

**DETERMINANTS OF THE UTILISATION OF MATERNAL HEALTH IN KALGO
LOCAL GOVERNMENT AREA (LGA) OF KEBBI STATE, NIGERIA**

Kabiru Ibrahim Yankuzo* and Tukur Abujalal Muhammad Baba
Department of Sociology, Federal University Birnin Kebbi, Nigeria

*Correspondence: degerson@st.ug.edu.gh

Abstract

The utilisation of maternal health services plays a significant role in preventing maternal morbidity and mortality. This study examined the determinants of utilisation of maternal health services in Kalgo Local Government Area (LGA) of Kebbi State, Nigeria. Mixed methods were used for the study. A total of 700 mothers were surveyed using a semi-structured questionnaire and key informants were interviewed. Descriptive statistics were employed for analysis of the quantitative data using Statistical Package of Social Sciences (SPSS) while the qualitative data were analysed thematically and imported into ATLAS ti8 software. The study revealed that coverage of women who received 2 or more ant-tetanus injections, those with 4+ antenatal clinic visits, those who delivered at health facilities and those who received post-natal check-ups during their last pregnancies was very low. Economic and cultural factors were identified as factors responsible for the low utilisation. The study suggested that the socio-cultural and economic roots of the problems in the area must be addressed by the government at all levels; as well non-governmental organisations can help too.

Keywords: Antenatal care, maternal mortality, maternal health, cultural factors, economic factors

Introduction

The development of a nation is often evaluated based on its maternal and child mortality ratios. Maternal health has long been recognized as a critical component of healthcare systems. Over the years, many governments have been investing in the health sector in general and maternal and child health in particular. It is apparent in a joint publication by WHO, UNICEF, UNFPA, World Bank Group, and the United Nations Population Division (2023), that there has been a global decline in Maternal Mortality Ratio (MMR) by 34.3% over the last 20 years, from 339 maternal deaths per 100,000 live births in 2000 to an estimated 223 maternal deaths per 100,000 live births in 2020 with the Average Annual Rate of Reduction (AARR) of 2.1%.

According to WHO (2018), approximately 99% of the global maternal deaths in 2015 were recorded in developing regions, with Sub-Saharan Africa alone accounting for roughly 66% followed by Southern Asia. Recent data indicate that 70% of global maternal deaths in 2020 occurred in Sub-Saharan Africa alone, followed by Central and Southern Asia (17%). Nigeria had the highest number of maternal deaths estimated to

have accounted for over a quarter (28.5%) of maternal deaths worldwide in 2020 (WHO, UNICEF, UNFPA, World Bank Group, and the United Nations Population Division, 2023).

Despite efforts by international organisations/agencies such as the United Nations (UN), World Health Organization (WHO), United Nations International Children Emergencies Fund (UNICEF) etc. to combat morbidity and mortality among pregnant women, especially in developing countries, Nigeria continues to have one of the highest maternal mortality ratios in the world. Estimates by the African Population and Health Research Centre (APHRC, 2017) revealed that Nigerian women and girls faced a lifetime risk of maternal death of 1 in 13 compared to 1 in 31 for sub-Saharan Africa as a whole. The estimate further revealed that Nigeria's estimated annual 40,000 maternal deaths accounted for about 14% of the global deaths, making the country the second largest contributor to maternal mortality worldwide, after India. According to the report, one Nigerian woman died every 13 minutes from preventable causes related to pregnancy and childbirth. The most recent 2018

Nigeria Demographic and Health Survey (NDHS) revealed one in 34 women died from maternal causes and the maternal mortality ratio for the 7 years before the survey was estimated at 512 maternal deaths per 100,000 live births.

Most of the deaths and health consequences were preventable through effective and efficient utilisation of maternal health services. In most countries of the world, antenatal care (ANC), childbirth in health facilities, and postnatal check-ups are the most cost-effective measures for preventing maternal morbidity and mortality. However, the rate at which these maternal health facilities are being utilised in Nigeria, especially in the northern parts of the country is very low compared to the South. According to NDHS (2018) report, while most states especially the southern states had high coverage above 80%, Kebbi State had only 25.9% of women with 4+ antenatal visits during pregnancy of the most recent birth, 14.7% received antenatal care from skilled provider, 52.9% took iron tablets or syrup, 22.4% received two or more injections, 7.4% delivered at a health facility, and only 17.6 received postnatal check during the first two days after birth in the State.

A low level of literacy among women was one of the characteristics of Kebbi State. According to the National Bureau of Statistics (2018) report, only 38% of women were literate in the North-west geopolitical zone of the country. Kebbi State is located in this zone which means that many women in the State were illiterate and thereby found it difficult to read or comprehend simple health instructions very vital to their health including utilisation of ANC services. The State was also characterised by a high level of poverty as the majority of its people live below the poverty line. This was buttressed in a Nigeria Living Standard Survey (NLSS, 2020) report, which stated that Kebbi State was one of the top ten poorest states in the country. The poverty situation remained a social problem that negatively affected not only seeking medical care but also was an obstacle to meeting other human physiological needs. Poverty discouraged families from adequately utilising modern maternal health services, forcing mothers to resort to using alternative medical facilities. The low utilisation of maternal health services in northern Nigeria in general and Kebbi State in particular was associated with high maternal morbidity and mortality (PRRIN-MNCH, 2012).

If the situation is allowed to continue, women will continue to die from pregnancy-related causes in Kebbi State and above all would result in a total collapse of its already fragile economy. Against this backdrop, this study investigated the level of patronage of ANC services, as well as the cultural and economic factors that affected the utilisation of maternal health facilities

in Kalgo Local Government Areas (LGA) of Kebbi State, Nigeria.

Literature Review

Many empirical studies have been conducted on the utilization of ANC in Nigerian urban and rural areas but to the best of our knowledge, a study of this kind has not been carried out in Kalgo LGA of Kebbi State. The NDHS (2008), (2013) and (2018) focused only on the analysis of the influence of the socio-economic status of respondents on the utilisation of ANC. Although the studies reported variations among the Nigeria geopolitical zones and states in full ANC coverage, they did not adequately investigate the socio-cultural forces behind the variations which this study tried to address.

Most of the studies carried out in Nigeria on maternal and child health focused on the effect of educational and economic factors on health. For example, Okafor (1983) measured the frequency of hospital visits in old Bendel State Nigeria as well as the attitude towards modern and traditional medicine. Her data showed that over 60% of non-literate respondents and those with primary education visited the hospital only once during the six-month study period. In contrast, over 50% of the more educated segments of the population visited hospitals more than three times over the same period. Other studies found a positive and significant association between education and utilisation of preventive healthcare services for mothers and children (Navaneetham & Dharmalingam, 2002; Muhammad-Baba and Yankuzo, 2012; Onasoga *et al.*, 2012; Yarzever & Said, 2013; Desalew *et al.*, 2014; Ononokpono *et al.*, 2014 & Akowuah *et al.*, 2018).

A more recent study conducted by Adgoy (2018) using narrative literature review design, recognised different social determinants which affect women's health negatively in African countries. These included health care provider attitude, economic inequity, transportation problems, insecurity, marital status and age, education, gender equity, material and human resources, socio-cultural factors and health care system delivery. Although findings of the study seem plausible, the methodology was very weak as it mainly relied on content analysis. This study was designed to objectively gather information directly from mothers to gain a fuller understanding of the phenomenon in question. However, most of the studies that were reviewed emphasised education, income and occupation, and proper attention was not given to the influence of religion on the utilisation of health facilities. A study of this nature is imperative as it helps to bridge the gap or establish a balance.

In sub-Saharan Africa in general and Nigeria in particular, low rates of utilisation of maternal health services have been linked to women's socioeconomic

dependency on men, and gender inequality arising from religious and cultural influences. Ogolla (2015) argued that religious organisations and groups provide key public health functions in many parts of the world, including but not limited to the provision of good nutrition, HIV treatment and counselling services, clean drinking water, childhood immunisations, and prenatal and neonatal health screening services. The foregoing shows that policymakers must look at religion if global health targets, particularly those seeking improvement in maternal health must be achieved in developing countries including Nigeria. Although individuals or religious groups may sometimes take extreme positions on some health issues, usually based on misconceptions or religious doctrines that are sometimes poorly understood.

Previous studies in northern Nigeria explained faith-related factors that served as barriers to Muslim women's use of maternal health services: having to obtain permission from significant others such as husbands, parents, guardians, cultural or religious leaders and unwillingness to be attended to by a male healthcare provider (Morphy and Baba, 1981; Doctor *et al.*, 2012; Fagbamigbe & Idemudia, 2015). A study conducted by Solanke *et al.* (2015) on religion as a social determinant of maternal health care service utilisation in Nigeria found that religious affiliation has a similar significant influence on the utilisation of maternal health care services when compared to the selected social determinants of health analysed in the study. These findings have been confirmed by a study carried out at Ife Central Local Government Area in Osun State by Onasoga *et al.* (2012) which showed a significant association between knowledge, distance, marital status, religion and level of education of respondents under study and utilisation of ANC services.

Methodology

Study Setting

The study was carried out in Kalgo Local Government Area of Kebbi State, Nigeria. Kalgo LGA with a landmass of 502.75 square kilometres was created in 1996 out of Bunza LGA. Based on the 2006 population census, Kalgo LGA had a population of 84,928 representing 2.6% of the state's population (Shehu, 2014), and the LGA is mostly inhabited by Hausa, Fulani, Dakarkari, Zabarmawa, Buzaye, most of whom are predominantly Muslims. The LGA consists of ten political wards namely Kalgo, Badariya/Magarza, Dangoma/Gayi, Zugguru, Diggi, Wurogaure, Mutubare, Etene, Kuka, and Nyalwa.

Population of the Study

The population of this study was categorised into three. First, the entire women who had children under five years old in selected areas of the LGA. According to Kalgo Local Government Health Department (2019), 13,0947 constitute the total population of women of childbearing age in the LGA and therefore was considered as the total population for the study. Second, household heads or fathers in the selected areas and lastly, the key informant people in the area which included religious and traditional leaders as well as the health service officials.

Sample Size and Sampling Procedures

To determine the sample size, the formula ($S = \frac{X^2 NP (1-P)}{d^2 (N-1) + X^2 P (1-P)}$) developed by Kreiche & Morgan (1970) was used. Based on the application of the formula, the sample size was 383. However, due to a lack of accurate data on the population of each political ward centre and to cover many women of childbearing age, 70 questionnaires were administered in each of the ten political ward headquarters in the LGA, giving a sample size of 700 respondents. For the qualitative data, eighteen informants comprising household heads, traditional rulers and health officials were interviewed. The interviews were unstructured using a convenient sampling technique (see Table I). The questionnaire and KII guide were the instruments used for the collection of the quantitative and the qualitative data, respectively.

Table I: Socio-demographic Characteristics of the Key Informants Interviewed

Informant	Code	Age	Sex	Qualification	Position
Informant 1	R1	27	Male	SSCE	Household head
Informant 2	R2	61	Male	SSCE	Traditional Ruler
Informant 3	R3	62	Male	No formal education	Household head
Informant 4	R4	55	Male	HIS	Religious leader
Informant 5	R5	52	Male	No formal education	Household head
Informant 6	R6	30	Male	ND	Health personnel
Informant 7	R7	55	Male	BSc	Household head
Informant 8	R8	56	Male	NCE	Household head
Informant 9	R9	50	Male	No formal education	Household head
Informant 10	R10	60	Male	No formal education	Household head
Informant 11	R11	50	Male	NCE	Traditional ruler
Informant 12	R12	60	Male	BSc	Traditional ruler
Informant 13	R13	55	Male	ND	Health personnel
Informant 14	R14	60	Male	NCE	Religious leader
Informant 15	R15	42	Male	No formal education	Household head
Informant 16	R16	31	Male	NCE	Household head
Informant 17	R17	61	Male	No formal education	Household head
Informant 18	R18	70	Male	No formal education	Household head

Since Kalgo LGA consists of ten wards, the research was restricted to only ward centres. Multi-stage sampling techniques were employed to select the respondents. At stage one, the whole LGA was divided into ten (10) clusters/wards: Kalgo, Badariya/Magarza, Dangoma/Gayi, Zugguru, Diggi, Wurogaure, Mutubare, Etene, Kuka, and Nayalwa. Within each of the ten wards, only the ward centre was selected. In the second stage, enumeration areas were selected. To avoid the selection of biased samples and achieve greater precision, a systematic sampling method was adopted to administer the questionnaires to the target population. To use the systematic sampling method, the sample was selected based on one at every interval of two houses, i.e. every 2nd house was selected in all the villages except Kalgo town where every third house

was selected due to its relatively larger size. Where the target mother was not found, the next house was adopted and where there was more than one target mother, a free hand was given to the members of the household to select among themselves who would represent them, or balloting was used to select.

Methods of Data Analysis

Descriptive statistics using the Statistical Package of Social Sciences (SPSS) was used for the analysis of the quantitative data, while the qualitative data were carefully transcribed and analysed thematically using ATLAS.ti and presented to complement the quantitative data for an adequate understanding of the determinants of utilisation of maternal health services in the study area.

Results

Table IIa: Socio-economic Characteristics of the Respondents for quantitative

Characteristics	Frequency	Percentage
Age(Years)		
less than 18 years	55	7.9
18-29 years	348	49.7
30-39 years	230	32.9
40-49 years	67	9.6
Total	700	100.0
Marital status		
Single	3	0.4
Married	587	83.9
Divorced	55	7.8
Separated	14	2.0
Widowed	41	5.9
Total	700	100.0

Table IIb: Socio-economic Characteristics of the Respondents for quantitative data (continued)

Characteristics	Frequency	Percentage
Religious affiliation		
Islam	695	99.3
Christianity	5	.7
Total	700	100.0
Ethnic background		
Hausa	481	68.7
Yoruba	3	.4
Igbo	9	1.3
Fulani	162	23.1
Dakarkari	8	1.1
Zabarmawa	30	4.3
Buzaye	7	1
Total	700	100.0
Educational qualification		
No formal education	306	43.7
Literate in local language or religious texts	187	26.7
Primary certificate	108	15.4
SSCE	74	10.6
NCE/ND or equivalent	19	2.7
BSC/HND	6	.9
Total	700	100.0
Occupation		
Home making	230	32.9
Food selling	317	45.3
Farming	22	3.1
Primary/secondary school teaching	26	3.7
Art	73	10.4
Traditional medicine woman	20	2.9
Nursing/midwifery	12	1.7
Total	700	100.0
Income		
Less than N5000	562	80.3
N5,001-15000	98	14.0
N15,001-25,000	19	2.7
N25,001-35,000	11	1.6
N35,001-45,000	2	.3
more than 45,000	8	1.1

Table II presents the socio-demographic characteristics of the respondents for the quantitative data. It started with age, a useful demographic parameter and has significant implications on the outcome of any study. The majority of the respondents (82.6%) were mothers aged 18 – 39, which indicates that women within this age bracket are more likely to give birth compared to those aged 40 – 49. This finding is not surprising because women aged 18 to 39 years are more productive and sexually active compared to those above 40 years. The data also indicate the incidence of girl early marriage in the area as 7.9% of mothers below 18 years were bearing children.

Marriage is a very important avenue for having children in many societies. In this study, an overwhelming majority (83.9%) of the respondents were married, while 7.8% were divorced which indicated a low rate of marital breakdown in the study

area. On the religion of the respondents, typical of northern Nigerian communities, more than 99% of the respondents were Muslims, and only less than one per cent were Christians. The reason was that only a few Christians were found in the area and no representation from the adherents of Traditional African Religion in the study population, showing that either their number was insignificant or not found in the LGA. With regards to ethnic background, inhabitants of the LGA comprised of Hausa, Fulani, Dakarkari, Buzaye, etc. However, also typical of this segment of northern Nigeria, an overwhelming majority of respondents (90%) were Hausa and Fulani.

On the level of education, the majority of the respondents, constituting 70.4% had no formal education, depicting a very low level of literacy among women in the LGA. Of the 29.6% of the respondents with formal education, only 3.6% had gone beyond

secondary school indicating that girls were more likely to get married after completion of secondary education. On the occupational status, the majority of the respondents were not employed in the formal sector but engaged in food selling and domestic duties. This was corroborated by their literacy rate where the majority had no formal qualification that qualified them to get employed in a formal sector.

High income enables an individual to adequately meet basic needs including health resources. The income of the respondents was very low as the majority

(80.3%) earned less than N5,000 per month as their aggregate income from all sources. Low income meant having less of good things in life including education, shelter, and access to health facilities.

Five sub-themes were developed from the analysis of the qualitative data which included inadequate health personnel, religion, education, poverty and financial resources as factors affecting the utilisation of maternal health in Kalgo LGA of Kebbi State as indicated in Figure I below. The qualitative data were presented in this section complementing the quantitative data.

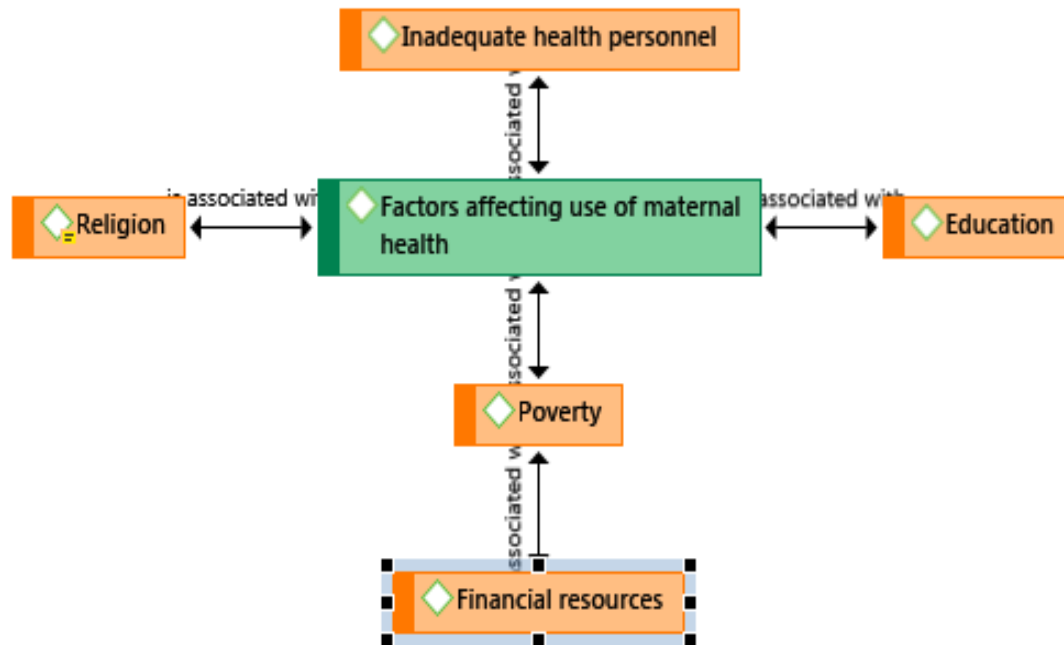


Figure 1: Concept Map of Factors that affected Utilisation of Maternal Health

Utilisation of Maternal Health Services

Table III: Characteristics of the Respondents on Utilisation of ANC Facilities during last Pregnancy

Characteristics	Frequency	Percentage (%)
Women that took iron tablets & anti-malarial drugs	524	75%
Women that received 2 or more ant-tetanus injections	194	28%
Women with 4+ ANC visits	312	45%
Women that delivered at health facilities	133	19%
Women that received postnatal check	224	32%

Table III above shows that 75% of the respondents took iron tablets and anti-malaria drugs during their last pregnancy and this may be connected to the fact that Nigeria is a malaria pandemic country and pregnant women and children under five were the most vulnerable. Therefore, protective measures against such diseases are important. Furthermore, only 28.7% of the respondents received 2 or more ant-tetanus injections during their last pregnancy. WHO recommends at least eight ANC visits but only 45% had four and above ANC visits in the study area. Thus, more than 50% of the

respondents had not received all the essential ANC services in the area. Contrarily, from the in-depth interviews conducted, all the participants interviewed except one believed that ANC services were very important and therefore always ready to utilize the services. An informant argued that “ANC services is very important and the government has tried by introducing the programme because women need frequent medical attention during pregnancy” (R10).

Another important aspect of maternal health was child delivery at a health facility where pregnant

women were attended to by professional birth attendants. The quantitative data showed only 19% of the respondents delivered at health facilities, against 34.9% who delivered at home but attended by traditional birth attendants, while 39.7% delivered at home not attended by anyone; meaning that most of the women delivered their last babies at home either alone or attended by non-professional birth attendants who could not render any competent help in case of child delivery related complications. These findings were corroborated during interviews where the majority of the participants argued that women did not go to the hospital for child delivery except when there were complications as one of the informants stated:

We take our wives to the hospital for child delivery when there are complications or the patients experience prolonged labour. The reason is this, if you take your wife to the hospital for delivery before the physicians touch the patient, agreement on the amount to be paid must be reached regardless of the patient's condition. (R1)

Furthermore, some women patronised traditional medicine as an alternative because it was cheap and accessible as argued by a participant that "honestly women don't go to hospital for child delivery because many pregnant women rely on traditional medicine as it is cheap and accessible" (R9). The implication is that many families tend to avoid delivery at health facilities and resort to traditional medicine and home deliveries due to hospital charges which might adversely affect the global effort of combating maternal mortality.

Postnatal check-up was the last important component of maternal health services. Only 32% of the respondents received postnatal care, which meant that a larger number of women (68%) in the study area had not received postnatal check-ups after most recent births. This was in line with the findings from the interviews conducted as most of the people interviewed opined that women who gave birth safely at home neither take their newborn babies to health facilities for immunisation nor go for postnatal check-ups in all the ten selected areas of the LGA. The reasons included lack of ANC facilities, transportation problems, cost of child delivery at health facilities inadequate qualified and dedicated health personnel among others. Specifically, an informant stated that:

Women who delivered safely at home are very rare for such women to attend postnatal check-ups. However, our women are highly interested in utilising ANC services

but are constrained by a lack of dedicated health personnel. Four years ago, there was a female health personnel who worked here, and if you could see how pregnant women used to gather for ANC every Wednesday you would be surprised. But after she was transferred to another place women stopped coming. (R9)

The foregoing shows that adequate and qualified healthcare providers in health facilities are essential for effective healthcare deliveries. Furthermore, based on our findings, the number of mothers that received 2 and above injections, those with 4+ ANC visits as well as those delivered at health facility and received postnatal care was not significant and therefore it can be deduced that the level of utilisation of maternal health in Kalgo LGA was very low. The finding was consistent with the finding of secondary data gathered from records of the Kalgo Local Government Health Authority (2021) which revealed that only 33% of pregnant women with early ANC visits, 19% completed ANC visits and 22% delivered at the health facility in the LGA during the third quarter of 2021.

*Socio-cultural Factors***Table IV: Views of the Respondents on the Socio-cultural Factors Affecting Utilisation of Maternal Health Services**

S/N	Factor	Response Category					
		SA	A	N	D	SD	Total
1	Hospital delay discourages ANC utilisation	128 (18.3%)	51 (7.3%)	17 (2.4%)	257 (37%)	247 (35%)	700 (100%)
2	Religion negatively affects use of ANC	10 (1.3%)	27 (3.9%)	18 (2.6%)	86 (12.2%)	559 (80%)	700 (100%)
3	Education encourages use of ANC	240 (34.3%)	147 (21%)	87 (12.4%)	108 (15.4%)	118 (16.9%)	700 (100%)
4	Male dominance/patriarchy discourages use of ANC	276 (39.4%)	117 (16.7%)	119 (17%)	93 (13.3%)	95 (13.6%)	700 (100%)
5	Family size or domestic chores prevents use of ANC	220 (31.4%)	231 (33%)	72 (10.3%)	88 (12.6%)	89 (12.7%)	700 (100%)
6	Fear of side effect discourages use of ANC	201 (28.7%)	163 (23.3%)	95 (13.6%)	96 (13.7%)	145 (20.7%)	700 (100%)

The table above revealed that socio-cultural factors affected utilisation of maternal health facilities in the area to a large extent. Specifically, family size or domestic chores discouraged mothers from going out to seek medical care as 64.4% of the respondents either agreed or strongly agreed. Domestic chores such as food preparations, washing of plates and children's clothes, cleaning, taking care of children and husbands prevent many mothers from going out to utilise maternal health services.

The data also showed that male dominance/patriarchy was a strong determinant of utilisation of maternal health facilities in the area as more than 70% of the respondents either agreed or strongly agreed that patriarchy affected mothers' effort to use modern maternal health services in the area, while 55.3% of the respondents either agreed or strongly agreed with effect of education on use or non-use of maternal health services. This finding was not surprising for a location in Northern Nigeria in general and Kebbi State in particular, where most decisions on socio-economic and political life of the family including where and how to seek for medical care are taken by the husbands. Women are subjugated and confined in matrimonial homes, thereby denying them rights to acquire education, participate in the political life of society, and limiting choices and capacities for self-development.

Table IV shows that religion was no longer a critical determinant of utilisation of maternal health services in Kalgo LGA because an overwhelming majority of the respondents believed that religion was not against utilisation of maternal health facilities. This finding was strengthened during the interviews where all the informants argued that Islam does not reject maternal health services. As stated by an informant: "I'm totally against the idea that religion rejects utilisation of maternal health services, Islam as my religion accepts ANC and postnatal check-up and our

religious leaders encourage us to utilise the services." (R7)

From the finding, it is apparent that religion of the respondents was not against use of maternal health services, therefore resistance to modern maternal health services on account of religion should be allowed to rest. In another development an Islamic cleric argued that:

Resistance by a woman from being attended to by a male physician is an act of ignorance. Islam enjoins female patients to be attended to by a female physician but if a female physician is not available then a male physician can attend to female patients. Inadequate female doctors in our hospitals is our fault because Islam makes it compulsory for males and females to search for both Islamic and Western education. (R14)

Some women often feel uncomfortable when attended to by male physicians due to religious or cultural reasons, but it is apparent from the above quotation that the religion of the respondents allows male physicians to attend to female patients. Similarly, education affected maternal health utilisation in the area, because 55.3% of the respondents either agreed or strongly agreed that level of education was a strong tool that influenced peoples' decision to use or not use maternal healthcare services. Findings from the interviews also confirmed this as most of the people interviewed believed that education was a strong determinant of utilisation of maternal health services. According to an informant, "level of education affects the utilisation of ANC services. Some uneducated people don't even believe in ANC. Those with a high level of education and well enlightened tend to utilise the services more

than the uneducated.” (R6). Education is a strong factor that empowers mothers to utilise modern maternal

health care services, especially during pregnancy.

Economic Factors

Table V: Views of the Respondents on the Economic factors affecting Utilisation of Maternal health Services

S/N	Factor	Response category					
		SA	A	N	D	SD	Total
1	Transportation negatively affects ANC utilisation	205 (29.3%)	71 (10.1%)	118 (16.9%)	123 (17.6%)	183 (26.1%)	700 (100%)
2	Financial resources affect use of ANC	234 (33.4%)	300 (42.9%)	80 (11.4%)	47 (6.7%)	39 (5.6%)	700 (100%)
3	Shortage of material and human resources affects use of ANC	176 (25.1%)	171 (24.4%)	80 (11.4%)	65 (9.4%)	208 (29.7%)	700 (100%)

Table V reveals that socioeconomic factors were very important determinants of the utilisation of maternal health facilities in the area. The majority of the respondents (76.3%) either strongly agreed or agreed that financial resources influenced the utilisation of maternal health services. Therefore, even when some of the ANC services were offered free, mothers required financial resources to access other essential services and of course be able to afford the kind of foods recommended by the medical personnel. Data from the interviews also indicated that the majority of informants believed that poverty/financial problems affected the utilisation of maternal health services as argued by an informant:

Most of our people are in absolute poverty, many cannot afford to go to Birnin Kebbi or Makera to seek competent medical interventions and find it difficult to buy the required drugs and food that health personnel usually recommend for pregnant women. (R17)

Clearly, people were willing to use maternal healthcare services but were constrained by poverty. Humans need to feed before anything else, the inability of some household heads to adequately cater for their families in a patriarchal society like Kalgo LGA affected the utilisation of health facilities as also argued by a traditional ruler:

We cooperate with the government to ensure the smooth running of ANC programmes. The only problem that we face in villages is poverty. The truth of the matter is that our women are interested in using the services. Even yesterday a woman reported to me that she wanted to go for ANC but her husband refused to give her money to attend. What the husband told her was he was after their food, not

ANC. The woman had to sell some of her belongings and sponsored herself to the hospital. Therefore, a poor man who finds it difficult to feed his family tends to find it difficult to take his wife to hospital for child delivery. (R12)

Many prospective mothers were serious about ANC services, which if supported financially by either the husbands or governments, significant improvement could be achieved in ANC coverage thereby reducing pregnancy-related complications and maternal deaths in the area. An informant asserted that:

Financial problem seriously affects the utilisation of ANC services because many pregnant women who attend ANC neither can afford to pay for medicine and other recommended food items such as eggs, meats etc. nor their husbands. This adversely affects their health and during childbirth, many women are left at home suffering from prolonged labour due to poverty unless someone from extended family members intervenes and then will be taken to hospital. (R1)

Some prospective mothers who struggle to access ANC services could not afford what medical personnel recommended for use and this was a serious problem because going for ANC without complying with instructions of medical personnel might yield little or no impact on improving the health of mothers during pregnancies. Health personnel argued that:

Some women don't come to the hospital because of the meagre amount of money that has to be spent on opening files and other minor issues. We give free medicine to pregnant women and children

under five but when the medicines provided by the government are finished the clients have to pay for them. (R6)

Consequently, we inferred that healthcare providers in the area affirmed financial problems as a critical factor in determining levels of use of maternal healthcare services. Therefore, if pragmatic action is not taken, modern maternal healthcare services will be out of bounds to most mothers in the area.

Discussion of the Findings

Understanding the level of utilisation of maternal and child health services in Kalgo L.G.A. was one of the objectives of this study. Although 75% of the respondents took iron tablets/anti-malarial drugs, utilisation of the other components lagged as the number of mothers that received 2 or more pregnancy ant-tetanus injections, and those with 4 + ANC visits as well as those delivered at health facility was very low. The majority of mothers (74.6%) delivered their last babies at home either alone or attended by non-professional birth attendants who could not render any competent assistance in case of child delivery-related complications. Therefore, it can be deduced that although the level of utilisation of maternal health services in the LGA was higher than that of the State, the utilisation was still below the national average. Low utilisation of maternal health services in the area confirmed the findings of NDHS (2018), which reported that Kebbi State had only 14.7% of women received ANC services from skilled personnel, and 7.4% delivered at a health facility during pregnancy of the most recent birth.

The utilisation of maternal health was found to have been strongly influenced by the level of education, as most of the respondents believed that education encouraged the use of the ANC services, consistent with previous findings (Okafor, 1983; Navaneetham, 2002; Muhammad-Baba & Yankuzo, 2012; Onasoga *et al.*, 2012; Yarzever & Said, 2013; Desalew *et al.*, 2014; Ononokpono *et al.*, 2014; Akowuah *et al.*, 2018; and Agunwa *et al.*, 2017). Education enables mothers to understand basic information and instructions that are good for health, and it emancipates both mothers and fathers from fatalistic and stoical attitudes thereby seeking and maintaining health-related behaviour.

Domestic chores such as food processing, washing plates, childcare and attending to husbands prevented many mothers from going out to utilise maternal health services. Also, required maternal health facilities were not adequate in most villages in the LGA. Unequal distribution of educational and health resources in the area, where some areas had more access to health facilities than others, the power differential between

husbands and wives, poverty/lack of financial resources, transportation, and inadequate ANC facilities were among the major factors that affected utilisation of maternal health services in the State. Adgoy (2018) reported similar factors affected ANC utilisation.

Divorce was low (7.8%), so marital breakdown was infrequent in the study area. Furthermore, 7.9% of mothers were below 18 years old bearing children, showing an incidence of girl-child marriage in the area. There was a high level of illiteracy among women in the area as 70.4% of the respondents did not attend any formal education and more than 80% earned less than five thousand per month.

Conclusion and Recommendations

Low utilisation of maternal health services was responsible for a high level of maternal morbidity and mortality in Kebbi State. Many factors have been identified as determinants of the utilisation of maternal health services in Kalgo LGA. These factors included level of education, poverty, patriarchy, hospital delay, religion, domestic chores, fear of side effects, distance, transportation, inadequate maternal health facilities and more importantly accessibility and affordability of the services.

The study's data suggest that to achieve optimal utilisation of maternal health services in the area, the socio-cultural and economic roots of the problems in the area must be addressed. Specifically, the government should implement a policy prohibiting marriage among girls of less than 18 years and implement a girl-child free and compulsory education up to the tertiary level. The government in collaboration with NGOs should make ANC, delivery and postnatal facilities available, accessible, and free in the LGA. The government should also implement a poverty alleviation programme exclusively for women. More importantly, the already existing committee comprising of traditional and religious leaders as well as health officials in the LGA that shoulder the responsibility of enlightening men during religious gatherings on the importance of ANC should enlighten husbands know that wives are not meant for their economic, political and domestic exploitations, that they should be assisting wives to carry out domestic chores and empowering them for self-development and economic independence.

References

- Adgoy, T. E. (2018). *Key social determinants of maternal health among African countries: a documentary review*. MOJ Public Health. Available: <https://medcraveonline.com/MOJPH/MOJPH-07-00219.pdf>. Accessed on 16th November, 2019.

- Akowuah, A. J., Baffour, A. P. & Vitor, A. D. (2018). Determinants of antenatal healthcare utilisation by pregnant women in third trimester in pre-urban Ghana. *Hindawi Journal of Tropical Medicine*, ID 1673517, 1-8.
- APHRC (2017). *Maternal Health in Nigeria: Facts and Figures*. Retrieved from <https://pdfs.semanticscholar.org/ac54/148abc987f6ffa1072ffcebb6c9a2e62be0f.pdf> on 16th November, 2019.
- Desalew, Z., Ayele, B., Kedir, T. & Desalegn, A. A. (2014). Factors affecting utilization of maternal health care services in Kombolcha district, eastern Ethiopia. *International Scholarly Research Notices*, ID917058. Available: <http://dx.doi.org/10.1155/2014/917058>.
- Doctor, V. H., Findley, E. S., Ager, A., Gometto, G., Afenyadu, Y. G., Adamu, F. & Green, C. (2012). Using community-based research to shape the design and delivery of maternal health services in Northern Nigeria. *Reproductive Health Matters*, 20(39), 104-112.
- Fagbamigbe, F. A. & Idemudia, S. E. (2016). Wealth and antenatal care utilization in Nigeria: Policy implications. *Health Care for Women International*, 38, 17-37.
- Kalgo Local Government Health Department (2019). Official records of Kalgo Local Government Health Department.
- Murphy, M. & Baba, T. M. (1981). Rural Dwellers and Health Care in Northern Nigeria. *Journal of Social Science*, Vol. 15A, Pp. 269.
- Muhammad-Baba, T. A. & Yankuzo, K. I. (2012). Determinants of the utilization of vaccination services in Gusau, Nigeria. *Hemisphere Studies on Cultures and Societies*, 27, 108 – 121.
- National Bureau of Statistic (2018). *Statistics Report on Men and Women in Nigeria*. Abuja: Federal Republic of Nigeria.
- Navaneetham, K. & Dharmalingam, A. (2002). Utilization of maternal health care services in Southern India. *Journal of Social Science & Medicine*, 5(5), 1849–1869.
- NDHS (2008). *Nigeria Demographic and Health Survey Final Report*. Abuja, Nigeria, and Rockville, Maryland, USA: NPC and ICF.
- NDHS (2013). *Nigeria Demographic and Health Survey Final Report*. Abuja, Nigeria, and Rockville, Maryland, USA: NPC and ICF.
- NDHS (2018). *Nigeria Demographic and Health Survey Final Report*. Abuja, Nigeria, and Rockville, Maryland, USA: NPC and ICF.
- Nigeria Living Standard Survey Report (NLSS, 2020). Abuja, Nigeria: National Bureau of Statistics.
- Ogolla, C. (2015). The public health implications of religious exemptions: a balance between public safety and personal choice, or religion gone too far. *Journal of Law and Medicine*, 25(1). Available: <https://scholarlycommons.law.case.edu/healthmatrix/vol25/iss1/11>.
- Okafor, S. I. (1983). Factors affecting the frequency of hospital trips among a predominantly rural population. *Journal of Social Science*, 17(9), 591-592.
- Onasoga, O. A., Afolayan, J. A. & Oladimeji, B. D. (2012). Factors influencing utilization of antenatal care services among pregnant women in Ife Central LGA, Osun State Nigeria. Available online at www.pelagiarsearchlibrary.com.
- Ononokpono, N. D. & Odimegwu, O. C. (2014). Determinants of maternal health care utilization in Nigeria: a multilevel approach. *Pan African Medical Journal*, 17(1), 23–35.
- PRRINN-MNCH (2012). *Annual Review 2011: Narrative report*. Human Development Resource Centre.
- Shehu, A. (2014). *Kebbi State: Yesterday and Today*. Nigeria, Multinational Concepts Limited.
- Solanke, L. B., Oladosu, A. O., Akinlo, O. & Olanisebed, O. S. (2015). Religion as a social determinant of maternal health care service utilisation in Nigeria. *African Population Studies*, 29(2), 1868-1881.
- WHO (2018). *World Health Statistics: Monitoring Health for the SDGs*. Geneva: Author.
- WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division (2023). *Trends in Maternal Mortality: 2000 to 2020 Estimates*. Available from https://apps.who.int/iris/bitstream/handle/10665/194254/9789241565141_eng.pdf?sequen. Accessed on 28th February, 2023.
- WHO (1976). Maternal health and safe motherhood programme: Perinatal mortality. *Family and Reproductive Health*. Geneva, Author/.
- Yar'zever, S. I. & Said, Y. I. (2013). Knowledge and barriers in utilization of maternal health care services in Kano State, northern Nigeria. *European Journal of Biology and Medical Science Research*, 1(1), 1-14.