POLAC ECONOMIC REVIEW (PER)
DEPARTMENT OF ECONOMICS
NIGERIA POLICE ACADEMY, WUDIL-KANO

# FACTORS AFFECTING THE UTILIZATION OF MATERNAL AND CHILD HEALTHCARE SERVICES IN KWANDE LOCAL GOVERNMENT AREA OF BENUE STATE

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**Abstract**

*Sub-Saharan African communities continue to face high rates of maternal and child morbidity and mortality, highlighting the ongoing need for progress in the area of maternal and child healthcare services (MCHS). Within the Sub-Saharan African region, Nigeria consistently ranks among the nations exhibiting the most inadequate maternal health outcomes, characterized by a mortality ratio exceeding 1,047 per 100,000 live births in Nigeria. This study therefore, assessed the utilization and factors influencing the utilization of MCHS. The study was anchored on Andersen's Health Care Utilisation model (1968) and employed a descriptive survey design, and the research population consisted of 347 women of reproductive age, aged between 15 and 49 years, who had given birth within the past five years. The sample size was determined using Taro Yamane's formula, and data were collected through a self-designed questionnaire. The analysis was done with the statistical package for Social Sciences (SPSS) Version 24.0. Study period was from May 2023 to September 2023. The results reveal that the MCHS was greatly utilized by mothers. The variables that had influence on MCHS utilization were patriarchal family values, proximity, cost of services, religious and cultural beliefs, quality of service, accessibility and family influence. There was no correlation between socio-demographic characteristics and utilization of MCHS. The study recommends that to enhance maternal and child health outcomes, it is essential to foster collaboration aimed at advancing girl-child education, enhancing the economic well-being of women in rural and semi-rural areas, and guaranteeing the accessibility, affordability, and effectiveness of maternal and child healthcare services to provide high-quality healthcare.*

**Key Words:** Factors, Utilization, Maternal, Child, Healthcare, Kwande, Benue

## 1. Introduction

Maternal health pertains to the well-being of women throughout pregnancy, childbirth, and the postpartum phase. Pregnant women and newborns need access to high-quality health care throughout pregnancy, childbirth, and the postpartum period in order to survive and thrive (Igyuse, et. al., 2020). The maternal and child healthcare system constitutes a vital component of the healthcare infrastructure in every society. This importance arises from both the substantial human population within this sector and the critical role this demographic plays in the overall well-being and continuity of the human population. Despite being a natural process, pregnancy and childbirth can be dangerous for women, especially in Kwande local government area, where many women experience long-term suffering, ill health, and maternal and child mortality and morbidity. The key to effectively reducing maternal and child mortality lies in ensuring the equitable provision of essential maternal healthcare services, including antenatal care (ANC), skilled birth assistance (SBA), and postnatal care, across the entire

healthcare system. These services play a crucial role in promoting safe motherhood and enhancing the overall health of families and communities (Igyuse, et. al., 2020). It's also observed that this branch of the healthcare system primarily deals with relatively manageable, often preventable health issues. Furthermore, the growing emphasis on gender equality has notably increased the focus on the well-being of women and children. In light of these factors, this sector has garnered considerable attention, particularly from researchers, healthcare providers, and those responsible for healthcare implementation. (Paul & Chouhan, 2020 and UNICEF, 2021).

As noted across all cultures, each community has its unique approach to addressing bio-cultural challenges that impact its population (Owumi, 1993). The responses to different interventions appear to vary based on the distinct knowledge demonstrated by the population in each society.

Environmental elements also exert a significant influence on the healthcare-seeking approaches, resulting in notable variations in health interventions and responses among diverse cultures (Owumi, 1993; Ogu, et. al., 2023).

In developed nations worldwide, notable progress has been achieved in lowering the rates of illness and death among both mothers and children (Annan et al., 2018). However, in less industrialized countries across the globe, despite strenuous efforts to mitigate the severity of maternal and child healthcare issues, it continues to be a persistent problem that results in a significant loss of lives among a substantial portion of their populations (WHO, 2022; The World Fact Book, 2023).

Against this backdrop, the study concentrated on the evaluation of how maternal and child healthcare services are perceived and the determinants affecting their utilization in the Kwande local government area.

**Statement of the Problem**

A significant number of Nigerians, particularly those from rural areas, who were born around four to five decades ago, may have narrowly evaded infant mortality (Igyuse, et. al., 2020). Back then, only a small fraction of Nigerians reached adulthood, and, on average, out of fifteen pregnancies for a Nigerian woman, only seven resulted in successful deliveries. From these seven successful deliveries, a mother could expect only three of her children to survive into adulthood (NDHS, 1983). In total, out of every 1,000 successfully born children, approximately 194 might sadly pass away within the first three to five years of their lives (WHO, 2010). Moreover, not less than 1,000 out of every 100,000 mothers often do not survive childbirth (WHO, 2007). Those who do manage to survive sometimes experience abnormal growth due to insufficient nutrition, leading to issues such as stunted growth and failure to flourish. Their health environment posed significant challenges to overall health progress. This circumstance stemmed from a lack of sufficient awareness regarding maternal and child healthcare, which allowed for the emergence of various preventable infectious diseases like cholera, marasmus, typhoid, tetanus, and poliomyelitis. Additionally, diphtheria, diarrhea, and measles also resulted in the loss of numerous lives among children under the age of five (Ajala, 2001). Mothers were also affected by these dire circumstances. They experienced childbirth complications, including hemorrhaging, due to a lack of adequate knowledge about motherhood and child healthcare. Undoubtedly, this situation imposed significant barriers to both individual and national development.

In traditional rural communities, the well-being of this crucial demographic, comprising mothers and children under the age of five was taken very seriously (Owumi,1993). Traditional birth attendants/pediatricians and herbalists played significant roles in providing assistance and care (Owumi, 1993).

Andrianantoandro (2021) study in Madagascar on maternal healthcare seeking a mixed method analysis showed women's educational level, lack of economic power and low involvement in decision making at birth influenced maternal and child healthcare.

Okpala, et. al., (2019) found out that utilization of health services among rural women depend on awareness of the services, beliefs in their efficacy, proximity and availability of the services. In a corresponding investigation carried out by Rotimi-Oyedepo (2022), it was unveiled that women frequently face a disadvantaged position due to cultural taboos,

beliefs, and socio-economic factors, starting from the early stages of pregnancy through post-delivery. The widespread attendance of prenatal care clinics was found to be limited. The study also identified that transportation to these healthcare facilities, as well as the expenses related to medications and vitamins, presented barriers to clinic utilization for numerous rural women. Extended waiting times, limited availability of drugs, insufficient equipment, and the unwelcoming behavior of some hospital staff were cited as factors that discouraged seeking hospital care and choosing hospital delivery.

In his research on socio-cultural factors affecting treatment decisions, Owumi (1993) recognized age, level of education, occupation, religious beliefs, the influence of family connections, and ethnic background as the key determinants influencing the utilization of healthcare services.

According to the World Health Organization (WHO), an estimated 289,000 women died from pregnancy-related complications in 2020. This is equivalent to 810 women dying every day, or one woman every two minutes. The majority of these deaths (94%) occur in low- and middle-income countries. Sub-Saharan Africa has the highest maternal mortality ratio, with 511 deaths per 100,000 live births which is higher than the global average of 211 deaths per 100,000 (WHO, 2022) while, under-five mortality in Nigeria is estimated to be 85 deaths per 1,000 live births which is significantly higher than the global average of 37 deaths per 1,000 live births, and it's also higher than the average for sub-Saharan Africa, which is 69 deaths per 1,000 live births (United Nations, 2019). South Asia has the second highest maternal mortality ratio, with 351 deaths per 100,000 live births and under-five mortality is 44 per 1,000 live births (United Nations, 2019) and Finland and France under-fiver mortality rate is 2.6% and 3.2% and maternal mortality rate is 3 deaths per 100,000 live births and 8 deaths per 100,000 live births respectively (WHO, 2019). The widening disparity in the utilization of maternal and child health services between high-income and low-income countries has emerged as a significant challenge for developing nations striving to attain the Sustainable Development Goals (SDGs), as noted (Gyuse, et al., 2020). Inequalities in access to and utilization of antenatal, delivery, and postnatal care services, as well as gender inequality and poverty, are all factors that contribute to high maternal and child mortality rates. Nearly all pregnant women in high-income countries have access to prenatal care, skilled birth attendants, and quality maternal health services during childbirth (W.H.O, 2019). In contrast, in low income countries where Nigeria isn't and exception only 51% of women have access to ANC, and just 47% have access to SBA and MHS at delivery (WHO, 2019). These differences in availability, access and utilization of MCHS could account for the high maternal and child mortality in Nigeria.

Recognizing the persistent but often overlooked crisis, this research will delve into the socio-cultural elements that have been found to impact the utilization of maternal and child healthcare services in the Nigerian context, with a focus on the Kwande local government area as a case study. Specifically, the study aims to:

i. Investigate the utilization of maternal and child healthcare (MCHS) in kwande local government area.
ii. highlight the factors influencing the utilization of maternal and child healthcare services in Kwande LGA

**Hypothesis**

**$H_0$**: There is no significant correlation between socio-demographic factors and the utilization of Maternal and Child Healthcare Services (MCHS).

**$H_1$**: There is a significant correlation between socio-demographic factors and the utilization of Maternal and Child Healthcare Services (MCHS).

## 2. Literature Review

### 2.1 Conceptual Issues

**Concept of Utilization**

Utilization refers to the practical application, use, or consumption of something for a specific purpose. It involves making effective use of resources, services, information, or opportunities to achieve desired outcomes or benefits. Utilization can be applied to various contexts, and the nature of what is being utilized

depends on the specific domain (Mupwanyiwa, et. al., 2020).

In healthcare, for example, utilization may refer to the extent to which individuals use healthcare services or resources to maintain or improve their health. It implies an active and purposeful engagement with resources or information, emphasizing their meaningful application to achieve specific objectives or outcomes.

**Concept of Maternal and Child Healthcare**

Maternal and child healthcare (MCH) is a branch of healthcare that focuses on the well-being of women during pregnancy, childbirth, and the postpartum period, as well as the health and development of infants and children. It encompasses a range of services and interventions aimed at ensuring the health and survival of both mothers and their children. Maternal and child healthcare is a critical component of public health initiatives globally and is fundamental to achieving sustainable development goals related to health (UNICEF, 2021). Maternal healthcare consists of three main components; antenatal care utilisation (ANC), which includes the uptake of Tetanus Toxoid injection, delivering in a health institution and postnatal care (PNC) service utilization (Mupwanyiwa, et. al., 2020). Maternal and child health services (MCH) are essentially promotive and preventive and provide avenues for the early detection of mothers and infants at high risk of illness and mortality.

## 2.2 Empirical Review

The utilization of maternal and child health services constitutes a multifaceted behavioral phenomenon influenced by various factors. This behavior is intricately linked to the structure of the healthcare delivery system, with considerations such as service availability, quality, costs, continuity, and comprehensiveness playing pivotal roles. Additionally, social structures and health beliefs significantly impact the decision-making process regarding the use of these services.

For preventive services such as prenatal care, family planning, or immunizations, gauging the perception of necessity is more intricate compared to scenarios involving disease recognition. It encompasses beliefs regarding susceptibility, consequences, and the efficacy of the intervention. The utilization of maternal and child health services is contingent upon three distinct sets of individual attributes: A. Predisposing characteristics, encompassing factors like age, household size, education, number of previous pregnancies, and health-related attitudes; B. Enabling characteristics, including income, attributes of the healthcare system and accessibility, and the availability of health facilities; and C. Need characteristics, involving the characteristics of illness, perceived health status, and anticipated benefits from treatments (Habtom, 2017).

Maternal and child health services (MCH) are essentially promotive and preventive and provide avenues for the early detection of mothers and infants at high risk of illness and mortality. MCHS utilization has been shown to improve maternal health outcomes through prompt detection and management of these causes of maternal deaths, such as prophylactic treatment of malaria and the treatment of high blood pressure to prevent eclampsia. In this regard, the WHO has increased the number of required ANC contacts from a minimum 4 visits to 8 to ensure more contact between the expectant mothers and the healthcare professionals (Igyuse, et. al., 2020).

An examination of existing literature indicates that in developing nations, such as Nigeria, the adoption of modern healthcare practices, including maternal health services, can be shaped by the sociodemographic attributes of women, the cultural milieu, and the accessibility of these services. Several individual sociodemographic characteristics consequently impact the inherent inclination to pursue healthcare. For instance, the present age of women significantly influences their engagement with medical services. The age of women can occasionally act as an indicator of their accumulated knowledge about healthcare services, potentially exerting a positive impact on their utilization of health services. Conversely, due to advancements in modern medicine and improved educational opportunities for women in recent years, younger women may possess an enhanced understanding of contemporary healthcare services and may place greater value on modern medicine (Igyuse, et al., 2020).

A study conducted in a semi-urban community in North-Central Nigeria, found that, antenatal care

(ANC) utilization rate was 61%, yet health facility delivery rate was only 38% and postnatal care (PNC) utilization a mere 26.6%. The variables with the greatest influence on MHS utilization were educational level and occupation of the woman and their average household income. There was no correlation between maternal age or marital status on MHS utilization (Igyuse, et. al., 2020).

The utilization of maternal and child health services is influenced by various socio-economic and demographic factors, including the level of education, discrimination against women, disease patterns, and the healthcare system itself. Beyond issues like poverty, poor hygienic conditions, and restricted access to medical treatment, a significant contributor to mortality among infants (8-20% in their first year of life) and mothers is the absence of adequate healthcare. (Okpala, et. al. 2019) Utilization of maternal health care services is influenced by a range of structural and contextual factors and this required focused attention. According to a study conducted in India, the utilization of maternal health care is notably shaped by the educational achievements of women, with household wealth status standing out as a particularly significant predictor of maternal health care utilization. Additional socio-demographic factors that play a crucial role in this context include rural-urban residence, caste, religion, women's age, age at marriage, exposure to mass media, and region (Pintu & Pradip, 2020). Ensuring the effective delivery and timely use of Maternal and Child Health (MCH) services stands as a key strategy to enhance health outcomes and diminish maternal and infant mortality. Despite the positive correlation between the utilization of suitable maternal health services and enhancements in maternal and neonatal health outcomes, a mere 36% of births occur within formal health facilities in Nigeria, with approximately 63% of women opting for home births (Ogu et. al., 2023).

In a similar study conducted by Oguntimehin and Usar, (2023), they revealed that, actors that favoured the uptake of MCH services included service availability, affordable cost of care, accessibility and proximity of health facilities, and perceived good knowledge and capacity of health workers. No religious or cultural barrier to MCH service uptake was reported. Education and employment status were statistically significant determinants of ANC uptake. Religion, level of education, and employment were statistically significant predisposing determinants of having skilled birth attendance (SBA). Also, employment and educational status were statistically significant predisposing factors of immunization uptake. Financial barriers, poor knowledge of availability services, previous negative experience with service utilization, poor perception on the value of MCH services were factors limiting uptake of MCH services (Oguntimehin and Usar, 2023).

## 2.3 Theoretical Review

The health-seeking behavioural models used to conceptualize demand for maternal and child healthcare services by pregnant women is the Andersen's Health Care Utilization model (1968).

### Andersen's Health Care Utilization Model, 1968

Andersen developed this model to elucidate variations in healthcare access within the USA. According to Andersen, the utilization of healthcare is influenced by three categories of factors: predisposing factors, enabling factors, and need-based characteristics. Enabling factors or conditions facilitate the availability of health service resources to individuals. Despite having a predisposition toward health services, individuals need a means to access healthcare services. These factors encompass individual and household resources, such as income and health insurance. Additionally, community-based factors, such as the presence of healthcare centers and sufficient human resources (staff) at health institutions, act as enabling characteristics. Even with enabling factors and predisposition, individuals' decisions to seek healthcare services depend largely on need-based characteristics. When individuals assess the severity of illness or their medical condition, they choose between self or family treatment and healthcare services from professional health centers. The former is preferred when the health problem is deemed trivial, while the latter is chosen when the illness is perceived to be severe (Mupwanyiwa, et al., 2020).

Derived from the Andersen Behavioral model of healthcare utilization, the dependent variable encompasses various forms of healthcare service utilization and consumer satisfaction with healthcare use. These forms include the number of antenatal care visits, the place of delivery, and assistance during delivery, with potential health outcome measures being maternal and child mortality rates. Within this model, a range of explanatory variables, possibly available in the Nigeria Demographic Health Survey Dataset, includes age, household size and status, residential area, education, and health insurance coverage. The Andersen model serves as a robust theoretical framework for analyzing determinants of maternal healthcare services in Nigeria, offering a solid basis for establishing a set of explanatory variables in this study. It's important to note, however, that this framework may overlook the significance of distance as a factor influencing healthcare service utilization, particularly in rural areas.

## 3. Material and Methods

This is a descriptive survey of the factors influencing the utilization of maternal and child healthcare services in Kwande local government area of Benue state, Nigeria. According to the Local government demographic data, the population of women aged 15-49 years old in Kwande LGA is 125, 865 (NPC, 2018).

The research used the community as its primary unit of analysis and employed a multi-stage sampling approach. In the initial stage, two out of the four districts comprising the Kwande local government area were randomly chosen using a simple random sampling method. From these districts, a sample size of 400 respondents were selected from households in a proportional manner, considering the total number of available houses within each enumeration area. The chosen respondents were those who met the criteria relevant to the research objectives. A sample of 347 women of childbearing age in Kwande LGA was used for the study. The sample size of the study was determined using Taro Yamane's sample determination formula.

Inclusion criteria:

i. women of childbearing age between of 15 to 49 years,
ii. resides in Kwande LGA,
iii. physically and mentally stable and willing to participate in the study.

The instrument for data collection was a researcher's self-developed questionnaire. This was constructed to cover the research objectives. The questionnaire is divided into three sections: section A, B and C. Section A included covered questions on the respondents of socio-demographic characteristics, while section B and C solicited information regarding the objectives of the study. Ethical clearance was obtained from the Benue Sate Ministry of Health. The questionnaire were distributed in Kwande LGA with the aid of research assistants that have been trained on the purpose of the study, selection of the subject and interpretation of the questions. The questionnaire were shared and collected immediately. A total of 400 questionnaire were administered and 347 were properly filled, making a return rate of 87.0%. Data generated for the study were presented using frequency, percentages and cross tabulation. Analysis was done with the aid of the software statistical package for social sciences(SPSS) version 24.0.

## 4. Results and Discussion

**Table 1: Socio-Demographic variables**

| Variables | | Frequency (%) |
|---|---|---|
| **Age** | | |
| | **<25 years** | 67 (19.3) |
| | **25-34 years** | 104 (30.0) |
| | **35-44 years** | 113 (32.6) |
| | **45 and above** | 63 (18.2) |
| **Marital status** | | |
| | **Single** | 17 (4.9) |
| | **Married** | 284 (81.8) |
| | **Divorced** | 27 (7.8) |
| | **Widowed** | 19 (5.5) |
| **Highest level of Education** | | |
| | **No formal** | 23 (6.6) |
| | **Primary** | 75 (21.6) |
| | **Secondary** | 94 (27.1) |
| | **Tertiary** | 155 (44.7) |
| **Parity** | | |
| | **One** | 26 (7.5) |
| | **Two** | 131 (37.8) |
| | **Three** | 138 (39.8) |
| | **Above three** | 52 (15.0) |
| **Monthly income** | | |
| | **< 18000.00** | 21 (6.1) |
| | **18000.00-30000.00** | 61 (17.6) |
| | **31000.00- 40000.00** | 82 (23.6) |
| | **41000.00- 50000.00** | 86 (24.8) |
| | **51000.00- 60000.00** | 51 (14.7) |
| | **61000.00- 70000.00** | 27 (7.8) |
| | **>71000.00** | 19 (5.5) |

**Source:** ***Fieldwork, 2023***

The distribution of respondents across different age groups is quite diverse. The age breakdown of participants reveals that the majority fall within the 25-44 age bracket, with 30.0% falling in the 25-34 years category and 32.6% in the 35-44 years category. In contrast, a smaller percentage is younger (less than 25 years) or older (45 and above). The relatively higher representation of individuals in the 25-44 age range suggests that these individuals are more likely to be in the childbearing age group and will have more relevant and recent experiences about maternal and child healthcare ultilization services.

The majority of respondents are married (81.8%), which may have implications for family dynamics, support systems, and decision-making in the context of healthcare. The high percentage of married respondents suggests the potential influence of spousal and family in healthcare decision-making.

The majority of respondents have tertiary-level education (44.7%), followed by secondary education (27.1%). This indicates a relatively well-educated sample. The educational distribution in the sample may imply a higher level of health literacy, awareness and potential differences in healthcare-seeking behavior based on educational background.

Respondents with two and three children constitute the largest groups, at 37.8% and 39.8%, respectively. The relatively high representation of respondents with multiple children suggests the need to examine factors affecting the utilization of maternal and child healthcare services among families with more than one child. Parity may impact healthcare-seeking

behavior, especially for maternal and child health services.

The income distribution is diverse, with a significant number of respondents falling within the 41,000.00-50,000.00 income range (24.8%). Income can be a critical factor affecting healthcare utilization and it affects healthcare affordability and health outcomes.

**Research objective 1:** The level of utilization of maternal and child healthcare services in Kwande LGA, Benue State?

**Table 2: Utilization of maternal and child healthcare services N= 347**

| Items | Always (%) | Sometimes (%) | Never (%) |
|---|---|---|---|
| **>4 ante-natal contacts** | 130 (37.5) | 182 (52.4) | 35 (10.1) |
| **Child birth place is hospital** | 192 (55.3) | 128 (36.9) | 27 (7.8) |
| **Complete the continuum of maternal care** | 147 (42.4) | 185 (53.3) | 15 (4.3) |
| **PHC used for delivery** | 140 (40.3) | 185 (53.3) | 22 (6.3) |
| **I adhere to the healthcare instructions provided by nurses at the hospital** | 244 (70.3) | 97 (28.0) | 6 (1.7) |
| **Use the closest facility for my Tetanus Toxoid (TT) vaccine** | 316 (91.1) | 20 (5.8) | 11 (4.1) |
| **Use fansidar to prevent malaria** | 253 (72.9) | 25 (7.2 ) | 69 (19.9) |
| **Have utilized more than 4 child healthcare services at a point in time** | 288 (83.0) | 9 (2.6) | 50 (14.4) |

**Source:** ***Fieldwork, 2023***

Utilization of maternal health services, (37.5%) always had more than four ante-natal contacts, (52.4%) used sometimes while (10.1) never did. A majority of respondents (55.3%) always gave birth in a hospital while 27(7.8%) never did. (42.4%) respondents consistently completed the continuum of maternal care while (53.3%) had sporadic adherence to maternal care and (4.3%) never completed the continuum.

A significant number of the respondents (40.3%) always used PHC facilities for deliveries while (53.3%) used sometimes indicating potential dual healthcare utilization and only (6.3%) never used. The health education given by nurses at the PHC was always followed by (70.3%) of the respondents, (28.0%) followed sometimes while (1.7%) never did. Majority of the respondents (91.1%) always used the nearest health facility for their Tetanus Toxoid (TT) vaccine while (4.1%) never did. Fansidar given at the PHC was used by (72.9%) to prevent malaria while (19.9%) never did. Almost all the respondents (83.0%) had utilized more than 4 child healthcare services at a point in time.

**Research objective 2:** presents the determinant factors of the utilization of maternal and child healthcare services in Kwande LGA, Benue state **N347**.

**Table 3: Determinant factors utilization of MCHS**

| Determinants | Yes (%) | No (%) |
|---|---|---|
| **My husband decide when to seek antenatal care** | 115 (33.1) | 232 (66.9) |
| **My husband decide where to deliver our babies** | 130 (37.5) | 217 (62.5) |
| **Proximity of the health facility** | 280 (80.7) | 67 (19.3) |
| **Cost of services determines my ultilization of MCHS** | 278 (80.1) | 69 (19.9) |
| **Hospital bureaucracy** | 196 (56.5) | 151 (43.5) |
| **Expertise of healthcare workers at the health centres** | 178 (51.3) | 169 (48.7) |
| **Adequate health facilities and equipment** | 59(17.0%) | 288 (83.0) |
| **Social support system from friends and family** | 266 (76.7) | 81 (23.3) |
| **Cordial relations between mothers and health workers** | 196 (56.5) | 151 (43.5) |

| | | |
|---|---|---|
| **Available skilled birth attendants** | 178 (51.3) | 169 (48.7) |
| **Service satisfaction with previous delivery** | 196 (56.5) | 151 (43.5) |
| **Religious beliefs** | 288 (83.0) | 59 (17.0) |
| **Cultural beliefs** | 266 (76.7) | 81 (23.3) |
| **Extended family influence** | 288 (83.0) | 59 (17.0) |

**Source:** ***Fieldwork, 2023***

Table 3 displayed the factors that impact the utilization of maternal health services. It was observed that (33.1%) of the respondents noted that their husbands played a role in deciding when to seek antenatal care, while (37.5%) indicated that their husbands determined the location for delivery services. The influence of husbands in determining antenatal care attendance suggests the importance of involving and educating husbands about the significance of early antenatal care for maternal and child health. This perspective is prevalent due to the patriarchal structure of Nigerian society, in which the husband possesses exclusive decision-making authority concerning the health of his wife and child. Gender represents another significant determinant of healthcare service utilization. Recent research has indicated that women from specific ethnic backgrounds in Nigeria may delay seeking assistance from healthcare providers when approaching childbirth unless they secure formal consent from their husbands (Mupwanyiwa, 2020). Empowering women to make decisions about their childbirth location is crucial. Health education and awareness programs should target women and their husbands to improve decision-making. Proximity to health facility, cost of service, hospital bureaucracies, expertise, social support system, cordial relations with health workers, availability of SBAs, services satisfaction, religious and cultural beliefs and extended family influence all influenced the use of MCHS in the study area.

In summary, it can be inferred that factors such as obtaining consent from one's spouse, proximity to healthcare facilities, the financial aspect of hospital bills, hospital regulations, the competence of healthcare providers, personal support networks for mothers, health education and communication between mothers and healthcare personnel, the presence of skilled birth attendants, affordability, and contentment with previous delivery experiences all play a role in influencing maternal health services. However, the availability of adequate healthcare facilities at the health center does not appear to be a determining factor.

**Hypothesis**

**$H_0$**: There is no significant relationship between socio-demographic variables and MCHS utilization

**Table 4: Chi-Square showing the relationship between socio-demographic variables and the utilization of MCHS N = 347**

| **Socio-demographic characteristics** | | **Have Utilized More Than Four MCHS At a Point in Time (%)** | | | | **$X^2$; df; p-value** |
|---|---|---|---|---|---|---|
| | | **Used** | | **Never Used** | | |
| | | % | N | % | N | |
| **Age** | Less than 25 | 16.1 | 56 | 3.2 | 11 | 4.141; 3; 0.246 |
| | 25-34 | 24.0 | 83 | 6.1 | 21 | |
| | 35-44 | 27.7 | 96 | 4.8 | 17 | |
| | 45 and above | 13.3 | 46 | 4.8 | 17 | |
| **Marital Status** | Single | 3.7 | 13 | 1.2 | 4 | .978; 3; 0.806 |
| | Married | 67.0 | 232 | 15.0 | 52 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Divorced | 6.3 | 22 | 1.4 | 5 | |
| | Widowed | 4.0 | 14 | 1.4 | 5 | |
| **Education** | No formal education | 6.3 | 22 | 0.3 | 1 | 4.012; 3; 0.260 |
| | Primary | 17.0 | 58 | 4.8 | 17 | |
| | Secondary | 22.2 | 77 | 4.8 | 17 | |
| | Tertiary | 35.7 | 124 | 8.9 | 31 | |
| **Monthly Income** | <N18000.00 | 5.5 | 19 | 0.6 | 2 | 3.502; 6; 0.744 |
| | N18000.00- N30000.00 | 14.1 | 49 | 3.5 | 12 | |
| | N31000.00- N40000.00 | 18.4 | 64 | 5.2 | 18 | |
| | N41000.00- N50000.00 | 20.2 | 70 | 4.6 | 16 | |
| | N51000.00- N60000.00 | 12.1 | 42 | 2.6 | 9 | |
| | N61000.00- N70000.00 | 5.8 | 20 | 2.0 | 7 | |
| | >N71000.00 | 4.8 | 17 | 0.6 | 2 | |
| **Parity*** | 1 | 5.8 | 20 | 1.7 | 6 | 3.678; 3; 0.298 |
| | 2 | 30.3 | 105 | 7.5 | 26 | |
| | 3 | 31.4 | 109 | 8.4 | 29 | |
| | 4 and above | 13.5 | 47 | 1.4 | 5 | |

**Source:** ***Fieldwork, 2023***

The Chi-Square test results suggest that none of the socio-demographic variables (age, marital status, education, monthly income, and parity) have a statistically significant relationship with the utilization of More Than Four Maternal and Child Health Services at a point in time. This implies that other factors not considered in the study may play a more substantial role in determining MCHS utilization. It's important to consider other potential variables or factors that could influence healthcare utilization in future research.

### 4.1 Discussion of Major Findings

The study's results indicate that a significant portion of the respondents made use of maternal and child healthcare services. However, it's worth noting that Paul and Chouhan (2020) reported that, despite numerous national and international initiatives to enhance the utilization of maternal healthcare services, a considerable number of women still do not seek sufficient antenatal care (ANC) and postnatal care (PNC) services. According to Abbas and Walkern's research from 2017, 73% of pregnant women visited antenatal care facilities at least five times or more, whereas 97% did once. According to Mwaniki, et al. (2016), prenatal services were covered by 26% of women and 61% of those who got antenatal care reported having 3 or more visits.

The research results also revealed that the utilization of maternal health services was affected by factors such as spousal consent, proximity to healthcare facilities, financial considerations, hospital policies, healthcare worker competence, maternal support systems, communication between mothers and healthcare providers, the presence of skilled birth attendants, affordability, and maternal satisfaction with previous deliveries. Notably, the availability of adequate healthcare facilities at the health centers did not emerge as a significant influencing factor. Owumi (1993) recognized age, level of education, occupation, religious beliefs, the influence of family connections, and ethnic background as the key determinants influencing the utilization of healthcare services.

Okpala, et. al., (2019) discovered that Rural women's use of healthcare services depends on factors such as whether they know about the services, believe in their effectiveness, and can easily reach and access

them. In Rotimi-Oyedepo's research (2022), it was observed that cultural taboos, beliefs, and socio-economic factors frequently position women at a disadvantage, beginning from the onset of pregnancy and persisting through the post-delivery period. The results of this research align with those of the study conducted by Jonathan and John (2018), where the researchers discovered that factors like women's enrollment in the National Health Insurance Scheme, the proximity of health centers, and the attitudes of healthcare professionals played a significant role in determining women's utilization of maternal and child healthcare services. Pintu & Pradip, (2020) and Oguntimehin and Usar, (2023) identified that women's education, economic status, residing in urban areas, self-determination, and accessibility were considered the primary determinants of service utilization. However, this finding contradicts the results of the current study. Iacoella and Tirivayi (2019) arrived at the conclusion that wealth exhibited a positive correlation with the utilization of maternal healthcare services, a result that contrasts with the findings of this study. On the other hand, Fantaye et al. (2019) and Oguntimehin and Usar, (2023 discovered that the absence of healthcare professionals in Primary Health Centers (PHCs) and even certain hospitals posed a significant obstacle to maternal healthcare services, aligning with the results of this study.

The research findings indicated that there was no substantial connection between the utilization of maternal and child healthcare services and the demographic characteristics of the respondents. This observation aligns with the results of a study by Igyuse, et. al., (2020), which similarly reported a lack of significant relationship between socio-demographic variables and the utilization of maternal and child healthcare services among women of reproductive age. This discovery runs counter to the conclusion drawn by Akanbi and colleagues (2018), whose research indicated that the respondents' income, cultural background, and educational status exerted strong and significant influences on the utilization of maternal and child healthcare services. Additionally, Ovikuomagbe (2017) found that women with higher levels of education were more likely to use postnatal care services. Additionally, the research indicated that maternal age and living in urban areas were linked to a higher likelihood of utilizing prenatal and postnatal care services, although they did not influence the choice of a hospital or maternity home for delivery.

## 5. Conclusion and Recommendations

The key determinants of healthcare utilisation are culture, belief systems, and economic circumstances, which should be a top priority for those responsible for developing and executing government health programmes. The importance of belief systems, a comprehensive understanding of the concepts of disease, illness, and health, enhancements in the socio-economic well-being of the population, and well-structured education cannot be overstated in ensuring the maximum and most effective utilization of healthcare services. Communities, on their part, should promote awareness among their members regarding government-provided healthcare facilities and encourage their utilization. To effectively combat the issue of maternal and child mortality and morbidity, it is imperative to elevate the standard of living among the Nigerian population. Extreme poverty not only contributes to the prevalence of disease and mortality but also constitutes a primary impediment to public health delivery in Nigeria.

It is clear that Primary Health Care (PHC) in Nigeria needs to be revitalised. PHC is a basic strategy for meeting the healthcare requirements of communities, encouraging community participation in the planning and delivery of healthcare, and increasing health awareness, community mobilization, and infection prevention. PHC is highly flexible in the context of providing healthcare for mothers and children. The problems with mother and child health in rural Nigerian communities can be resolved with this integrated strategy, which is well-founded.

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