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UTILIZATION OF MATERNAL HEALTHCARE SERVICES AND MATERNAL MORTALITY AMONG WOMEN IN RURAL COMMUNITIES IN NASARAWA STATE, NIGERIA

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Abstract

Globally, maternal health has been an issue of concern to public health practitioners, sociologists, demographers and health service providers. This is because of the enormous contribution towards the overall health and well-being of women within the reproductive health. The study examined the utilization of maternal healthcare services and maternal mortality among women in rural communities of Nasarawa State, Nigeria. A multistage sampling technique was adopted to select Local Government Areas, electoral wards, villages/communities, houses, household and individual/ women of childbearing age. The methods of data collection utilized for the study was questionnaire and in-depth interview (IDI). The questionnaires were analyzed quantitatively using tables, frequency, percentage and data generated through in-depth interview (IDI) were analyzed to complement and support the quantitative analysis using content analysis and verbal narration. The results show that utilization of maternal healthcare services has impact on maternal mortality among women in rural communities of Nasarawa State, Nigeria. It is based on this that the study recommends that entrenchment of social security for pregnant women especially rural women is quite essential for the improvement in maternal healthcare. Similarly, there is need for interventions such as health education and community mobilization that aims to educate rural women on risk factors and danger signs associated with poor maternal health outcomes should be carried out in this area. Such can be done through the use of religious and community leaders; this would help promote awareness especially among women in rural communities.

Keywords: Utilization, Maternal Healthcare, Maternal Mortality, Women, Rural Communities

1. Introduction

Maternal mortality has been on the increase in recent times with detrimental effects on the socio-economic development of many nations. Approximately 830 women die globally every day from preventable causes related to pregnancy and childbirth. More worrisome is the fact that 99% of all maternal deaths occur in developing countries (WHO, 2021). The situation of maternal health in Nigeria remains one of the worst in Africa as evidenced by prevailing maternal mortality ratios. Nigeria contributes more significantly than 19% of maternal deaths globally. This prevailing problem in Nigeria is strongly linked to the weak implementation of maternal health policies and services as well as the presence of several cultural, socio-economic and environmental factors. Also, Nigeria maternal health care system is branded by traditional, faith-based and orthodox healthcare providers. The situation is even severe in rural areas in Nigeria where the health care system is wretched, poor and overstretched, in addition to the poverty level which is high with 63 percent of deliveries taking place at home and only a small percentage (38%) of women is attended to at delivery by a trained attendant (World Health Organization Factsheets, 2021). The Nigerian Federal Ministry of Health had set year 2006 as the target year that maternal mortality would have reduced by 50%. However not only were these targets not achieved but also the

maternal health situation in Nigeria is now much worse than the previous years. Past efforts to reduce maternal mortality ratio in Nigeria were concentrated on making direct improvements to the health system. These efforts have not involved enough resources to successfully reduce maternal mortality in the country.

Nasarawa State is an agrarian state with high percent of rural dwellers. The state has a population of over 3 million people including 1.6 million women of childbearing age. (National Bureau of Statistics, 2022). However, the maternal mortality ratio in Nasarawa State is 512 per 100,000 live births as only one in three births in the State is attended by skilled health personnel (APHRC, 2017). Women in rural areas contributed more to this number as they were less advantage compared with women in urban areas in terms of maternal health services including family planning services. Maternal mortality in the State is a serious health problem. In the State, most rural women are challenged with the predicament of accessing and utilizing of maternal health care services. This is because they are faced with the problems of low income and education, unavailability of health care services and poor road network. Often times, women living in rural areas have little or no source of income, education to cater for their health needs. They are at the disadvantaged part of the society. Besides, women from disadvantaged segments of society are in double jeopardy since they find themselves even more disadvantaged within a disadvantaged population–they are the poorest among the poor and the least educated among the inadequately educated. Women with low income are economically disadvantaged and are unable to use modern contraception, attend four or more antenatal care, deliver with the help of a skilled attendant or even afford the cost of a cesareans surgery when the need arises.

Several studies in Nigeria (Ogu & Ephrain, 2018; Agan, Monjok, Akpan, Omoroniya, & Ekabua, 2018; Awoyesuku. Macpepple, & Altraide, 2018; Usman, Abdullahi, & Awawu, 2019) have been undertaken on the utilization of maternal healthcare services and maternal mortality, but very few have explored the utilization of maternal healthcare services and maternal mortality among women in rural communities of Nigeria where maternal mortality rates remain increasingly higher. Available studies have concentrated on urban and rural women in the Western and Eastern parts of Nigeria; very few have focused on the North Central region of Nigeria and Nasarawa State in particular. Consequently, little is known about the utilization of maternal healthcare services and maternal mortality among women in rural communities in this part of the country. This has given rise to not just context-specific gaps in literature on utilization of maternal healthcare services and maternal mortality among women in rural communities of Nasarawa State-Nigeria, but also in knowledge related to the utilization of maternal healthcare services and maternal mortality among women in rural communities of Nasarawa State, Nigeria, a larger percent of whom are of childbearing age. Therefore, it has become imperative to study the utilization of maternal healthcare services and maternal mortality among women in rural communities of Nasarawa State, Nigeria.

2. Literature Review

2.1. Conceptual Issues

Concept of Mortality

Like other societal issues, scholars or intellectuals have variegated views on mortality. In other words, there is no consensus or generally accepted definition of the concept. But this study will dwell on those definitions that are widely accepted. Mortality is the pattern of death in a population. It is the occurrence of deaths within a population at a given point in time. Mortality refers to deaths that occur within a population. The incidence of death can reveal much about a population's standard of living and health care delivery services in a country (NBS, 2016). For Graunt (1662), morality refers to the relative frequency of death in a population. Demographer use two different concepts when referring to mortality, namely, the life span, which is numerical age limit of human life and life expectancy or expectation, which is the average expected number of years of life to be lived by a particular population at a given time. In the context of the study, mortality means deaths that occur among women in Nasarawa State.

Concept of Maternal Mortality

It is rather difficult to point out a single holistic definition of maternal mortality despite its significance and wide usage in the field of demographic and population studies. This has left scholars, researchers, intellectuals and authors to defining maternal mortality from different perspectives and perceptions. World Health Organization refers to maternal mortality as the death of woman while pregnant or within forty-two days after 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, and also maternal death as the death of a woman from direct or indirect obstetric causes occurring more than 42 days but less than one year after the termination of the pregnancy (WHO, 2014). Similarly, Ibrahim (2016) asserted that maternal mortality refers to any loss of a woman's life resulting from pregnancy complication or death within 42 days after childbirth, notwithstanding the period or site of the pregnancy, emanating from issues that are linked or escalated by the management of the pregnancy but not from accident or incidental factors. Maternal mortality refers to deaths due to complications from pregnancy or childbirth (Oxaal & Baden, 1996). Within the context of this study, maternal mortality denotes the death of rural women or mothers in Nasarawa State while pregnant or within forty-two days after 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; and death of rural women or mothers in Nasarawa State from direct or indirect obstetric causes occurring more than 42 days but less than one year after the termination of the pregnancy.

Concept of Maternal Health

Maternal health is the health of women during pregnancy, childbirth, and the postpartum period. It encompasses the health care dimensions of family planning, preconception, prenatal, and postnatal care in order to ensure a positive and fulfilling experience, in most cases, and reduce maternal morbidity and mortality, in other cases. Maternal health revolves around the health and wellness of women, particularly when they are pregnant, at the time they give birth, and during child-raising. World Health Organization has indicated that even though motherhood has been considered as a fulfilling natural experience that is emotional to the mother, a high percentage of women go through a lot of challenges where they suffer health-wise and sometimes even die (WHO, 2020). Maternal health refers to a woman's health and well-being before, during and after pregnancy and encompasses aspects of physical, mental, emotional and social health. Maternal health includes the absence of morbidity, severe maternal morbidity and maternal mortality (Rural Health Information Hub, 2022). Maternal health according to (WHO, 2005) is defined as a state of total physical, mental and social wellbeing and not just the nonexistence of illness or infirmity in all issues that has to do with the reproductive age of women. Furthermore, with peculiarity to the African societies, maternal health according to Okeke, Oluwuo and Azil (2016) would include the ability to "exercise reproductive rights of family planning and access to basic focused antenatal care, without the encumbrances of patriarchy, financial or geographical inhibitions impacting on her overall health''. In this study, maternal health is conceptualized as the total wellbeing of a woman before pregnancy, during the period of pregnancy, having a safe delivery and after pregnancy.

Concept of Maternal Healthcare

Maternal healthcare is care of the fetus starts with prenatal health. The World Health Organization (2017) suggests that the first step towards health is a balanced diet which includes a mix of vegetables, meat, fish, nuts, whole grains, fruits and beans. During a pregnancy, women should receive continuous care from a physician to monitor the growth and status of the fetus. Maternal health organizations suggest that at a minimum pregnant woman should receive one ultrasound at week 24 to help predict any possible growth anomalies and prevent future gestational concerns (WHO, 2017). Maternal healthcare is comprehensive as it includes educational, social, nutritional services as well as medical care during and posts pregnancy. As observed, some reasons have

been attributed to why many pregnant and nursing mothers chose not to make use of appropriate antenatal and postnatal cares (Aluko-Arowolo & Ademiluyi, 2015). Some of these reasons can be cultural, hereditarily related to the social, economic and political developments. In this study maternal healthcare is conceptualize as the ability of a women within the reproductive age of 15-49 years to have adequate access to all the health facilities and resources that are needed for a safe pregnancy and delivery.

2.2 Theoretical Framework

The study is situated within the framework of Health Belief Model. The Health Belief Model (HBM) is a Psychological Model that attempts to explain and predict health behaviours. This is done by focusing on the attitude and beliefs of individuals. The Health Belief Model was developed in the 1950s by Social Psychologists Hochbaum, Rosenstock and Kegels working in the USA public Health Services. This theory explains psychological health behaviour change, the model is developed to explain and predict health-related behaviours, particularly regarding the uptake of health services (Janz, Nancy; Marshall & Becker 1984, Rosenstock, 1974). The Health Belief Model suggests that people beliefs about health problems, perceived benefits of action and barriers to action, and self-efficacy explain engagement (or lack of engagement) in health-promoting behaviour (Rosenstock, 1974). A stimulus, or cue to action, must also be presented to trigger the health-promoting behaviour.

The Health Belief Model attempts to predict health behaviour through a variety of means, health is influenced by behaviour and behaviour is modifiable (Stretcher & Rosenstock, 1997). According to MacKian (2003), the process of health care seeking involves identification of pathways to the formal health care system, often commencing with home care and traditional healers and extending to the formal system, pathways differing according to the present condition.

In a review of Health Belief Model or theory, Chen (2012) demonstrated that the decision to engage with a particular medical channel is influenced by a variety of variables, including sex, age, the social status, the type of complications, access to services and perceived quality of the service. Health-seeking behaviour looks at illness behaviour more generally and focuses in particular on motivating factors of illness perception and health belief. Health care-seeking behaviour studies look beyond the individual for social patterns or determinants of decision making. Health seeking behaviour varies for the same individuals or communities when faced with different illnesses.

The Health Belief Model is used to develop effective interventions to change pregnant woman health-related behaviours by targeting various aspects of the model's key constructs (susceptibility, severity, benefits, cue to action). Interventions based on the Health Belief Model may aim to increase perceived susceptibility and perceived seriousness of a health condition by providing education about prevalence and incidence of complications, individualized estimates of risks, and information about the consequences of maternal mortality (e.g., medical, financial, and social consequences). Interventions may also aim to alter the cost-benefit analysis of engaging in a health-promoting behaviour when seeking health care by the women (i.e., increasing perceived benefits and decreasing perceived barriers) by providing information about the efficacy of various behaviours to reduce risk of disease, identifying commonly perceived barriers towards health care, providing incentives to engage in health-promoting behaviours, and engaging social support or other resources to encourage health-promoting behaviours among the women.

Furthermore, interventions based on the Health Belief Model may provide clues to action to remind and encourage women to engage in health-promoting behaviours such as practicing healthy living during the period of pregnancy. Interventions may also aim to boost self-efficacy by providing training in specific health-promoting behaviours, particularly for complex lifestyle changes during childbearing (e.g., changing diet or physical activity, adhering to a complicated medication regimen). Interventions can be aimed at the individual level (i.e., working one-on-one with women to increase

engagement in health-related behaviours) or the societal level (e.g., through legislation, changes to the physical environment.

The espousal of Health Belief Model in this study, is exactingly talking outside the purview of health seeking given that pregnancy is not associated with illness. Conversely, its application here indicates its penetrating and multidimensional feature principally for a discourse on the utilization of maternal healthcare services and maternal mortality among rural women which in themselves are, generally, heralded by some form of complications that translate to illness and illness behaviour. Hypothesized on the basis of main constructs, the model is entrenched in the perception of the actors as the driver of health seeking behaviour. The model supposes that perceived susceptibility to maternal related mortality would likely motivate a pregnant woman or her significant others to undertake maternal health services related to family planning, antenatal, delivery, postnatal and beyond postnatal care with zeal. Such perception will engender early and sustained care seeking in facilities with requisite competencies. This would not be the case for those who perceive pregnancy as a normal condition that does not require special care. The latter scenario may explain why some families allow expectant women to continue their laborious activities late into pregnancy, hardly get them registered early and/or in tested medical facilities, and do not support these women to improve their nutritional status (World Health Organization, 2000).

Research shows that diets with sufficient calories and micronutrients are essential for pregnancies to be successfully carried to term. Poor nutrient intake is associated with anaemia and serious maternal illness. Anaemia among pregnant women may be a function of several factors such as nutritional ignorance, beliefs, practices and poverty. Indeed, women represent a disproportionate share of the poor and are largely unable to independently provide themselves with necessary maternal requirements; a condition that has implications for their health status and pregnancy outcomes.

The model views perceived severity in relations to already established illness conditions, in this case maternal complications. Customarily, perception of seriousness of a given maternal situation would not only make for recourse to early emergency obstetric care but also patronage of perceived adequate facilities. Yet due to ignorance about symptoms of life-threatening conditions, requiring urgent attention, some situations are never perceived as serious. As studies have indicated, maternal mortalities are strongly associated with delays in seeking care, sub-standard health services and lack of medical supplies at the time of labour, delivery and immediately after birth (WHO 2000; United Nations. 2000; & UNICEF, 2000).

Perceived benefits emphasize calculations, among potential actors, pertaining to the merits and costs of either taking or avoiding a specific health related action within a given illness scenario. This construct assumes that individuals will take actions considered appropriate for handling threatening situations, in this case maternal related complications. The appropriateness of a given action will be to the extent that other alternatives are less desirable or even inimical to successful maternal outcomes; unnecessary delays in transferring emergency cases to medical facilities, patronizing inadequate facilities and engaging in dangerous activities individually and collectively undermine the health status of expectant mothers.

The model conceives perceived barriers in terms of assumed and practical limitations to health seeking. For instance, an actor may conclude that some facility is inadequate to offer minimal obstetric care either due to poor state of equipment or personnel bereft of current knowledge in medical practice or both. It could also be that treatment charges are exorbitant or that staff are rude and hardly consider the feelings of patrons. A study among the Ibani of River State, Nigeria found that the people avoided facilities that do not readily release placentas (afterbirth) to families for blessings and burial. These among other reasons may serve as disincentives for not patronizing a facility even if the latter is reputed for competence (Nwokocha, Obono, & Adedimeji, 2007).

3. Methodology

3.1 Research Design

The study utilized the Survey research design. Survey research design can also be called descriptive research. The design best reveal facts, interpret, produce and integrate information, as well as point to their consequences in interrelationships. The researcher chose this design because the area covered by this study is large and so, this method enables the researcher to use the sample drawn to represent the various elements of the population.

3.2 Population and Sample Size

The key elements of this study consist of all women of child bearing age. These women are within the age bracket of 15 to 49 years and are residents of the selected Local Government Areas of Akwanga and Nasarawa Eggon (Nasarawa North Senatorial District), Keana and Awe (Nasarawa South Senatorial District) and Kokona and Nasarawa (Nasarawa West Senatorial District). They include married, divorced, separated and single women who have attained the age of puberty and can bear children. They also include both educated and uneducated women from different ethno-religious and cultural backgrounds as well as those employed in the formal and informal sectors including the housewife's and the unemployed. Additionally, the study population consists of health care personnel providing maternal healthcare services in all public and privately-owned health facilities in the study area. These healthcare personnel include medical doctors, nurses, midwives, community health workers and medical auxiliaries working in healthcare facilities in Nasarawa State, Nigeria. Furthermore, traditional birth attendants, including village heads or community leaders, and officials of civil society organizations working on reproductive, maternal health and related issues also constituted the population of this study. The population of this category of people from the selected Local Government Areas is 242,451 (National Bureau of Statistics, 2023). The study employs multistage sampling technique. Multi-stage sampling techniques including simple random, systematic sampling, clustered and purposive sampling techniques in the selection of Local Government Areas, Electoral wards, villages/communities, houses, households and individuals/women of childbearing age. All things considered, a total of six-hundred (600) women of child bearing age were selected for the study. Although the study needed a fairly large population of rural women of childbearing age, the sample size of six-hundred (600) was used in the study exceeds the three hundred and eighty-three (383) determined by Krejcie and Morgan formula, the researcher however decided to use a sizeable sample size because the use of a larger sample size according to Cochran, (1977) can lead to increase precision in the estimates and reduce the margin of error, making the results more reliable and robust, increases the representativeness and accuracy of the sample.

3.3 Methods of Data Collection

The study utilizes two method of data collection namely questionnaire and in-depth interview (IDI).

3.4 Methods of Data Analysis

The research elicits data for the study through the questionnaire and in-depth interview (IDI) using quantitative and qualitative methods of data analysis. Quantitative data were analyzed using univariate analysis on the Statistical Package for Social Science (SPSS v26). The univariate analysis involves the use of descriptive statistics, such as frequency distribution, mean, graphs and percentage. Likewise, the study employed thematic content analysis to analyze the collected data. The interviews conducted were interpreted, transcribed and content-analyzed.

4. Results and Discussion

Table 1: Responses on Whether Respondents have Access to Maternal Health Care Services in Rural Communities of Nasarawa State, Nigeria

Response	Frequency	Percentage (%)
Yes	420	73.0
No	155	25.4
Total	**575**	**100.0**

Source: Field Survey, 2023

Table 1 shows the responses on whether respondents have access to maternal healthcare services in the sampled areas of the study. The study illustrates that 73.0 percent of the respondents affirmed that they have access to maternal healthcare services in rural communities of Nasarawa State, Nigeria and the other percent of the respondents are of contrary opinion. This implies that there is an enhancement and advance in accessing maternal healthcare services by rural dwellers especially expectant women in Nasarawa State, Nigeria. More so, access to maternal healthcare services exposes women to information and knowledge of different family planning practices and options especially the modern methods of contraceptives

This was established in an in-depth interview (IDI) conducted that there is an increased access to maternal healthcare services in the State in recent time. The accessibility has help in reducing maternal death. The improvement in the access to maternal healthcare services can be attributed to the effort by the government and donor agencies to eradicate by maternal mortality in the State. This assertion was vividly captured by a village head as:

There has been improvement in recent time about access maternal healthcare services in this village. Our women now attend antennal care and post-natal care because of the present of the primary healthcare clinic build by the State government in collaboration with Sustainable Development Goals programme. We also encourage our women to utilize the maternal healthcare services available in the village clinic. We have seen new development in maternal healthcare services in rural communities in the State (IDI/Male/48years/ Ngare-Akwanga LGA, Nasarawa State, Nigeria).

Table 2: How Maternal Healthcare Services Provided in Rural Communities of Nasarawa State, Nigeria Can be Assessed

Response	Frequency	Percentage (%)
Poor	166	28.8
Fair	172	29.9
Good	92	16.0
Very Good	89	15.5
Excellent	56	9.7
Total	**575**	**100.0**

Source: Field Survey, 2023

Table 2 indicates how maternal healthcare services provided in rural communities of Nasarawa State, Nigeria can be assessed. Majority of the respondents in the sampled areas of the study affirmed that the maternal healthcare services provided is fair in most selected rural communities of the study. This was established by 29.9 percent of the respondents in the sampled population of the study. This implies that the overwhelming proportion of the total respondents accepted that maternal healthcare services provided in the state is fair,

reasonable and accessible. However, there is still room for improvement in the country and state to be specific.

Table 3: Where Respondents Access Maternal Health Care Services in Rural Communities of Nasarawa State, Nigeria

Response	Frequency	Percentage (%)
Clinic (Primary Health Care Facilities)	198	34.4
Hospital	101	17.6
Chemist/Medicine	40	7.0
Traditional birth attendant	38	6.6
Faith/Spiritual Home	54	9.4
Home	55	9.6
Relatives/family	36	6.3
Others	53	9.2
Total	**575**	**100.0**

Source: Field Survey, 2023

The table provides a frequency distribution of the justifications for where respondents access maternal healthcare services in rural communities of Nasarawa State, Nigeria. The data reveals that significant majority of the respondents accredited that they access their maternal healthcare services in clinic with 34.4 percent of the respondents, while 17.6 percent of the respondents access theirs through the hospital, home for 9.6 percent of the respondents, faith/spiritual home for 9.4 percent of the respondents, chemist for 7.0 percent of the respondents of the sampled population of the study. Other places respondents seek for maternal healthcare services include traditional birth attendants, relatives/family and others. This suggests that the major place where respondents seek for maternal healthcare services is the clinic. This shows that there has been a shift from the traditional to the modern ways of access maternal healthcare services in the state.

Concurring to the findings from the quantitative data collected, participants from the in-depth interview (IDI) further accentuated that they access maternal healthcare services in the clinic presently. The outcome of the IDI shows a consensus among the participants of the in-depth interview who all agreed that they are now accessing maternal healthcare services from the clinic. Presently almost all the rural communities in the state have primary healthcare clinic. The statement was reiterated by a village head in one of the community that:

We can now access maternal healthcare in the new primary healthcare services provided by the state government. Our women don't need to access maternal healthcare services through other channels. For now, we have seen changes in access maternal healthcare services in village. My cabinet and me are working assiduously with the health workers in the clinic to reduce the incidence of maternal death and we have seen positive result in this regard (IDI/Male/51years/ Anjia Kolo – Nasarawa Eggon LGA, Nasarawa State, Nigeria).

Table 4: Number of Times Expectant Women have Access to Maternal Healthcare Services in Rural Communities of Nasarawa State, Nigeria

Response	Frequency	Percentage (%)
Once	106	18.4
Twice	115	20.0
Three Times	92	16.0
Four Times	93	16.2
Five times and more	169	29.4
Total	**575**	**100.0**

Source: Field Survey, 2023

Table 4 illustrates data on the number of times expectant women have access to maternal healthcare services in rural communities of Nasarawa State, Nigeria. The table reveals that respondents have access to maternal healthcare services five times and more during pregnancy which is in line with the World Health Organization recommendation. This was reported by 29.4 percent of the respondents of the sampled population of the study. This denotes that larger proportion of the study population accepted that they access maternal healthcare services five times and more during their prenatal period.

Table 5: Challenges of Utilizing Maternal Healthcare Services in Rural Communities of Nasarawa State, Nigeria

Response	Frequency	Percentage (%)
Poverty	202	35.1
Lack of transportation/ambulance	144	25.0
Delay in seeking care	30	5.2
Delay in referrals	37	6.4
Lack of resuscitative skills/efforts	49	8.5
Lack of equipment/medication/blood	18	3.1
Failure to recognize danger signs	23	4.0
Inadequate power supply	15	2.6
Man power shortage	28	4.9
Others	29	5.0
Total	**575**	**100.0**

Source: Field Survey, 2023

Table 5 illustrates the challenges of utilizing maternal healthcare services in rural communities of Nasarawa State, Nigeria. The data showed that majority of respondents constituting 35.1 percent of the respondents have established that poverty is the main challenge that affect the utilization and access to maternal healthcare services in rural communities of Nasarawa State, Nigeria. Other challenges include lack of transportation/ambulance, delay in seeking care, delay in referral, lack of resuscitative skills/efforts, lack of equipment/medication/blood, failure to recognize danger signs, inadequate power supply and man power shortage. This suggests that poverty is a principal and foremost challenge limiting the utilization and accessibility to maternal healthcare services among women in rural communities of Nasarawa State, Nigeria.

This finding is similar to the report of the interviewed village head who noted that poverty is the main challenge restricting people from utilizing and accessing maternal healthcare services in rural communities of Nasarawa State, Nigeria. Poverty is barrier to utilizing and accessing quality maternal healthcare services in remote settlements of the state. The participants reported that:

Our people are very poor. This is affecting the utilization and access to quality maternal healthcare services. Our people can barely eat three square meals and farming is our major occupation in this community. This farming is done in subsistence form. Since the people are poor affording medical bills is a serious issue. Sometimes, my people will say that they have not eating for days so going to access maternal healthcare services is not important. Poverty is a serious threat to the utilization and accessible to maternal healthcare services mostly in peasant, remote and inaccessible communities in emerging countries of the world. Government can assist rural dwellers by providing

free maternal healthcare services. This will go a long way in reducing maternal complications and even death in various rural communities of Nasarawa State (IDI/Male/41years/Gidan Ajo–Keana LGA, Nasarawa State, Nigeria).

Table 6: Responses on Whether there is a Relationship between Rural Women Socio-economic Status and Utilization of Maternal Healthcare Services in Rural Communities of Nasarawa State, Nigeria

Response	Frequency	Percentage (%)
Yes	398	68.9
No	179	31.1
Total	**575**	**100.0**

Source: Field Survey, 2023

Table 6 provides a comprehensive description of responses on whether there is a relationship between rural women socio-economic status and utilization of maternal healthcare services in rural communities of Nasarawa State, Nigeria. Study data indicates that 68.9 percent of the respondents approved that the rural women socio-economic status has significant and positive implications on the utilization of maternal healthcare services, while 31.1 percent of the respondents were indifferent to the response. This entails that rural women socio-economic status can influenced their utilization of maternal healthcare services absolutely. Therefore, it is evident that there is a connection between rural women socio-economic status and utilization maternal healthcare services in rural communities of Nasarawa State, Nigeria.

Table 7: Constraints for Expectant Women Utilizing Maternal Healthcare in Rural Communities of Nasarawa State, Nigeria

Response	Yes	No	N	Min	Max	Mean	Std. Error	Std. Dev
Unavailability of appropriate maternal healthcare facility	460	115	575	1.00	2.00	1.2000	.01670	.40035
Unaffordability of appropriate maternal Healthcare facility	437	138	575	1.00	3.00	1.2435	.01808	.43359
Inaccessibility of appropriate maternal Healthcare facility	435	141	575	1.00	3.00	1.2487	.01821	.43664
Others constraints for the pregnant women seeking maternal care in the community	437	138	575	1.00	2.00	1.2400	.01783	.42745
Valid N (listwise)			575					

Source: Field Survey, 2023

The frequency table provides information responses on the constraints for expectant women utilizing maternal healthcare in rural communities of Nasarawa State, Nigeria. Based on descriptive statistics, the research findings present several significant insights into the constraints expectant mothers faced in utilizing maternal healthcare in rural communities. Data shows that inaccessibility of appropriate maternal healthcare facility is the main constraint rural women encountered in utilizing maternal healthcare services with a mean of 1.2487 and a standard deviation of .43664. Other

constraints include unavailability and unaffordability of appropriate maternal healthcare facilities. Thus, from the table, it was discovered that inaccessibility to maternal healthcare facility is a basic and leading constraint of utilizing maternal healthcare facilities among rural women in rural communities of Nasarawa State, Nigeria.

Participants from the in-depth interview (IDI) conducted further reported that inaccessibility of appropriate maternal healthcare facility has hindered rural women utilizing maternal healthcare services. They noted that inaccessibility is a most important constraint in accessing and utilizing maternal healthcare services by expectant women especially those residing in remote and inaccessible settlements in the state and the country in general. This has significant impact on maternal healthcare services especially in rural communities. One of the participants of the IDI expressed his opinion as thus:

Not having access to maternal healthcare facility is a serious and focal limitation in this community. We find it difficult to access and utilize maternal healthcare facility. This has impact negative in our effort to reduced maternal death. You see this community is a remote, inaccessible and farther from the urban centre, so accessing and utilizing maternal healthcare facility is a big problem here. If government will work on this our road it will reduce maternal death greatly. You people should help us talk to government to come to our aid (IDI/Male/52years/ Ungwan Kwalla –Awe LGA, Nasarawa State, Nigeria).

4.1 Discussion of Findings

The study findings established that larger percent of the respondents affirmed that they have utilized maternal healthcare services in rural communities. Also, the study revealed that there is an enhancement and advance in the utilization of maternal healthcare services by rural dwellers especially expectant women in Nasarawa State, Nigeria. More so, access to maternal healthcare services exposes women to information and knowledge of different family planning practices and options especially the modern methods of contraceptives. This finding however contradicts the finding of Nuamah, *et al* (2019) which reported that there is poor access and utilization of maternal healthcare in a rural district in the forest belt of Ghana. The poor maternal health delivery in developing countries results in more than half a million maternal deaths during pregnancy, childbirth or within a few weeks of delivery. This is partly due to unavailability and low utilization of maternal healthcare services in limited-resource settings. The mothers' knowledge level of pregnancy emergencies and newborn danger signs was low. Socio-economic characteristics and healthcare access influenced the utilization of maternal healthcare. Use of health facility as a main source of healthcare was also associated with higher odds of antenatal care and skilled delivery. The study demonstrates suboptimal access and utilization of maternal healthcare in rural districts of Ghana, which are influenced by socio-economic characteristics of pregnant mothers. This suggests the need for tailored intervention to improve maternal healthcare utilization for mothers in this and other similar settings.

5. Conclusion and Recommendations

The study was carried out to assess the utilization of maternal healthcare services and maternal mortality among women in rural communities of Nasarawa State, Nigeria. The study uncovered that there is an improvement in the maternal healthcare system with emphasis on interventions that will accelerate reduction of maternal mortality ratio such as availability of skilled birth attendants, promotion of facility delivery, availability of antenatal care in all facilities, antenatal care attendance, implementation of the emergency transport scheme in hard-to-reach rural areas, and family planning will help in accelerating attainment of sustainable Development Goals. The study recommends that entrenchment of social security for pregnant women especially rural women is quite essential for the improvement in maternal healthcare. Apparent low standard of living during pregnancy due to economic crunch appeared to be an indication for engagement in tedious economic activities during pregnancy. This can result into irregular pattern of food intake necessary to sustain the body during pregnancy. Therefore, every effort must be in place to reduce effect of poverty. Improving living conditions in such areas as good road

network, provision of other infrastructure, income, housing, transportation, education, social support, and health services, will greatly impact on the wellbeing of pregnant women, thereby reducing the level of stress in raising the family economic status. Any attempt at establishing health sector reforms without first addressing the important issue of improving the state of the enabling factors for better health in a country is likely to be an unsuccessful attempt. Also, public assistance programmes, though not always sufficient, must be available for the pregnant women to augment their resource and encourage them to pay more attention to their health. Also, there is need for interventions such as health education and community mobilization that aims to educate rural women on risk factors and danger signs associated with poor maternal health outcomes should be carried out in this area. Such can be done through the use of religious and community leaders; this would help promote awareness especially among women in rural communities.

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