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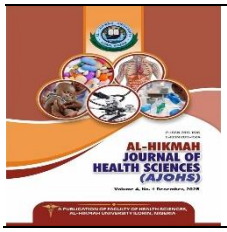

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Knowledge and Utilisation of Maternal and Child Health Services Among Women of Reproductive Age in Ilorin West Local Government Area of Kwara State

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ABSTRACT

Background: Maternal and child health (MCH) services remain critical for reducing preventable morbidity and mortality among reproductive women in Nigeria. However, utilisation of these services varies across communities. This study assessed the knowledge and utilisation of maternal and child health services among women of reproductive age in Ilorin West Local Government Area of Kwara State.

Methodology: A descriptive cross-sectional study was conducted among 250 women aged 15–49 years selected using a multistage-sampling technique. Data were collected using a pre-tested, self-structured questionnaire. Descriptive statistics were computed and data were presented using frequencies and percentages.

Results: Knowledge of key MCH services was generally high, with majority of respondents aware of maternal care, and child-health services. Utilisation of maternal health services showed that 70.4% attended antenatal care, 64.4% utilised delivery services, and 62.4% attended postnatal care. 67.6% utilised immunisation services, while 90.8% participated in health education sessions. Major barriers to utilisation included distance to health facilities, transportation, cost of services, negative attitudes of health workers, and cultural or religious beliefs.

Conclusion: Although knowledge and utilisation of MCH services were relatively high, persistent structural and socio-cultural barriers limit optimal uptake. Strengthening service accessibility, affordability, and quality of care is essential for improving maternal and child health outcomes.

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Introduction

Maternal and Child Health (MCH) is a core component of public health concerned with the well-being of women during pregnancy, childbirth, and the postpartum period, as well as the healthy development of children from conception to adolescence (WHO, 2023). Despite global progress in reducing maternal and child deaths, low- and middle-income countries (LMICs) continue to experience disproportionately high morbidity and mortality rates (UNICEF, 2021). These persistent disparities reflect deep-rooted socio-economic, cultural, and health system challenges.

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Nigeria faces a particularly critical MCH situation. Although some improvements have been recorded, maternal and child mortality rates remain among the highest globally. The 2018 National Demographic and Health Survey (NDHS) reported a maternal mortality ratio of 512 deaths per 100,000 live births and persistently high under-five mortality rates, largely from preventable illnesses such as malaria, pneumonia, and diarrhea (WHO, 2020). Barriers such as poor access to quality healthcare, insufficient infrastructure, cultural practices, and low awareness of available services continue to undermine progress (Oleribe et al., 2020).

Knowledge of MCH services, such as antenatal care (ANC), skilled birth attendance (SBA), postnatal care (PNC), immunization, and child nutrition, is essential for increasing utilisation and improving outcomes (Adedokun et al., 2020). However, gaps in awareness, combined with financial constraints, distance to facilities, and negative healthcare experiences, hinder optimal service uptake (Afulani et al., 2018). Recent evidence further highlights high levels of obstetric complications, limited skilled birth attendance, and substantial neonatal deaths in Nigerian health facilities (Ujah et al., 2022). Given regional disparities within Nigeria, there is a need to examine local patterns of MCH knowledge and utilisation. This study therefore focused on Ilorin West Local Government Area of Kwara State to better understand contextual factors influencing MCH service uptake and to inform targeted interventions.

Research Questions

The following research questions were formulated to guide this study

1. What is the level of knowledge of available MCH services among women of reproductive age in Ilorin West Local Government Area of Kwara State?
2. What is the utilisation level of MCH services among women of reproductive age in Ilorin West Local Government Area of Kwara State?
3. What are the factors affecting utilisation of MCH services among women of reproductive age in Ilorin West Local Government Area of Kwara State?

Method

Study Area: Ilorin West Local Government Area (LGA) is located in Kwara State, North-Central Nigeria, and forms a significant part of the Ilorin metropolis. The area has a tropical savanna climate characterized by distinct wet and dry seasons, with an average annual rainfall of approximately 1,200–1,500 mm and mean temperatures ranging from 26°C to 34°C. Ilorin West LGA is predominantly inhabited by the Yoruba ethnic group, whose cultural and social practices influence maternal and child health–seeking behaviour. Health infrastructure in the area includes public and private facilities such as General Hospital Ilorin, Sobi Specialist Hospital, and several Primary Health Care (PHC) centres. These facilities provide essential maternal and child health (MCH) services.

Study Design and Population: A descriptive cross-sectional study design was adopted to assess the knowledge and utilisation of maternal and child health services among women of reproductive age in Ilorin West Local Government Area of Kwara State. This design was appropriate as it allowed for the collection of data on knowledge, utilisation patterns, and influencing factors at a single point in time. The study population comprised all women of reproductive age (15–49 years) residing in Ilorin West LGA. According to the National Population Commission, Ilorin West LGA has an estimated population of approximately 364,666 people.

Inclusion criteria: women aged 15–49 years who resided in Ilorin West LGA and consented to participate in the study were included.

Exclusion Criteria: women outside the reproductive age group, women who declined participation, and those who did not reside within the study area were excluded.

Sample Size Determination: The minimum sample size for the study was determined using Cochran's formula for single proportions:

$$n = \frac{Z^2 pq}{e^2}$$

Where;

n = Minimum sample size for a statistically significant survey

Z = standard normal deviate at 95% confidence level (1.96)

p = estimated utilisation proportion (0.19)

q = 1 – p (81)

e = margin of error (0.05)

The assumed utilisation rate of 19% was based on findings from a previous Nigerian study conducted in the Southeast region (Ige et al., 2023). Substituting into the formula:

$$n = \frac{1.96^2 \times 0.19 \times 0.81}{0.05^2}$$

n = 236.4889; n ≈ 236 respondents

After adjusting for a 10% non-response rate, the final sample size was rounded up to **250 respondents**.

Sampling Technique: A multistage sampling technique was employed. Ilorin West LGA is divided

P-ISSN: 2811-1516
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into twelve political wards. Six wards were selected using simple random sampling by balloting without replacement. Two communities were randomly selected from each selected ward, giving a total of twelve communities. In each selected community, households were selected using systematic sampling after household listing, with the sampling interval determined accordingly. One eligible woman of reproductive age was selected per household using simple random sampling. Where no eligible woman was found, the next household was considered until the required sample size was achieved.

Study Instrument, Pre-test and Reliability of Instrument: Data were collected using a self-structured questionnaire consisting of four sections: Section A – socio-demographic characteristics; Section B – knowledge of available maternal and child health services; Section C – utilisation of maternal and child health services; Section D – factors affecting utilisation of maternal and child health services. The questionnaire was pre-tested among 30 women of reproductive age (approximately 12% of the study sample) in a community outside the study area. This process helped to assess clarity, content validity, and reliability of the instrument. Necessary modifications were made based on feedback from the pre-test. The internal consistency of the questionnaire items was confirmed to be acceptable (Cronbach's alpha ≥ 0.70).

Ethical Considerations: Ethical approval was obtained from the Health Research Ethics Committee of Kwara State Ministry of Health (Approval No: ERC/MOH/2025/08/488). Written informed consent was obtained from all participants. Confidentiality and anonymity were ensured by excluding personal identifiers from the questionnaires.

Limitations of the Study: The study relied on self-reported information, which may be subject to recall bias or social desirability bias. Additionally, the use of descriptive analysis limited causal inference. Efforts were made to minimize these limitations through confidentiality assurances and careful questionnaire administration.

Results

Socio-Demographic Characteristics of Respondents: Most respondents were married **175** (70.0%)**,** followed by single women 65 (26.0%)**,** while 10 (4.0%) were divorced. The majority of respondents were aged 26–35 years (64.4%)**,** followed by 15–25 years (25.6%), and 36 years and above (10.0%)**.** Most respondents had secondary education (66.4%)**,** while 26.0% had primary education and 7.6% attained tertiary education. Civil servants constituted 33.6%**,** traders 30.4%, artisans 20.4%**,** farmers 3.6%**,** and unemployed respondents 12.0%**.** Overall, respondents were predominantly married women within the economically active age group, with at least secondary education and some form of employment (Table 1).

Table 1: Marital Status and Age Distribution of the Respondents

Marital Status	**Frequency**	**Percentage (%)**
Single	65	26.0
Married	175	70.0
Divorced	10	4.0
Age		
15-25 years	64	25.6
26-35 years	161	64.4
36 years and above	25	10.0
Educational Background		
Primary Education	65	26.0
Secondary Education	166	66.4
Tertiary Education	19	7.6
Employment Status		
Civil Servant	84	33.6
Farmer	9	3.6
Trader	76	30.4
Artisan	51	20.4
Unemployed	30	12.0

Research Question 1: What is the level of knowledge of available MCH services among women of reproductive age in Ilorin West Local Government Area of Kwara State?

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E-ISSN: 2811-1524

Awareness of maternal and child health services was generally high among respondents. Knowledge of postnatal care services was highest (84.0%), followed by awareness of antenatal care (80.4%) and child immunisation services (78.8%). Knowledge of skilled birth attendance (74.8%), family planning (73.2%), and emergency maternal care services (75.2%) was also high. Overall, more than two-thirds of respondents demonstrated good knowledge of the major components of maternal and child health services available in Ilorin West LGA (Table 2).

Table 2: Level of Knowledge of Available MCH Services among Women of Reproductive Age in Ilorin West Local Government Area of Kwara State

S/N	VARIABLES	YES (%)	NO (%)
1	I know that antenatal care is part of the MCH services available in my area.	201(80.4)	49(19.6)
2	I am familiar with postnatal care services available at the primary health centres near me.	210(84.0)	40(16.0)
3	I know that immunization for children is part of the MCH services in Ilorin West.	197(78.8)	53(21.2)
4	I know that emergency maternal care services (e.g., for complications) are available in my area.	188(75.2)	62(24.8)

Research Question 2: What is the utilisation level of MCH services among women of reproductive age in Ilorin West Local Government Area of Kwara State?

Regarding maternal health services, 70.4% of respondents reported attending antenatal care, 64.4% utilised health-facility delivery services, and 62.4% attended postnatal check-ups. In addition, 76.8% reported seeking care at health facilities when experiencing pregnancy-related complications. These findings indicate a moderate to high utilisation of essential maternal health services among women of reproductive age in the study area (Table 3). Utilisation of child and preventive health services was generally high. 67.6% of respondents reported utilising child immunisation services, while 62.0% accessed family planning services. Growth monitoring (80.4%), nutritional services (80.4%), and participation in health education or counselling sessions (90.8%) recorded particularly high utilisation rates. Overall, utilisation of preventive and promotive maternal and child health services was higher than curative service use (Table 4).

Table 3: Utilisation of Antenatal, Delivery and Postnatal services among Women of Reproductive Age in Ilorin West Local Government Area of Kwara State

S/N	VARIABLES	YES (%)	NO (%)
1	Antenatal care.	175(70.4)	75(30.0)
2	Delivery services.	161(64.4)	89(35.6)
3	Postnatal check-ups.	156(62.4)	94(37.6)
4	Complications during pregnancy.	192(76.8)	58(23.2)

Table 4: Utilisation of Maternal and Child Health Services among Women of Reproductive Age in Ilorin West Local Government Area of Kwara State

S/N	VARIABLES	YES (%)	NO (%)
1	Child immunization services.	169(67.6)	81(32.4)
2	Family planning services.	155(62.0)	95(38.0)
3	Growth monitoring services.	201(80.4)	49(19.6)
4	Health education/ Counseling session.	227(90.8)	23(9.2)
5	Nutritional services.	201(80.4)	49(19.6)

Research Question 3: What are the factors affecting utilisation of MCH services among women of reproductive age in Ilorin West Local Government Area of Kwara State?

Several barriers to the utilisation of maternal and child health services were identified. Distance to health facilities affected 66.0% of respondents, while 75.6% reported transportation challenges. Financial barriers were also prominent, as 68.0% indicated that the cost of services and drugs limited utilisation. Health-system factors such as poor attitude of health workers (74.4%), unavailability of staff (74.4%), and long waiting times (73.2%) further discouraged service use. Sociocultural barriers were notable, with 79.6%

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reporting cultural or religious beliefs and 78.8% expressing a preference for traditional birth attendants. In addition, 74.8% cited lack of spousal or family support as a limiting factor. Overall, utilisation of maternal and child health services in Ilorin West LGA is influenced by financial, geographic, health-system, and socio-cultural factors (Table 5**).**

Table 5: Factors Affecting Utilisation of MCH Services among Women of Reproductive Age in Ilorin West Local Government Area of Kwara State

S/N	VARIABLES	YES (%)	NO (%)
1	The distance to the health facility makes it difficult to use MCH services.	165(66.0)	85(34.0)
2	Lack of transportation prevents me from accessing MCH services regularly.	189(75.6)	61(24.4)
3	The cost of services affects my ability to use MCH services.	170(68.0)	80(32.0)
4	The cost of drugs affects my ability to use MCH services	170(68.0)	80(32.0)
5	Health workers are often not available when visiting the facility.	186(74.4)	64(25.6)
6	Poor attitude of the health workers when visiting the facility.	186(74.4)	64(25.6)
7	Cultural or religious beliefs discourage the use of formal maternal care services.	199(79.6)	51(20.4)
8	I prefer traditional birth attendants to health workers due to personal beliefs.	197(78.8)	62(24.8)
9	Long waiting time at health centers discourages me from using the services.	183(73.2)	67(26.8)
10	Spouse or family members sometimes do not support my use of MCH services.	187(74.8)	63(25.2)

Discussion

This study examined the knowledge and utilisation of maternal and child health (MCH) services among women of reproductive age in Ilorin West Local Government Area of Kwara State and identified factors influencing service uptake. Overall, the findings indicate relatively high knowledge and moderate to high utilisation of key MCH services, alongside persistent structural, health-system, and socio-cultural barriers. The findings revealed a generally high level of awareness of essential MCH services. This suggests that public health education efforts and outreach programmes in Ilorin West LGA have been effective in disseminating information on available services. Similar levels of awareness have been reported in urban and semi-urban settings in Nigeria, where increased access to health information and community-based health education programmes have improved maternal knowledge (Fagbamigbe & Idemudia, 2018; Doctor et al., 2019). From a public health perspective, this high level of knowledge is a necessary foundation for service utilisation; however, knowledge alone does not automatically translate into optimal health-seeking behaviour.

Despite high awareness, utilisation of MCH services was moderate to high, with notable variation across service domains. Antenatal care attendance and health-facility delivery were relatively high, reflecting improved access to skilled care in the study area. This pattern aligns with findings from Adebowale et al. (2019) and Okoli et al. (2021), who reported higher utilisation of maternal and child health services in areas with functional primary healthcare systems. Utilisation of preventive and promotive services—such as immunisation, growth monitoring, nutrition services, and health education—was particularly high, suggesting that women may find these services more accessible, affordable, or socially acceptable than curative or emergency care. These findings highlight the importance of strengthening continuity of care across the maternal and child health continuum. Notwithstanding encouraging utilisation levels, several structural barriers significantly constrained optimal service use. Distance to health facilities, transportation difficulties, and financial costs were major challenges reported by respondents. These barriers have been widely documented in Nigeria and other low- and middle-income countries as key determinants of inequitable access to maternal health services (Okonofua et al., 2018; Kalu-Umeh et al., 2020). The persistence of these challenges in Ilorin West LGA underscores the need for targeted investments in primary healthcare infrastructure, transportation support, and financial risk-protection mechanisms such as fee exemptions or subsidies for maternal and child health services.

Health-system factors—including poor attitude of health workers, staff unavailability, and long waiting times—also emerged as important deterrents to service utilisation. These findings are consistent with

earlier studies showing that disrespectful or non-responsive care discourages women from using facility-based services even when awareness is high (Bohren et al., 2015; Akinyemi et al., 2018). From a health-system perspective, improving interpersonal quality of care and workforce availability is essential for sustaining utilisation gains. Socio-cultural factors played a substantial role in shaping utilisation patterns. Cultural or religious beliefs and preference for traditional birth attendants (TBAs) were reported by a large proportion of respondents, reflecting deeply rooted norms surrounding childbirth and maternal care. Similar observations have been reported by Oyekale (2017) and Okechukwu and Okafor (2020), who emphasized that maternal health interventions must be culturally sensitive to be effective. These findings suggest that community engagement strategies, involving religious and traditional leaders, are critical for addressing resistance to formal health services. In addition, lack of spousal or family support was identified as a significant barrier to service utilisation. This finding aligns with evidence that male partners often influence maternal health decisions through financial control and household authority (Ijadunola et al., 2019; Sacks et al., 2017). Promoting male involvement in maternal and child health programmes could therefore enhance service uptake and improve health outcomes.

Conclusion

The study on knowledge and utilisation of maternal and child health services among women of reproductive age in Ilorin West Local Government Area of Kwara State revealed that women reported utilisation of these services was moderate to high. This indicates progress in maternal health knowledge and behaviour in the study area. However, this study also showed that several challenges continue to hinder full utilisation. These include distance to facilities, transportation challenges, cost of services and drugs, poor attitude of health workers, and cultural or family influence. These factors collectively hinder optimal uptake of available MCH services. While there has been significant progress in promoting maternal and child health in Ilorin West, sustaining and improving utilisation will require addressing systemic, financial, and socio-cultural obstacles. A holistic approach that combines improved facility readiness, financial protection, community engagement, and respectful health care delivery is essential to ensure that high knowledge levels translate into better maternal and child health outcomes.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. Community leaders should engage in awareness campaigns to discourage harmful cultural practices and promote the benefits of facility-based care.
2. Health workers should be trained regularly on respectful maternity care and responsiveness to patients' needs to encourage continued utilisation of services.
3. Husbands and family members should provide emotional, financial, and logistical support to women in accessing maternal and child health services.
4. Government should improve access to health facilities by establishing more primary health centres in underserved communities to reduce distance and transportation challenges.

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