nevertheless, while there are efforts to address the maternal health crisis in Nigeria, much work remains to be done. Reducing maternal mortality in the country will require comprehensive reforms in healthcare infrastructure, better access to trained healthcare workers, improved education and awareness about maternal health, and stronger community engagement to overcome cultural and economic barriers (Obada et al., 2021). Only with a multifaceted approach can Nigeria begin to make substantial progress in reducing maternal deaths and improving the health and well-being of mothers across the country.

Maternal health in Nigeria and remains a pressing issue that demands a holistic and sustained approach to address its multifaceted challenges (Obada et al., 2024). While progress has been made through various interventions, significant gaps persist, particularly in rural and underserved communities and in Dikwa Local Government Area of Borno State. Therefore, the study seeks to explore specific cultural background that influences the choice of maternal healthcare provider, accessibility of maternal healthcare facilities, the quality of maternal healthcare services available and the extent to which the cultural community support eduation about maternal health in Dikwa Local Government Area of Borno State.

### 1.1 Research Questions

The research was guided by the following questions:

1. What specific cultural background influences the choice of maternal healthcare provider in Dikwa Local Government Area of Borno State?
2. How accessible are maternal healthcare facilities in Dikwa in Dikwa Local Government Area of Borno State?
3. What is the quality of maternal healthcare services available in Dikwa Local Government Area of Borno State?

4. To what extent does the cultural community support education about maternal health in Dikwa Local Government Area of Borno State?

## II. Review of Literature

Maternal health refers to the health and well-being of women during pregnancy, childbirth, and the postpartum period, encompassing both physical and emotional aspects. According to the World Health Organization (WHO), maternal health involves ensuring women receive the necessary care during these critical stages to reduce risks associated with maternal mortality and morbidity (WHO, 2011). Similarly, the Centers for Disease Control and Prevention (CDC) emphasizes the importance of preventing complications, addressing existing health conditions, and improving health outcomes for mothers and infants (CDC, 2020). The United Nations Population Fund (UNFPA) highlights that maternal health includes guaranteeing access to skilled care and family planning to prevent avoidable maternal deaths (Citaristi, 2022). The American College of Obstetricians and Gynecologists (ACOG) underscores the need to address conditions such as preeclampsia, diabetes, and mental health disorders, which are critical for ensuring both physical and emotional well-being during and after pregnancy (Khanna and Kumaresan, 2024). Furthermore, global health initiatives focus on improving maternal health by reducing disparities, particularly in underserved communities, and by ensuring comprehensive access to reproductive healthcare.

### 2.1 The State of Maternal Health in Nigeria

Nigeria, one of the most populous countries in sub-Saharan Africa, contributes approximately 20% of global maternal deaths, a staggering statistic that underscores the urgency of addressing maternal health issues in the country (World Health Organization, 2021). This alarming figure highlights Nigeria's significant role in the global challenge of improving maternal health, as the country struggles to meet Sustainable Development Goal (SDG) 3.1, which aims to reduce the global maternal mortality ratio (MMR) to less than 70 per 100,000 live births by 2030 (United Nations, 2015; Namadi & Aondover, 2020). Maternal health indicators in Nigeria are highly variable, with significant disparities between urban and rural areas. Women residing in rural regions face greater challenges due to limited access to healthcare facilities, skilled birth attendants, and emergency obstetric services. These areas often lack well-equipped health centers, and when complications arise, the referral system is inefficient, leading to delays in seeking and receiving timely care (Federal Ministry of Health, 2019).

As a result, women in rural regions are disproportionately affected by maternal mortality. The leading causes of maternal deaths in Nigeria are postpartum hemorrhage, sepsis, hypertensive disorders during pregnancy (such as eclampsia), complications from unsafe abortions, and obstructed labor. These direct medical causes are often aggravated by systemic factors, such as widespread poverty, inadequate healthcare infrastructure, and cultural practices that delay or prevent timely medical intervention (WHO, 2021; Msughter et al., 2023). For instance, many women in remote areas rely on traditional birth attendants, who may lack the necessary skills or equipment to manage complications, and cultural reluctance to seek formal medical care can exacerbate health risks (Adamu et al., 2019).

### 2.2 Contributing Factors to High Maternal Mortality

High maternal mortality in Nigeria is driven by a combination of socioeconomic inequalities, healthcare infrastructure deficiencies, cultural and educational barriers, and weak health policy implementation. Poverty significantly limits access to essential maternal

healthcare services, with many families unable to afford antenatal care, delivery services, or transportation to healthcare facilities, resulting in only 39% of women having skilled birth attendants during delivery (NDHS, 2018; Msughter & Phillips, 2020). Healthcare infrastructure, especially in rural areas, is inadequate, with many primary healthcare centers lacking essential equipment, qualified personnel, and effective referral systems, leading to delays in life-saving interventions (Federal Ministry of Health, 2019). Cultural norms and low female education levels exacerbate the problem, as traditional birth attendants are often preferred over skilled professionals, and low literacy reduces awareness of the importance of antenatal care and recognizing danger signs during pregnancy (WHO, 2021). Additionally, despite policies aimed at improving maternal health, gaps in implementation due to insufficient funding, corruption, and lack of accountability often prevent these initiatives from reaching vulnerable populations (Kurfi et al., 2021).

### 2.3 Some Steps that have been taken to Address Maternal Health in Nigeria

Nigeria has implemented various strategies to address maternal health challenges, aiming to reduce maternal mortality and improve healthcare services for women. The National Integrated Maternal, Newborn, and Child Health (NIMNCH) Strategy, adopted in 2007, promotes a continuum of care approach, integrating services to enhance maternal and child health outcomes (Ameh et al., 2015). Further efforts include the Maternal Death Surveillance and Response (MDSR) system, which mandates reporting and investigation of maternal deaths to identify causes and prevent future cases (World Health Organization, 2019). Investments have also been directed toward rural healthcare to improve access, staffing, and transportation, as well as reduce out-of-pocket expenses (Hile et al., 2022). Addressing barriers to utilizing healthcare facilities has been prioritized, with efforts focusing on skilled pregnancy care and community involvement (Onarheim et al., 2018).

An additional effort to address maternal health challenges in Nigeria is the Midwives Service Scheme (MSS), initiated in 2009 by the Federal Government through the National Primary Health Care Development Agency (NPHCDA). This program was designed to address the shortage of skilled birth attendants in rural and underserved areas. It involved recruiting and deploying midwives, nurses, and community health extension workers to primary healthcare centers to provide essential maternal and new born care services (Aliough et al., 2023). The MSS aimed to reduce maternal and neonatal mortality by ensuring the availability of skilled professionals at the grassroots level and improving access to quality care for pregnant women in rural communities (FMOH, 2010). These strategies reflect Nigeria’s commitment to improving maternal health outcomes through comprehensive, community-based, and infrastructure-focused approaches.

### 2.4 Empirical Review

Maternal health in Northeast Nigeria faces significant challenges, including high maternal mortality rates and low utilization of maternal health services. A study in Borno State revealed that while community members were aware of maternal deaths, misconceptions about their causes persisted. Respondents identified implications of maternal mortality and suggested improvements for maternal health, indicating that intervention programs should leverage community perceptions to address maternal deaths effectively (Mairiga & Kawuwa, 2010). In rural communities, utilization of maternal health services remains low. Research in two rural areas of Northeast Nigeria found that only 10.3% of women utilized delivery services, and 26.2% accessed postnatal care. Factors such as male involvement and husbands' educational attainment significantly influenced the likelihood of having a skilled attendant at birth. The study highlighted the need for innovative approaches

to improve female education and involve males and communities in maternal health initiatives (Bawa et al., 2004).

Barriers to utilizing maternal health services include socio-economic factors and negative perceptions of healthcare providers. In a semi-urban community in Northern Nigeria, despite proximity to health facilities, many mothers did not use maternal health services. Reasons included previous uncomplicated deliveries and negative provider attitudes. The study recommended raising awareness, improving access, and enhancing the quality of care to address these challenges (Okonofua et al., 2013). Efforts to improve maternal and newborn health services through government-led partnerships have shown promise. In Gombe State, a quasi-experimental study reported that interventions aimed at enhancing access, use, quality, and equity of maternal and newborn healthcare led to improvements. The study emphasized the importance of robust governance and coordinated efforts among stakeholders to effectively scale and integrates health interventions within existing health systems (Adeloye et al., 2022).

Addressing mistreatment during institutional deliveries is also crucial. A mixed-method study in Northeast Nigeria found that women experienced various forms of mistreatment, including physical and verbal abuse, during facility-based childbirth. Improving respectful maternity care by understanding women's preferences and addressing systemic issues can enhance service utilization and maternal health outcomes (Bohren et al., 2019).

## 2.5 Theoretical Framework

The research used the Social Determinants of Health. The Social Determinants of Health (SDH) refer to the non-medical factors that influence health outcomes. These include conditions in which people are born, grow, work, live, and age, as well as the wider set of forces and systems shaping the conditions of daily life. These determinants encompass socioeconomic status, education, neighborhood and physical environment, employment, social support networks, and access to healthcare (Airaoje et al., 2024). The World Health Organization (WHO) highlights that these factors are primarily responsible for health inequities—the unfair and avoidable differences in health status seen within and between countries (WHO, 2010).

The Social Determinants of Health (SDH) theory has developed over time through contributions from various thinkers and organizations, rather than being attributed to a single individual or year. Early foundations were laid by Friedrich Engels in 1845, who linked poor living conditions to ill health (Engels, 1845), and Rudolf Virchow in 1848, who emphasized the impact of social and political factors on health (Virchow, 1848). The concept gained institutional recognition with the World Health Organization's (WHO) 1986 Ottawa Charter for Health Promotion, which highlighted the importance of social, economic, and environmental factors (WHO, 1986; Airaoje et al., 2023). Sir Michael Marmot further advanced the theory in 2008 through his leadership of the WHO Commission on Social Determinants of Health, culminating in the landmark report Closing the Gap in a Generation (WHO, 2008). This evolution reflects the theory’s interdisciplinary roots and its focus on addressing health inequities globally.

The Social Determinants of Health (SDH) theory has several strengths and weaknesses. Among its strengths, it offers a holistic approach by integrating social, economic, and environmental factors to provide a comprehensive understanding of health disparities (Marmot & Wilkinson, 2005). It is policy-relevant, offering actionable insights for addressing systemic inequities, and has global applicability, making it useful in both high- and low-income settings (WHO, 2008). Moreover, its focus on equity aligns with global health goals

like the Sustainable Development Goals (SDGs) (United Nations, 2015). However, the theory faces challenges in implementation due to the need for intersectoral collaboration, which is often hindered by bureaucratic and resource constraints (Solar & Irwin, 2010). Measuring the impact of social determinants is also complex due to their interdependent nature (Marmot, 2010). Additionally, while addressing structural factors, the theory may underemphasize individual agency and resilience. Its reliance on sustained political will further complicates effective implementation, particularly in contexts with competing priorities or limited resources (WHO, 2008; Airaoje et al., 2024).

The Social Determinants of Health theory underscores the importance of addressing structural and systemic factors to improve health outcomes and reduce inequalities (Ahmed & Msughter, 2022). While it holistic and equity-focused framework makes it a powerful tool for understanding and addressing health disparities, its practical application requires overcoming significant challenges, particularly in measurement and policy implementation (Aondover et al., 2025). Hence, the theory is used for this study.

## III. Research Methods

This study was conducted in Dikwa Local Government Area (LGA) of Borno State, Nigeria. Dikwa LGA is a predominantly rural area with a diverse population that relies on both traditional and modern healthcare practices. The study area was selected due to its unique socio-cultural and economic characteristics, which may significantly influence maternal health outcomes. The study employed a descriptive cross-sectional survey design to examine the cultural and socioeconomic factors affecting maternal health in Dikwa LGA. This design was chosen as it allows for the collection of data from a representative sample at a single point in time, providing insights into the existing conditions and factors influencing maternal health. The target population consisted of women of reproductive age (15–49 years) residing in Dikwa LGA. The study focused on women who had experienced pregnancy and childbirth, as they are most directly affected by maternal health issues.

A multistage sampling technique was employed to select the respondents. The process involved the following steps:

1. Selection of Communities: Several wards within Dikwa LGA were purposively selected based on their population size and accessibility.
2. Selection of Households: A systematic random sampling technique was used to select households within each selected ward.
3. Selection of Respondents: In each household, one eligible woman was selected using simple random sampling.

The sample size was determined using Cochran's formula for survey studies, ensuring adequate representation of the study population. A structured questionnaire titled Cultural and Socioeconomic Factors Influencing Maternal Health in Nigeria was used to collect primary data. The questionnaire consisted of three sections:

a. Section A: Demographic Information – Age, marital status, education level, occupation, and income.
b. Section B: Cultural Factors – Influence of cultural background on maternal healthcare choices, impact of traditional practices, barriers posed by cultural beliefs, and decision-making within households.
c. Section C: Socioeconomic Factors – Financial constraints, accessibility of healthcare facilities, employment status, awareness of support programs, and perceptions of healthcare quality.

Data collection was carried out by trained research assistants who administered the questionnaire through face-to-face interviews. This approach was used to accommodate respondents with low literacy levels and ensure the accuracy of responses. The collected data were coded and entered into Statistical Package for the Social Sciences (SPSS) version 25 for analysis. Descriptive statistics such as frequencies and percentages were used for the data analysis. Verbal and written informed consent were obtained from all respondents before participation. Anonymity and confidentiality of the participants were maintained throughout the study. Potential limitations included recall bias, social desirability bias, and limited accessibility to some communities due to security challenges in Borno State. Efforts were made to mitigate these limitations by cross-checking responses and ensuring a safe data collection process.

## IV. Results and Discusion

**Table 1**. Age of the respondents

| | Frequency | Percent |
|---|---|---|
| 20-29 | 103 | 32.2 |
| 30-39 | 84 | 26.3 |
| 40 and above | 37 | 11.6 |
| Below 20 | 96 | 30.0 |
| Total | 320 | 100.0 |

From table 1 above, the age distribution of respondents shows that the largest group falls between 20-29 years with 103 (32.2%), followed by those below 20 years with 96 (30%). Those aged 30-39 years account for 84(26.3%), while 37(11.6%) of the respondents are 40 years and above. The data indicated that most of the respondents are within the age range of 20-29 years.

**Table 2.** Marital status

| | Frequency | Percent |
|---|---|---|
| Single | 63 | 19.7 |
| Married | 173 | 54.1 |
| Widowed | 48 | 15.0 |
| Divorced | 36 | 11.3 |
| Total | 320 | 100.0 |

From table 2 above, in terms of marital status, 173 respondents (54.1%) are married, 63 (19.7%) are single, 48 (15.0%) are widowed, and 36 (11.3%) are divorced. Based on the data, most of the respondents are married.

**Table 3.** Level of education

| | Frequency | Percent |
|---|---|---|
| No formal education | 189 | 59.1 |
| Primary education | 61 | 19.1 |
| Secondary education | 48 | 15.0 |

| | | |
|---|---|---|
| Tertiary education | 22 | 6.9 |
| Total | 320 | 100.0 |

From table 3, educational levels reveal that 189 respondents (59.1%) have no formal education, 61 (19.1%) attained primary education, 48 (15.0%) completed secondary education, and 22 (6.9%) have tertiary education. The data revealed that most of the respondents have no formal education.

**Table 4**. Occupation status

| | Frequency | Percent |
|---|---|---|
| Unemployed | 201 | 62.8 |
| Self-employed | 63 | 19.7 |
| Government-employed | 15 | 4.7 |
| Private sector | 41 | 12.8 |
| Total | 320 | 100.0 |

Occupational data indicates that 201 respondents (62.8%) are unemployed, 63 (19.7%) are self-employed, 41 (12.8%) work in the private sector, and 15 (4.7%) are government-employed. Based on the data, most of the respondents are unemployed.

**Table 5.** Monthly income rate

| | Frequency | Percent |
|---|---|---|
| ₦20,000 -₦50,000 | 115 | 35.9 |
| ₦50,000 -₦100,000 | 46 | 14.4 |
| Above ₦100,000 | 22 | 6.9 |
| Below ₦20,000 | 137 | 42.8 |
| Total | 320 | 100.0 |

Monthly income levels show that 137 respondents (42.8%) earn below ₦20,000, 115 (35.9%) fall within ₦20,000 - ₦50,000, 46 (14.4%) earn ₦50,000 - ₦100,000, and 22 (6.9%) earn above ₦100,000. The data showed that most of the respondents earn below ₦20,000 monthly.

**Table 6.** Influence of cultural background on the choice of maternal healthcare

| | Frequency | Percent |
|---|---|---|
| Traditional birth attendants | 142 | 44.4 |
| Family recommendations | 105 | 32.8 |
| Medical professionals | 73 | 22.8 |
| Total | 320 | 100.0 |

Table 6 shows the influence of cultural background on maternal healthcare choices, 142 respondents (44.4%) prefer traditional birth attendants, 105 (32.8%) rely on family recommendations, and 73 (22.8%) choose medical professionals. The data indicated that most of the respondents prefer traditional birth attendants.

**Table 7.** Impact of traditional practices on maternal healthcare outcomes

| | Frequency | Percent |
|---|---|---|
| Positively | 183 | 57.2 |
| Negatively | 54 | 16.9 |
| No impacts | 83 | 25.9 |
| Total | 320 | 100.0 |

Table 7 above indicates the impact of traditional practices on maternal health outcomes, 183 respondents (57.2%) believe the impact is positive, 54 (16.9%) see it as negative, and 83 (25.9%) think there is no impact. Based on the data, most of the respondents believe that there is positive impact of traditional practices on maternal health outcomes.

**Table 8.** Traditional beliefs or taboos as barriers to seeking modern healthcare

| | Frequency | Percent |
|---|---|---|
| Yes | 134 | 48.2 |
| No | 186 | 51.8 |
| Total | 320 | 100.0 |

Table 8 above showed whether traditional beliefs or taboos hinder access to modern maternal healthcare, 186 respondents (58.1%) do not agree, while 134 (48.2%) agree. The data indicated that most of the respondents do not agree that traditional beliefs or taboos hinder access to modern maternal healthcare.

**Table 9.** Decision-making about maternal health in household influenced by cultural norms

| | Frequency | Percent |
|---|---|---|
| Yes, solely by the husband or elders | 146 | 45.6 |
| Joint decision with partner | 79 | 24.7 |
| Individual decision | 95 | 29.7 |
| Total | 320 | 100.0 |

Table 9 above shows the influence of cultural norms on household decisions on maternal health, with 146 respondents (45.6%) reporting decisions made solely by husbands or elders, 79 (24.7%) indicating joint decisions with a partner, and 95 (29.7%) making individual decisions. Based on the data, most of the decisions are solely made by husbands or elders. This indicates that the women are often consulted on maternal healthcare issues.

**Table 10.** If cultural community support education about maternal health

| | Frequency | Percent |
|---|---|---|
| Strongly supportive | 127 | 39.7 |
| Moderately supportive | 148 | 46.3 |
| Not supportive | 45 | 14.1 |
| Total | 320 | 100.0 |

Table 10 showed whether cultural community support education about maternal health. Based on the data, 127 respondents (39.7%) described their community as strongly supportive, 148 (46.3%) as moderately supportive, and 45 (14.1%) as not supportive.

Therefore, most of the respondents indicated that cultural community moderately support education about maternal health. This has shown that there is a great need and gap to ensure that maternal health is strongly supported in the community.

**Table 11.** Financial constraints to accessing quality maternal healthcare

| | Frequency | Percent |
|---|---|---|
| Yes | 254 | 79.4 |
| No | 66 | 20.6 |
| Total | 320 | 100.0 |

Table 11 showed financial constraints to accessing quality maternal healthcare. 254 respondents (79.4%) reported that there is financial constraints to accessing maternal healthcare, while 66 (20.6%) do not perceive it as a constraint. The data indicated that there are financial constraints to accessing quality maternal healthcare.

**Table 12.** Accessibility of maternal healthcare facilities

| | Frequency | Percent |
|---|---|---|
| Very accessible | 35 | 10.9 |
| Moderately accessible | 87 | 27.2 |
| Not accessible | 198 | 61.9 |
| Total | 320 | 100.0 |

Table 12 shows the extent of accessing maternal healthcare facilities. 198 respondents (61.9%) stated that facilities are not accessible, 87 (27.2%) said they are moderately accessible, and 35 (10.9%) reporting they are very accessible. Based on the data, most of the respondents stated that maternal health facilities are not accessible.

**Table 13.** Influence of employment status with the ability to access maternal health

| | Frequency | Percent |
|---|---|---|
| Yes, positively | 49 | 15.3 |
| Yes, negatively | 153 | 47.8 |
| No influence | 118 | 36.9 |
| Total | 320 | 100.0 |

Table 13 above showed influence of employment status with the ability to accessing maternal healthcare. From the data, 153 respondents (47.8%) are experiencing negative influences of employment status with the ability of to access maternal health, 49 (15.3%) reported positive effects, and 118 (36.9%) perceived no influence. Based on the data, most of the respondents are experiencing negative influences of employment status with the ability of accessing maternal health.

**Table 14.** Government or NGO programs providing financial or medical support for maternal health

| | Frequency | Percent |
|---|---|---|
| Yes | 164 | 51.2 |
| No | 156 | 48.8 |

| | | |
|---|---|---|
| Total | 320 | 100.0 |

Table 14 showed data on awareness of government or NGO programs providing maternal health support. There is nearly evenly split, with 164 respondents (51.2%) aware and 156 (48.8%) unaware. Based on the data, most of the respondents are aware of government or NGO programs providing maternal health support. However, accessibility is difficult due to cultural beliefs and financial status of the people.

**Table 15.** Quality of maternal healthcare services available in your community

| | Frequency | Percent |
|---|---|---|
| Excellent | 58 | 18.1 |
| Good | 77 | 24.1 |
| Fair | 83 | 25.9 |
| Poor | 102 | 31.9 |
| Total | 320 | 100.0 |

Table 15 showed data on quality of maternal healthcare services in the community. It is rated as poor by 102 respondents (31.9%), fair by 83 (25.9%), good by 77 (24.1%), and excellent by 58 (18.1%). The data indicated that the quality of maternal healthcare in the community is poor.

**Discussion of Findings**

The data provides valuable insights into the demographic, educational, occupational, and economic status of respondents in the context of maternal healthcare. Table 1 shows that the majority of respondents are aged 20-29 years (32.2%), followed by those under 20 years (30%), indicating a significant portion within the reproductive age range, often associated with early marriage and childbearing (WHO, 2019). Table 2 reveals that most respondents are married (54.1%), with smaller proportions being single (19.7%), widowed (15%), or divorced (11.3%), highlighting the importance of focusing maternal healthcare interventions on married women, while also considering the needs of other marital groups (Obi & Ozumba, 2007). Table 3 shows that 59.1% of respondents have no formal education, which can limit access to healthcare information and services, reinforcing the need for targeted educational programs (UNICEF, 2021). Table 4 indicates that 62.8% of respondents are unemployed, suggesting economic vulnerability that may hinder access to maternal healthcare services, a common issue in low-resource settings (Nwaeze et al., 2013). Finally, Table 5 shows that 42.8% of respondents earn below ₦20,000 monthly, underlining the financial barriers to accessing healthcare and the need for affordable, subsidized services (Gernah et al., 2018). Addressing these challenges is critical for improving maternal health outcomes.

**Q1. What specific cultural background influences the choice of maternal healthcare provider in Dikwa Local Government Area of Borno State?**

The interpretation of data from Tables 6, 7, and 8 highlights the influence of cultural factors on maternal healthcare choices, outcomes, and barriers. Table 6 demonstrates that cultural background significantly impacts maternal healthcare choices, with 44.4% of respondents (n=142) preferring traditional birth attendants, followed by 32.8% (n=105) relying on family recommendations, and 22.8% (n=73) opting for medical professionals. This finding aligns with previous studies indicating that cultural norms and trust in traditional birth attendants shape healthcare-seeking behavior in many low-resource settings (Gabrysch & Campbell, 2009).

Table 7 explores the perceived impact of traditional practices on maternal health outcomes, where the majority (57.2%, n=183) report positive effects, while 16.9% (n=54) perceive negative impacts, and 25.9% (n=83) report no significant effect. This result is consistent with the literature showing that some traditional practices, such as dietary restrictions and use of herbal remedies, can be perceived as beneficial despite a lack of evidence-based validation (Izugbara & Ukwayi, 2004).

In Table 8, the potential barriers posed by traditional beliefs or taboos are addressed. While 51.8% (n=186) of respondents disagree that these beliefs hinder access to modern healthcare, 48.2% (n=134) acknowledge them as barriers, revealing a divided perspective. Previous research suggests that traditional beliefs, including fear of breaking taboos or mistrust of modern practices, often deter women from seeking skilled healthcare (WHO, 2019). Collectively, these findings underscore the complex interplay between cultural traditions and maternal healthcare choices, outcomes, and access.

**Q2. How accessible are maternal healthcare facilities in Dikwa in Dikwa Local Government Area of Borno State?**

From table 12, the majority of respondents (61.9%) reported that maternal healthcare facilities are not accessible, while only 10.9% found them very accessible. This finding is consistent with research by Gabrysch and Campbell (2009), which highlights that distance to healthcare facilities is a major barrier to accessing maternal health services, particularly in rural areas. Efforts to improve accessibility should focus on developing healthcare infrastructure in underserved areas, as demonstrated by Kerber et al. (2007), who found that increasing the density of healthcare facilities significantly reduced maternal mortality rates in low-resource settings. Investments in community-based healthcare and mobile clinics may also help mitigate these challenges.

Table 11 indicates that financial constraints are a significant barrier, with 79.4% of respondents identifying it as a problem. Similar findings were reported by Kiessling et al. (2021), who noted that out-of-pocket expenses, including consultation fees, medication costs, and transportation, disproportionately impact low-income families. Furthermore, a study by Kabia et al. (2021) found that financial barriers are one of the leading causes of delayed or foregone maternal healthcare in sub-Saharan Africa and South Asia. Policy initiatives like Ethiopia's fee-waiver program for maternal health services (Birmeta et al., 2013) have shown promise in addressing these financial challenges. Expanding health insurance schemes, such as the Ghana National Health Insurance Scheme (NHIS), has also demonstrated significant improvements in maternal healthcare utilization (Witter et al., 2009).

From table 13, almost half (47.8%) of respondents reported a negative influence of employment status on accessing maternal healthcare, consistent with findings from Amin and Islam (2022), who observed that women in informal or low-paying jobs often lack maternity leave or health benefits. Additionally, research by Warri and George (2020) revealed that women with insecure employment face time constraints, making it difficult to attend antenatal appointments. Conversely, a smaller proportion of respondents (15.3%) reported positive effects, which aligns with findings from Moller et al. (2017), where women in stable, formal employment were more likely to access maternal healthcare due to employer-provided health insurance and maternity leave. Policies promoting workplace benefits, such as paid maternity leave and subsidized health insurance, are critical to improving maternal healthcare access, as demonstrated in high-income countries by Heymann et al. (2013).

**Q3. What is the quality of maternal healthcare services available in Dikwa Local Government Area of Borno State?**

Table 15 reveals that the perceived quality of maternal healthcare services is a critical concern in the community. Only 18.1% of respondents rated the services as excellent, while 24.1% described them as good. In contrast, 25.9% rated them as fair, and the majority (31.9%) rated them as poor. This distribution suggests a widespread dissatisfaction with maternal healthcare quality. This perception may reflect challenges such as limited healthcare infrastructure, inadequate staffing, or poor patient-provider interactions. Similar findings have been documented in other studies, where maternal healthcare quality is often compromised in underserved communities due to resource constraints and systemic inefficiencies (Bhutta et al., 2018; WHO, 2019).

Table 14 indicates that 51.2% of respondents are aware of government or NGO programs providing financial or medical support for maternal health, while 48.8% are unaware. The nearly even split highlights a gap in the dissemination of information about available programs. While awareness levels are relatively high, accessibility issues persist due to cultural beliefs and financial barriers. Cultural norms, particularly in patriarchal societies, may discourage women from seeking care, while financial limitations prevent many families from taking advantage of available services, even when aware of them (Campbell et al., 2016; UNICEF, 2020).

**Q4. To what extent does the cultural community support education about maternal health in Dikwa Local Government Area of Borno State?**

Table 10 indicates varying levels of community support for education on maternal health. While 39.7% of respondents described their community as strongly supportive, the largest group (46.3%) reported moderate support, and 14.1% noted a lack of support. This distribution highlights a mixed level of engagement within communities regarding maternal health education. The predominance of moderate support suggests that while there is some acknowledgment of the importance of maternal health education, significant gaps remain. The lack of strong support in many communities could result in missed opportunities to improve maternal health outcomes through education. Previous research of Jones et al. (2019) emphasizes the importance of strong community involvement in health education programs to overcome cultural barriers and improve maternal and child health outcomes.

Table 9 reveals that decision-making in households regarding maternal health is heavily influenced by cultural norms. A significant portion of respondents (45.6%) reported that decisions are solely made by husbands or elders, reflecting a patriarchal structure within these households. This indicates a limitation in women's autonomy over their healthcare, which could impact timely and informed decisions regarding maternal health services. However, 24.7% of respondents indicated that decision-making is done jointly with their partners, suggesting some level of shared responsibility and consultation. Encouragingly, 29.7% reported making individual decisions, demonstrating a shift towards women's empowerment in healthcare-related choices. These findings align with prior studies like Smith et al. (2021) and WHO (2020), which highlight the impact of sociocultural norms on healthcare decision-making in maternal health, with patriarchal structures often hindering women's ability to access timely care. Strategies to encourage more equitable decision-making structures are critical for improving maternal health outcomes.

## V. Conclusion

Maternal health refers to the health and well-being of women during pregnancy, childbirth, and the postpartum period, encompassing both physical and emotional aspects. It also involves ensuring women receive the necessary care during these critical stages to reduce risks associated with maternal mortality and morbidity. Maternal health remains a critical concern in Nigeria, a nation grappling with significant healthcare challenges despite being Africa's most populous country and one of its largest economies. The maternal mortality rate (MMR) in Nigeria is among the highest in the world, with an estimated 512 deaths per 100,000 live births as of 2020. This figure is substantially higher than the global average, reflecting systemic issues in the country's healthcare infrastructure, access to quality care, and socioeconomic disparities that disproportionately affect rural and impoverished populations. Nigeria accounts for about 14% of global maternal deaths, largely due to complications during childbirth such as hemorrhage, infections, eclampsia, and obstructed labor. The shortage of trained midwives and obstetricians, especially in rural areas, exacerbates the situation.

A significant proportion of respondents in this study are within the reproductive age range, with 32.2% aged 20-29 years and 30% under 20, indicating early marriage and childbearing trends. More than half (54.1%) are married, while others are single (19.7%), widowed (15%), or divorced (11.3%). However, 59.1% of respondents lack formal education, highlighting a critical need for community-based maternal healthcare education. Additionally, 62.8% are unemployed, and 42.8% earn less than ₦20,000 per month, which severely limits their ability to afford healthcare services. These factors point to the necessity of designing interventions that target both married women and economically vulnerable groups.

Cultural influences significantly shape maternal healthcare decisions, as 44.4% of respondents prefer traditional birth attendants over medical professionals, reflecting a deep-rooted trust in traditional practices. While 57.2% view traditional methods as beneficial, nearly half (48.2%) also recognize that they can hinder access to modern healthcare. This duality calls for culturally sensitive interventions that combine traditional practices with evidence-based care. Accessibility to healthcare is a major concern, with 61.9% reporting poor infrastructure and long travel distances to facilities, and 79.4% citing financial barriers. Furthermore, 47.8% of respondents face employment-related challenges, such as unstable or informal jobs, which restrict access to healthcare. Community dissatisfaction with service quality is widespread, with only 18.1% rating services as excellent, while awareness of support programs is uneven, with 51.2% aware of government and NGO initiatives. This indicates a need for better outreach to ensure equitable healthcare access.

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