

ACCESSIBILITY AND UTILIZATION OF MODERN MEDICINE IN AJIOLO COMMUNITY IN KOGI EAST, KOGI STATE.

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Abstract

Maternal deaths due to poor health during pregnancy and childbirth constitute one of the challenges women face during child birth. In rural communities in Nigeria, the dangers are particularly more severe. Many factors such as lack of good healthcare, clear useful information about women's health complicate the problem. These combine to create poor health for women in developing countries and mostly rural areas. This study was conducted to explore access and utilization and their consequences on maternal mortality in a rural community in Nigeria using Ajiolo community in Kogi State, as a point of focus. Data were obtained from a cross section of mothers aged 15-49 years in Ajiolo. A cluster random sampling procedure was adopted to select 292 respondents for the study. The total number of questionnaire respondents was 280, while qualitative data were obtained from 12 respondents through in-depth interview. The data collected from the questionnaire were analyzed using the Statistical Package for the Social Sciences (SPSS V.20). The result showed that factors such as education, occupation, birth control knowledge, choice of health facility, utilization of modern facility and poverty had serious implications for maternal health. The study has both theoretical and practical significance. This study revealed that the factors affecting maternal mortality may form the basis of a policy response to the problems. The study recommends the promotion and creation of awareness about the rights of women, especially in rural communities, to shore up support for women to take certain decisions about their health and healthcare.

Keywords: Childbirth, Good Healthcare; Maternal deaths; Maternal Mortality; Rural Communities

Introduction

Maternal mortality is the death of a woman during child birth and within six months before delivery (Asogwa, Jemisenia, & Asogwa, 2022). According to World Health Organization (2015), maternal death as defined as “the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes”. Most countries in Sub-Saharan Africa, Nigeria are confronted with maternal health issues. Nigeria is among African countries with the highest level of maternal mortality (Sina and Adekeye, 2019; Asogwa et al., 2022; Mao et al., 2023).

The national mortality ratio is put at 545 deaths per 100, 000 live birth with almost all the deaths occurring in low income settings while most of them were preventable (WHO, 2018; Adesina and Adegboye, 2020; Shobiye et al., 2022 and Asogwa, Jemisenia&Asogwa, 2022). The World Health Organization (WHO, 2017), apportioned 19% of maternal deaths to Nigeria. Maternal mortality is on the increase in Nigeria due to poor health management, poverty, unemployment, poor access to health facilities, high level of illiteracy, etc. (Adesina and Adegboye, 2020). Despite the fact that antenatal care and healthcare are inaccessible, 50 percent of birth is attended to by qualified and skilled birth attendants. In Nigeria, majority of women give birth at home under the supervision of a traditional birth attendant (Lowe, Chan, & Huang, 2016; Sina and Adekeye, 2019). The high rate of maternal mortality in rural communities in Nigeria can be attributed to low usage of maternal health care services while only 58% of Nigerian women received antenatal care services (Eweka, 2021).

Many studies carried out had revealed a number of cases of maternal mortality. These include unavailability of emergency obstetric care, sub-standard quality of antenatal care, eclampsia, sepsis, hemorrhage related conditions such as hypertension, anemia and endemic diseases such as malaria during pregnancy (Lowe et al., 2016; Meh, Thind, Ryan, and Terry, 2019). The unavailability of skilled birth attendants could also be linked to religious beliefs and customs, insufficient time to travel, lack of transportation, lack of confidence in health care facilities, financial cost of health care, domestic work load and traditional practices that prefer birthing at home and under the supervision of a traditional birth attendant (Lowe et al., 2016; Eweka, 2021; Shobiye et al., 2022). Another review also showed high maternal age, pathological causes, household wealth, education, corruption, poor gender relationship and urban residence as factors that predict the use of maternal services (Sina and Adekeye, 2019; Adesina and Adeoye, 2020).

Maternal and child mortality are closely linked to poverty, high illiteracy, ignorance (Mao, 2023). Malnutrition is also an underlying contributor in over half of these deaths. Nigeria alone accounts for 14% or more of the world’s maternal and under-5 mortality rates (Tobore, 2012; Sageer et al., 2019). Factors associated with maternal mortality rate problems include poor socio-economic development, inadequate human resources, delay in seeking health, transportation problems, weak health care system and low socio-cultural barriers to care utilization (Sageer et al., 2019; Shobiye et al., 2022).

About two decades or more into the war against maternal deaths, Nigeria still bears the burden of the worst maternal mortality statistics in the world. Nigeria with a maternal mortality ratio of 814 per 100,000 live births is second only to India in the global estimates of maternal mortality (WHO, 2015). Nigeria does not appear to be on track in achieving the SDG target of reducing child mortality in 2030. In fact, mortality ratio has increased from 50.1% per 1000

live births to 59.9% per 1000 in 2017 (Shobiye et al., 2022). Therefore, sustainable solutions must urgently be put in place (Meh et al., 2019; Mao, 2023). According to the UNICEF Executive Director Anthony Lake (2015), Nigeria continues to record unacceptably high maternal, newborn and child mortality rates. Under-five mortality rates in Nigeria are estimated at 191 per 1000 live births. This shows that over one million children die in Nigeria compared to any other country in Africa from preventable diseases (Ogunjimi et al, 2012). Kano State, for instance, has maternal mortality ratio of 1600 deaths per 1000 live births while Zamfara Sate in Northwest Nigeria, had 1049 deaths per 1000 live births (Meh, et al., 2019). An estimated 52,900 Nigerian women die every year from pregnancy and child birth related complications out of the total global maternal death figure of 529,000 (Ogunjimi et al., 2012; Meh et al., 2019). In Nigeria, a woman's chances of death from pregnancy and childbirth is 1 in 16, compared with 1 in 35 in the Gambia and 1 in 2800 in developed countries (Sina et al., 2019; Adesina and Adegboye, 2020). According to the UN IGME report in 2018, globally, from the first month the child arrives into the world, it faces the highest risk of dying with an average of 18 deaths per 1,000 live births (2019).

Like maternal mortality, the neonatal mortality rates in Nigeria have wide geographical variations. The North-east and Northwest zones of the country have the highest rates while the South-west and South-east have the lowest rates (Shettima, 2007; Ogunjimi et al., 2012). Unfortunately, most of the causes of these deaths are preventable or treatable.

In Northern Nigeria, most women are not proud to be expectant mothers because of high maternal mortality rates. Twenty-three percent of women between 15 and 19 years are already mothers or are pregnant with their first child. Twenty (20) per 1000 children die before the age of one month. On the other hand, 35 per 1000 die before their first birthday (Shettima, 2007; Meh et al., 2019; Mao et al., 2023). Maternal mortality issues are particularly acute in Northern Nigeria. This is largely attributed to the Islamic culture that perceives the social needs of women's reproductive healthcare capacities to be under the strict control of men. The practice of purdah, illiteracy and early marriage contribute to maternal morbidity in the north than in the south (Shettima, 2007; Meh et al., 2019).

The Maternal and Child Survival Program in Kogi State being implemented by Jhpeigo in corroboration with the Kogi State Ministry of Health and USAID is intended to strategize and improve maternal, newborn, adolescent and child health in the Kogi State. In 2005, 2006 and 2007, Kogi State recorded maternal deaths of 62, 67 and 72 respectively (Achme and Akogu, 2008). The choice of Ajiolo is to examine accessibility and utilization of modern medicine by women in a typical rural community.

Statement of the Problem

Many women suffer and die needlessly due to lack of access to good health care and useful information about their health. Maternal mortality is one of the highest health challenges facing Nigerian women. The attributes of maternal mortality include religion, culture, socio-economic status women and place of origin which can influence their attitude towards health utilization. Dekina Local Government is one of the largest local governments in Nigeria. It is faced with high level of poverty, unemployment, insecurity and early marriages and child bearing. There are incidences of schools drop outs and high illiteracy, impact of culture, religion, social and economic status of women (Shabani et al., 2018).

There are also women who die prematurely due to lack of information while others are parading themselves with iatrogenic trauma of complications from abortion, sex related issues, unwanted pregnancies, among others (Sule et al., 2015). Sageer et al., 2019 stated that 75% of maternal death in Africa are as a result of obstetric complications such as hemorrhage, obstructed labour, infections, poor health services, health workers shortage toxemia and unsafe abortions (Lowe et al., 2016; Meh et al., 2019). The estimate of mmaternal mortality rate in Nigeria in 2015 was 856 and in 2020, it reduced to 512 (Adegoke, Mbonigaba and George 2022). In Ajiolo community, there is shortage of medical practitioners, medical facilities and dearth of relevant health information among others. This is further complicated by the distance from Ajiolo to Anyigba, which is between 5 and 6 kilometers. This makes it difficult for many pregnant women to access treatment, attend to complications and enjoy childbirth services. This study interrogated issues related to accessibility and utilization of modern medicine in Ajiolo community, in Dekina Local Government Area of Kogi State.

Methodology

Research Design and Area of Study

This study is premised on the cross-sectional survey technique. It was conducted in Ajiolo, Kogi State, Nigeria. Ajiolo community is made up of Akpawulu, Ofealemu, Ojaji, Okoakwu, Ajabokoje and Ajukpome villages. The target population is all women of childbearing age (women aged 15-49 years) whether married or unmarried. Mothers in this context are women who had given birth to at least one child whether married or unmarried. The estimated population of women of childbearing age in Ajiolo community according to records at the Dekina LGA Planning Unit (2009), based on the 2006 census was 4387. Given the size of the population, it was not convenient to study the entire population. As such, a proportion of the study population was selected through purposive sampling.

Questionnaire was used to elicit data from 280 respondents, while non-probability convenient sampling was also used to select 12 respondents for the in-depth interview (IDI) session. Thus, the total sample size for the study is 292. The sampling procedure for the in-depth interview (IDI) was 2 from each of the 6 selected villages.

Data collection procedures

Questionnaire was the major instrument used for data collection. The questionnaire was a structured schedule and a quantitative instrument most suitable for obtaining data from a representative sample of people used to describe or analyze a large population. The questionnaire consists of two sections: A (demographic characteristics of the respondents) and B (which focused on the specific issues of the study). However, in-depth interview guide (IDI) complimented the questionnaire.

Three research assistants from the community helped in the administration of the questionnaire. These research assistants were conversant with the culture and language of the study areas. They were trained by the researcher on how translate data from the local Igala language to English or from English to the local language, as the case may be. Vernacular was used for the illiterate respondents.

For the In-Depth Interview (IDI), people who had at least secondary school education and adequate knowledge of the community were purposively selected to ensure that they can

express their views. In this case, the researcher conducted the interviews since she equally understands the local language.

Techniques of Data Analysis

Data from the questionnaire were analyzed using the Statistical Package for the Social Sciences (SPSS V. 20). The Chi-square (χ^2) tool was used to test the hypotheses.

Results and Discussion

Two hundred and eighty copies of the questionnaire were administered. Two hundred and seventy-one were duly returned with a response rate of (96.9%). The data were divided into two sections: socio demographic characteristics of respondents and the major issues of the study.

The Socio Demographic Characteristics of the Respondents includes:

Table 1: Distribution of Respondents by Education Attainment.

Education Attainment	F	%
No Formal education	4	1.5
FSLC	59	21.8
WASCE/SSCE/GCE	117	43.2
NCE/ND	51	18.8
B.Sc/HND	27	10.0
M.Sc. /PhD	13	4.7
Total	271	100.0
Occupation		
Unemployment	35	12.9
Student	15	5.5
Employed	9	3.3
Farming	53	19.6
Civil servant	87	32.1
Business /Trading	72	26.6
Artisan	-	-
Other	-	-
Total	271	100.0
Level of Education		
Very high	23	8.5
High	80	29.5
Medium	116	42.8
Low	40	14.8
Very low	129	4.4
Total	271	100.0

Source: Field survey: 2022

This was done to determine the highest level of education attained by the respondents. This focuses on the primary economic activities of the respondents. That is, the income generating activities that take the highest proportion of the respondents' active time in a day (Table 1).

Distribution by occupation

This was done to determine the highest level of education attained by the respondents. This focuses on the primary economic activities of the respondents. That is, the income generating activities that take the highest proportion of the respondents' active time in a day (Table 1). The modal occupation for respondents was business/trading 72 (26.6%) in Ajiolo. The civil servants' population was 87 (32.1%) of the sampled population. Other occupational groupings constituted varying proportions of the sample population. Among them were farmers 53 (19.6%) and employed 9 (3.3%). Unemployed and students had 35 (12.9%) and 15 (5.5%) in Ajiolo. The foregoing confirms the earlier assertion that education is a predictor of other variables.

Both education and occupation of the average respondents were low. Only 51(18.8%) respondents and 27(10.0%) had OND and B.Sc/HND. Based on their occupation, 53(19.6%) were farmers, 87(32.1%), were civil servants and 72 (26.6%) were into business and trading. In Kogi State, most of the civil servants were barely paid and poorly too, while farming and trading/business were at a low level. There was therefore, both low education level and poverty (Tables 1) within the study area.

The respondents were asked to describe women's level of illiteracy in the community (Table 1). In Ajiolo community, 80 (29.5%) and 23 (8.5%) of the respondents described women's level of education as high and very high respectively (Table 1). This factor has serious health implications for women because it is the chief determinant of every other factor. According to Adesina and Adegboye, 2020; Olamijulo et al., 2022, accessibility and utilization of modern medicine in rural area were on the decline in Nigeria due to higher illiteracy level, ignorance, poverty and unemployment. Although, 23(8.5%) and 80(29.5%) respondents described the level of education as very high and high (Table 1), a greater proportion of the educated had minimum level (42.8%) of education which also affected their accessibility and utilization of modern medicine, the cost and availability of health facilities. This assertion is in line with those of Asogwa et al., 2022 which identified poverty, level of education, cost and availability of facilities as factors that hinder women from accessing and utilizing modern medicine.

Table 2: Respondents' Opinion on Knowledge and use of Birth Control

Knowledge and use of Birth control	Knowledge		Use	
	F	%	F	%
Yes	227	83.8	138	50.9
No	44	16.2	133	49.1
Total	271	100.0	271	100.0

Source: Field Survey, 2022

In this community, 227 (83.8%) indicated knowledge of birth control but only 138 (50.9%) use birth control while 44 (16.2%) indicated no knowledge of birth control but 133 (49.1%) use birth control mechanisms. Although there was a high knowledge of birth control in the community, only 50.9% of women the community was using it. This low usage of birth control measures in spite of the can be attributed to inadequate modern health care services, poor use of the available ones, high cost and non-availability and accessibility (Eweka, 2021; Mao et al., 2023)

Test of Hypotheses

The purpose of this section is to establish the existence of a statistical relationship between the identified dependent and independent variables that had been stated in the hypotheses.

Hypothesis I: Women with higher levels of education are more likely to be aware of their health needs than women with lower level of education.

Table 3: Respondents’ Choice of Health Facility by level of Education

Educational attainment	Choice of Health Facility							
	Modern		Traditional		Non-Medical (faith)		Total	
	f	%	f	%	f	%	f	%
Low	151	39.7	53	60.2	31	43.7	235	43.6
Medium	131	34.5	24	27.3	31	43.7	186	34.5
High	98	25.8	11	12.5	9	12.7	118	21.9
Total	380	100.0	88	100.0	71	100.0	539	100.0

$\chi^2 = 18.877, df = 2, p \text{ value} = .001$

Table 3 showed that 235 (43.6%) of the number of respondents had low level of education. Among respondents with the low level of education, 39.7% consult modern health facilities, 60.2% go for traditional health facilities while 43.7% consult non-medical professionals like Pastors and Priests. As the level of education increased the proportion of the respondents that patronize traditional health facilities were 24 (27.3%) and 11(12.5%), for medium and high educational attainment respectively (table 3). Although, both low and medium level of education recorded equal number of respondents, 31(43.7%) for those who patronize non-medical facilities, there was also a significant reduction in the number of respondents as the level of education became higher. However, of 118 (21.9%) respondents that had high educational attainment, 98 (25.8%) respondents consult modern health facilities, while 11(12.5%) and 9(12.7%) consult traditional and non-medical facilities.

These findings amplified the assertion that the higher the level of education, the higher the likelihood to consult modern health facilities among Ajiolo women in the community. These observations were in agreement with (Meh et al., 2019; Shobiye et al., 2022) who revealed that factors such as level of education, age and social autonomy were the major determinants of the choice of health facility.

Hypothesis II

Hypothesis 2 states that women with higher level of occupation are more likely to utilize modern medicine than women with lower level of occupation. To test this hypothesis, a table

showing the cross tabulation of item 5 and one of the items on number 8 was constructed. Item 5 was raised in the questionnaire to determine the occupational level of a respondent while one of the items in no 8 was raised to determine the accessibility of health care services in Ajiolo. It is believed that the ability to access health care services will be dependent on occupational level (Table 3).

Table 4: Distribution by type of Occupation and Utilization of Modern Medicine.

Type of Occupation	Utilization of Modern Medicine									
	Strongly agree		Agree		Strongly disagree		Disagree		Total	
	F	%	F	%	F	%	F	%	F	%
Unemployed	8	2.1	0	.0	0	.0	0	.0	8	1.5
Student	47	12.2	0	.0	0	.0	0	.0	47	8.7
Apprentice	99	25.8	32	27.8	0	.0	0	.0	131	53.6
Farming	60	15.6	30	26.1	5	50.0	0	.0	95	17.6
Civil Servants	77	20.1	0	.0	0	.0	5	16.7	82	15.2
Business/trading	81	21.1	32	27.8	5	50.0	8	27.7	126	23.4
Artisan	8	2.1	21	18.3	21	.0	17	56.7	46	8.5
Other	4	1.0	0	.0	0	.0	0	.0	4	.7
Total	2384	100.0	115	100.0	10	100.0	30	100.0	539	100.0

χ^2 value = 184.979, df = 7, p value = 0.00

Table 4 showed that with the exception of 5 (50.0%) proportion of respondents whose occupations were farming and business/trading, no other occupational groupings indicated strongly disagree that the level of occupation determines utilization of modern medicine. However, 17 (56.7%) of those who were artisans indicated disagreement to this fact. This was followed by 8 (27.7%) respondents who had business/trading as their occupation and 5 (16.7%) of respondents who were civil servants. On the other hand, overwhelming higher proportion of those who agreed/strongly agreed were recorded for apprentice 131(53.6%), business/trading 113(71.1%), farmers 90(41.1%) and students 47(12.2%) compared to those who strongly disagree and agree. Artisans and the unemployed recorded equal number of respondents of 8 (2.1%) each, while others like house wife recorded 4 (1.0%) numbers of respondents. From the table 4, there was a general positive relationship between occupation and utilization of modern medicine.

For a justifiable conclusion, we need to establish the statistical significance of the observed relationships. To this end, it was hypothesized that “women with higher level of occupation are more likely to utilize modern medicine than women with lower level of occupation”. With the calculated χ^2 exceeding the critical χ^2 value at 0.00 level of significant, the null hypothesis stands rejected. The conclusion therefore is that there is a significant relationship between the level of occupation and utilization of modern medicine. Table 4 in this study is in agreement with Igyuse et al., 2020; Asogwa et al., 2022, where they showed that the greatest influencer of accessibility and utilization was occupation of the woman. Some of these deaths could be as a result of witchcraft activities from our environments. A participant commented thus:

Level of education has nothing to do with maternal mortality, because her great grandparents were not educated but were able to give birth without complications. When a woman dies during childbirth it means that either she is too careless or something went wrong with her (p, 36years).

In the same vein, another participant added that:

Maternal mortality cannot be prevented by education, but if a woman is engaged in doing business, she can use her resources or money to prevent maternal mortality deaths (participant, 29years).

Discussion

The results from the IDI indicate that most of the women were not aware of the causes of maternal mortality in the study area. According to some of the participants, occupation and education were responsible when it comes to the issues of maternal mortality. Other factors such as cultural, religion, poverty, lack of information was identified. From the demographic distribution (Table 1), the research revealed that, no formal education was 4 (1.5%). This finding is contrary to the findings in the current study but in tandem with the work of Azuh, Akanbi, Adekola, Adeloje, and Amodu, (2017; Adeyanju, 2017. This in line with Xu, Peng, Ahuru, Anser, Osabohien, & Aziz's (2022) study where majority of the respondents 45.2% and 50.3% revealed low level of education, low level of maternal education and unemployment due cultural negative beliefs and values toward girl-child education (Nwankwo, 2014).

Contrary to this study, Adediyan and Aghomo-omon (2021), argued that educational level determines the healthcare utilization of an individual. They further argued that an educated woman is more likely to carry out some of the regulated exercises, have access to and be willing to get preventive medical care like mammograms, flu vaccines, and colonoscopies among others. This corroborates Nwankwo's (2014), study which argued that there is a need for women empowerment economically, socially, and politically as this will enable them to discharge those responsibilities that are expected of them. In another study, the employment status of the respondents in Azuh et al., (2017) revealed that those who were not working and those who were unskilled indicated 22.5%. Independence to freely decide on when and where to seek medical attention without approval from anybody and economic empowerment are key determinants. This might be related to the fact that education increases a woman's world view, creates opportunities for better paying jobs, ability to defend her reproductive health rights and overcome age long negative cultural stereotyping of submissiveness to husband/partner regarding her reproductive health desires and adopt behaviors that enhance her health and wellbeing.

Conclusion

Maternal mortality is a serious health challenge to both the individual and the community at large. It threatens the life of mothers in Nigeria, including those of Ajiolo community. This study identified low level of education, unemployment as factors that exacerbate maternal mortality in Nigeria.

Recommendations

1. For meaningful changes in the health status of women in Ajiolo community, greater opportunities for education and employment must be provided for the women folk.
2. It is recommended that more educational opportunities be provided as well as access to credit facilities for businesses and farming to reduce poverty and increase access to healthcare facilities.
3. Government should place more emphasis on girl-child education.

4. Women empowerment is highly recommended as this will enable them to take up their responsibilities both as mothers and contributors to social and economic growth.

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