# Poverty and choice of healthcare services among women in Calabar Metropolis, Cross River State, Nigeria

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## Abstract
This study examines the impact of poverty on the healthcare service choices of women in Calabar Metropolis, Cross River State, Nigeria. Poverty remains a significant barrier to accessing healthcare services, particularly for women, as it affects their ability to afford necessary medical treatments. The study explores how factors such as educational level, income, and affordability influence healthcare choices among women. A descriptive research design was adopted, utilizing a sample of 400 women from Calabar Metropolis. The findings reveal that lower educational levels and limited income are strongly correlated with the preference for public healthcare services and traditional remedies. Additionally, high costs in private healthcare facilities discourage many women from seeking proper medical attention. This study highlights the need for targeted interventions that address both financial and educational barriers to improve healthcare access for women in poverty-stricken areas.

**Keywords:** Poverty, Healthcare services, Women, Educational level, Income, Affordability

## Introduction

From the sociological perspective, poverty is a significant determinant of health-seeking behavior, particularly in developing countries like Nigeria, where socio-economic factors profoundly influence healthcare access. Health, which extends beyond medical services to include overall well-being, is a key driver of human development and societal progress (Abdulraheem, Olapipo, & Amadu, 2012). The World Health Organisation (2024) asserts that an individual's health status directly influences their ability to participate in societal development, making health a critical component of societal stability. The choice of healthcare services is shaped by several factors, with poverty being one of the most influential. The economic status of individuals often determines their ability to access healthcare services, and poverty limits their options (Tzenios, 2019). Research by Oluchi, Manaf, Ismail, and Udeani (2019) highlights how community health status can influence the availability and utilization of health services in a locality. However, healthcare utilization is also influenced by socio-cultural factors, economic conditions, and political stability. In many developing countries, poverty creates a breeding ground for disease and mortality, making it difficult for individuals to access adequate healthcare (Chowdhury & Ravi, 2022). This challenge is not limited to developing nations but also affects developed societies, such as the United States, where poverty remains a barrier to healthcare access despite public programs aimed at reducing it (Katherine, 2018).

In Nigeria, healthcare services are the responsibility of all three tiers of government, alongside non-governmental organizations and private entities. Despite increased public expenditure on healthcare, the utilization of services remains low, particularly among the poor. Agha (2000) argues that the low utilization of healthcare services in Nigeria is primarily due to the economic constraints faced by individuals. Joweth (2016) emphasizes that understanding factors like poverty is essential for improving healthcare access, as households often allocate a significant portion of their resources to healthcare, leaving little for other needs. This financial burden can deter individuals from seeking care, especially when it involves high out-of-pocket costs. Studies by Njimanted, Yakum and Mbohjim (2017) reveal that poverty accounts for a substantial percentage of mortality in developing countries. In Nigeria, differential access to healthcare remains a critical problem, with the poor often unable to afford or access necessary services (Nnonyelu & Uche, 2014). Poverty not only leads to poor health outcomes but also exacerbates the cycle of poverty, as those who are ill struggle to secure the resources needed to improve their condition (Sorsha, 2018). This relationship between poverty and health is a

global concern, with the World Bank estimating that in 2015, over 736 million people lived on less than $1.90 per day, many of whom are in developing countries (World Bank, 2018).

The link between poverty and health is also evident in the rural poor, who often face even greater challenges in accessing healthcare. As noted by Catherine and Sebean (2017), poverty implies a lack of resources to seek medical services, contributing to widespread health inequities. The United Nations has long recognized the relationship between poverty and health, setting Millennium Development Goals in 2000 and later Sustainable Development Goals in 2015 to address extreme poverty and promote health equity. These goals underscore the need for poverty alleviation at the grassroots level to improve health outcomes (O'Donnell, 2024). Poverty also hinders access to reliable healthcare services, as individuals with limited resources often seek low-quality care due to financial constraints. Moreover, poverty fosters illiteracy and limited health knowledge, which further exacerbates health challenges. In this context, understanding the role of poverty in healthcare choices is critical for addressing health disparities and improving health outcomes, particularly for women in Calabar Metropolis, Cross River State, Nigeria.

**Statement of problem**

Poverty remains a significant barrier to women's access to quality healthcare, particularly in developing countries where healthcare systems are under-resourced. Despite the World Health Organization's push for universal health coverage since 2005, low-income countries (LICs) continue to face challenges in achieving these goals, resulting in poor healthcare outcomes, especially for women. Studies by Spencer, Adipa, Baker, et al. (2023) highlight that high healthcare costs and inadequate health systems in LICs lead to poor service delivery and increased mortality rates, with poverty exacerbating these issues. In Nigeria, for instance, poverty-driven factors like the inability to afford treatment, the sale of household assets, and the withdrawal of children from school to cover medical expenses contribute to poor health outcomes for women (Spencer, Adipa, Baker, et al., 2023). Poverty affects women’s health choices in multiple ways. Financial constraints often dictate whether women can access healthcare services, with many unable to afford essential treatments, particularly for reproductive health. According to O'Donnell (2024), low-income women face additional barriers, such as complex billing systems, lack of assertiveness due to low self-esteem, and unwelcoming attitudes from healthcare providers, all of which discourage them from seeking care. The lack of healthcare access further leads to increased morbidity and mortality among women, particularly in rural areas where healthcare infrastructure is scarce.

Additionally, non-financial barriers such as stigma and cultural beliefs compound the problem. Anarfi, Badasu, Yawson, et al. (2016) found that in Ghana, religious beliefs significantly influenced health-seeking behavior, with many women opting for prayer houses or traditional healers rather than medical professionals. Such cultural preferences, combined with poverty, restrict women's healthcare choices, particularly when they cannot afford formal medical care. Although existing research has examined the broader impact of poverty on health outcomes, there is a lack of focused studies on how poverty specifically affects women's healthcare choices in low-income settings. The knowledge gap remains in understanding the unique challenges women face, particularly in relation to reproductive health services, where cultural, financial, and systemic barriers intersect. This study aims to fill this gap by exploring how poverty influences women’s healthcare choices, particularly in relation to reproductive health, and to identify the socio-cultural, economic, and systemic factors that limit access to care.

## Research Questions

1. How does educational level influence the choice of healthcare services among women in Calabar metropolis of Cross River State?
2. How does income level affect the choice of healthcare services among women in Calabar metropolis of Cross River State?
3. How does affordability impact the choice of healthcare services among women in Calabar metropolis of Cross River State?

## Research Objectives

1. To examine the relationship between the educational level of women and their choice of healthcare services in Calabar metropolis of Cross River State.
2. To investigate the effect of income level on women's choice of healthcare services in Calabar metropolis of Cross River State.
3. To assess how affordability influences the choice of healthcare services among women in Calabar metropolis of Cross River State.

## Hypotheses (Null)

1. There is no significant relationship between the educational level of women and their choice of healthcare services in Calabar metropolis of Cross River State.
2. There is no significant effect of income level on the choice of healthcare services among women in Calabar metropolis of Cross River State.
3. There is no significant impact of affordability on the choice of healthcare services among women in Calabar metropolis of Cross River State.

## Literature review

### *Educational level and access to healthcare services*

Education is a unique variable to healthcare services in a developing society like Nigeria. Educational level significantly influences access to healthcare services, particularly in developing countries like Nigeria. Education enhances individuals' ability to acquire health-related information, thus improving health awareness (Cesur, Dursun, & Mocan, 2014). It is well-established that education and health are closely linked, with higher education correlating with better health outcomes (World Health Organization [WHO], 2008). Education positively impacts health by increasing knowledge of health conditions, treatment options, and healthy behaviors, contributing to improved decision-making regarding healthcare (Raghupathi, & Raghupathi, 2020). Conversely, low education levels often result in poorer health outcomes, including smoking, poor nutrition, and substance abuse, which negatively affect healthcare choices (Zajacova & Lawrence, 2018). Studies show that education can also influence women's healthcare decisions. For instance, women with higher educational attainment are more likely to be aware of family planning methods and use contraceptives, contributing to better reproductive health (Nonvigon & Nonvigon, 2014). Furthermore, education fosters better health management skills, enabling individuals to make informed decisions about lifestyle and healthcare services. The relationship between education and healthcare is evident in various global contexts, such as Romania's education expansion, which improved both educational attainment and healthcare access (Wim & Maassen, 2006). Moreover, education serves as a

determinant of health, as it is associated with income, job opportunities, and overall quality of life (UN, 2003).

Higher educational levels are linked to better economic outcomes, which in turn, provide greater access to healthcare services. The positive impact of education on health extends to mental health, with educated individuals being better equipped to manage stress and health conditions (Institute of Public Health, 2008). In the context of reproductive health, education plays a crucial role in child spacing and family planning. Educated women are more likely to engage in family planning practices, leading to better maternal health outcomes (Olivera & Cedomir, 2006). However, disparities in education levels can create significant barriers to the use of contraceptives and other reproductive health services, particularly in rural areas (Mason, 2010). As a result, public health interventions targeting education are critical to improving healthcare access and outcomes, particularly for women and children in underserved communities.

***Income and choice of healthcare services***

The choice and place of healthcare services of an individual is the function of an individual's economic status and financial position. Income plays a significant role in the choice of healthcare services, influencing both access and quality of care. A study by Odekunle (2016) revealed that poverty is a major factor behind maternal mortality, with 36,000 women dying annually in Nigeria due to complications during pregnancy and childbirth, many of whom use Traditional Birth Attendants (TBAs) due to financial constraints. These women, despite seeking antenatal care, often rely on unskilled midwives for delivery because of the cost of healthcare services. Ndikom, Ojoye, and Nkwonte, (2017) found that 38.5% of women choose TBAs because they are cheaper, and 46.2% find them more accessible. However, many women are aware of skilled birth attendants but avoid them due to high costs and negative perceptions of healthcare providers' attitudes. Alabi (2018) asserts that a family's economic status influences reproductive health decisions, including the number and timing of children. Mardiana, San, and Khatijah (2015) observed that large family sizes, often resulting from high fertility rates, increase economic challenges. Ejembi, Tukur, and Aliyu, (2015) also highlighted the impact of family income on decisions regarding family size, child spacing, and reproductive health. Ujiro (2012) noted that income often correlates with fertility rates, with lower-income households experiencing higher fertility rates due to financial constraints and cultural beliefs.

In low-income families, the physical, emotional, and mental health of women can be compromised, especially during pregnancy and child-rearing. D'Souza, Bailey, Stephenson, and Oliver (2022) argue that income directly influences contraceptive use and family planning decisions. Low-income mothers often lack time for rest and sufficient nutrition, leading to maternal morbidity and increased infant mortality rates. The economic strain often results in depression and lack of interest in sexual health, perpetuating the cycle of poverty and large family sizes. Alabi (2018) noted that the Nigerian healthcare system blends public and private providers, with the majority of women lacking health insurance. Consequently, many opt for affordable, though substandard, care. A study by Lloyd (2008) revealed that both income and distance from healthcare facilities deter individuals from seeking modern medical care. Nahu (2002) further asserted that income is the primary determinant in healthcare utilization, with poverty being the leading factor in not seeking treatment. The World Health Organization (WHO) has recommended that governments of developing countries should consider new ways of increasing their revenues, including imposing or enhancing taxes on tobacco and alcoholic beverages, sugary drinks and others to promote the reduction of the cost of accessing medical

health care services and improve the access of the people to enhance equal access to health care services.

### *Affordability and choice of health care services*

Affordability and healthcare utilization are closely tied to the economic status of individuals, particularly in developing countries. Affordable preventive healthcare can benefit underserved rural populations. Chernew, Fendrick, Glied, et al. (2023) noted that healthcare services are often unaffordable globally, prompting the introduction of health insurance. Their study revealed that in South Africa, income levels influence patients' choice of healthcare facilities, making access unaffordable for low-income individuals. Universal Health Coverage (UHC) aims to ensure access to promotive, preventive, curative, rehabilitative, and palliative health services without financial hardship, emphasizing government responsibility to make healthcare accessible regardless of purchasing power. Achieving affordability requires reducing costs, retaining a well-regulated workforce, and facilitating access to essential medicines at affordable prices (Chernew et al., 2023).

Community-based health insurance schemes can improve affordability for rural populations. Campbell, Buchan, Cometto, et al. (2013) found that such schemes in Ghana were flexible, responsive, and rooted in solidarity, enhancing access for low-income groups. Similarly, Obansa and Orimisan (2013) highlighted affordability challenges in Nigeria, where healthcare remains inaccessible to many, particularly rural women. Despite its importance to societal growth, the Nigerian healthcare system struggles with high costs. Fifty years post-independence, basic health services remain unattainable for a large segment of the population due to financial barriers (Obansa & Orimisan, 2013). The World Health Organization (WHO, 2005) recommended health sector reforms to reduce costs and improve service delivery. These reforms emphasize leadership, coordination, and legal frameworks to manage public health emergencies, such as the Ebola outbreak in Nigeria. They also advocate for violence prevention, reduction of maternal and child health risks, and increased access to affordable medicines. In 2004, the Nigerian government introduced the National Economic Empowerment and Development Strategy (NEEDS) to address affordability issues and improve health outcomes. This reform included health education as a critical tool for building human capacity. Despite these efforts, Nigeria's health system ranked 191 out of 201 nations in the WHO's evaluation due to persistent high costs and poor performance. Obansa and Orimisan (2013) argued for radical reforms, clear goals, and effective monitoring to track resource use and improve health service affordability, ultimately reducing infant mortality and enhancing population wellbeing.

## Theoretical Framework

### *Health Belief Model (HBM)*

The theory is one of the most commonly used theories in health discussion and health analysis with regards to the individuals' response to health seeking behaviour in a particular culture. The theory was developed by Godfrey Hochbaum, Irwin Rosenstock, and Stephen Kegels (1952) the HBM assumed that the knowledge of individuals state of psychical , mental and emotional wellbeing and choice of health services is influenced by the value and belief system of the individual which include interest and concern about health. The model notes that it is the beliefs and values of the individual that will shape the perceptions and responses to the situation of health and illness concern. Although, there are other intervening variables that influence the individual health seeking perception like demographic, socio-psychological and structural determinants. The use of health facilities and others services can also shape the individuals mind towards health. The shortfall of the theory is that the theorist never considered

some intervening variables in the choice of healthcare services. The theory is therefore apt in providing deep understanding to the work, hence the theory is adopted.

### *Rational Choice Theory*

Rational choice theory was pioneered by sociologist George Homans, who in 1961 laid the basic framework for exchange theory, which he grounded in hypotheses drawn from behavioral psychology. The basic assumption of the theory is that individuals rely on rational calculations to achieve outcomes that are in line with their personal objectives. These decisions provide people with the greatest benefit or satisfaction given the choices available, and are also in their highest self interest (Akhilesh Ganti, 2019). The theory assets that economic plays a huge role in human behavior. That is, people are often motivated by money and the possibility of making a profit, calculating the likely costs and benefits of any action before deciding what to do. According to this theory, individuals are motivated by their personal wants and goals and are driven by personal desires. Since it is not possible for individuals to attain all of the various things that they want, they must make choices related to both their goals and means of attaining those goals. In relating this theory to the study, individuals must anticipate the outcomes of their courses of action in relation to their choice of healthcare and calculate which action will be best for them. (Ashley Crossman, 2019). The shortfall of this theory is the assumption that individuals simply base their actions on calculations for personal profit. This is not always the case as sometimes people choose to do things that will benefit others more than themselves. Critics have pointed out that individuals do not always make rational utility-maximizing decisions. However, the theory is adopted for the work due to its relevance and relation to the study.

## Methodology

### *Research design*

This study adopts a descriptive research design, this is because this design allows for random sample and attempts to answer research questions like why is the population behaving or reacting in a particular way, what has been the changes in the population and close observation of respondents in the study. The design is also apt because it allows for discussion of particular issues within the people like poverty and choice of healthcare service.

### *Area of the study*

The study area was Calabar Metropolis also referred to as “Canaan city” and the capital of Cross River State. It is located in the coastal part of south-eastern Nigeria. The original native Efik name for Calabar Metropolis was AkwaAkpa. The city is watered by the Calabar and Great Kwa Rivers and Creeks of the Cross River State. The city is divided into Calabar Municipal and Calabar South Local Government Areas. It has an area of 406km2 and population of 461,796. It lies between latitude 500 321 and 400 221 North and longitude 700 501 and 900 281 East. It is bounded by Akamkpa Local Government Area in the North and Odukpani Local Government Area in the East. Its shores are bounded by the Calabar River that extends to the Republic of Cameroon. The area hosts a federal and State University and other public institutions. The people are predominately farmers.

### *Population and sample of the study*

The study population according to (2006) Census is 105, 822 (One Hundred and Five Thousand, Eight Hundred and Twenty-Two) of which the sample of the study was drawn. A total sample of 400 women was use for the study in Calabar Metropolis of Cross River state, Nigeria. The sample is to be taken through the Taro Yamanes (1967) sample size frame work procedures.

### *Sampling technique*

The study employed purposive and simple random sampling techniques. In the first stage, electoral wards in the study area (wards 1-10) were selected using a simple random sampling technique (balloting). From these, five wards were chosen. Subsequently, 40 women from each selected ward were identified using purposive sampling. This approach was aimed at gathering specific information on poverty and the choice of healthcare services among women.

### *Instrument of data collection*

The instrument to be considered most apt for data collection in this study is questionnaire (Likert Scale Questionnaire). It would be split into three sections A, B & C. Section "A" has items on the respondents personal bio data such like: age, educational level etc. while section "B" used the 4-point Likert-scale which is counted in positive rating scale, "SA" for strongly Agree, "A" for agree, "D" for disagree and "SD" for strongly disagree. It contained items covering variables of the study. Items to be measures on different sub-scales 1, 2, 3 and 4 which include; educational level, income level, affordability and poverty level.

### *Method of data analysis*

Two methods of data analysis was used; simple percentages and Pearson product moment correlation coefficient. The simple percentage (%) method would be used for data presentation and analysis. While Pearson product method correlation analysis was the statistical method for testing each hypothesis of the study. This is because the researcher is determined to know the degree of relationship between Socio-cultural factors and poverty in the choice of healthcare services. The data was analyzed hypothesis by hypothesis at a significant level of 0.05 (error limit of the study) and the result was presented in tables.

## Data presentation, analysis and discussion of findings

### *Data presentation*

**Table 1: Demographic data of respondents**

| S/N | Variables | Indicators | No's of Resp. | % |
|---|---|---|---|---|
| | Age | 18 – 27 | 21 | 5.25 |
| | | 28 – 37 | 74 | 18.5 |
| | | 38 – 47 | 128 | 32.0 |
| | | 48 – 57 | 127 | 31.75 |
| | | 58 - 67 | 38 | 9.5 |
| | | 68- Above | 12 | 3 |
| | | No response | 0 | 0 |
| | Educational qualification | FSLC | 34 | 8.5 |
| | | SSCE | 261 | 65.25 |
| | | Graduate | 89 | 22.25 |
| | | Informal education | 5 | 1.25 |
| | | No response | 11 | 2.75 |
| | Income level (Monthly) | <10,000 | 0 | 0.0 |
| | | 10,000 – N50, 000 | 44 | 11.00 |
| | | 50,000 - N100, 000 | 299 | 74.75 |
| | | >100,000 | 57 | 14.25 |
| | | No response | 0 | 0.0 |
| | No. of Children | 0-2 | 101 | 25.25 |
| | | 3-5 | 263 | 65.75 |

| | | | |
|---|---|---|---|
| | 6-8 | 33 | 8.25 |
| | 9- above | 3 | 0.75 |
| | No response | 0 | 0.0 |
| Religious belief | Christianity | 394 | 98.50 |
| | Islam | 2 | 0.50 |
| | African (ATR) | 0 | 0.0 |
| | Others | 4 | 1.0 |
| | No response | 0 | 0.0 |

**Source:** *Researcher's compilation, 2019*

In Table 1, the demographic data of respondents show women aged 18–27 years were 21 (5.25%); 28–37 years, 74 (18.5%); 38–47 years, 128 (32%); 48–57 years, 127 (31.75%); and 58–67 years, 40 (10%). Women aged 68 years and above were 12 (3%). The mean age was 51± (69–18 years), and the modal age was 42 years. Regarding educational qualifications, 34 (8.5%) had FSLC, 261 (65.25%) had SSCE, 89 (22.25%) were graduates, 5 (1.25%) had informal education, and 11 (2.75%) did not specify. Income data show 44 (11%) earned N10,000–N50,000 monthly, 299 (74.75%) earned N50,000–N100,000, and 57 (14.25%) earned above N100,000. For number of children, 101 (25.25%) had 0–2 children, 263 (65.75%) had 3–5 children, and 33 (8.25%) had 6–8 children, while 3 (0.75%) had more than 9. Regarding religion, 394 (98.5%) were Christians, 2 (0.5%) Muslims, and 4 (1%) belonged to other faiths.

**Table 2: Responses on educational level and choice of healthcare services**

| S/N | Questions | SA | A | U | D | SD |
|---|---|---|---|---|---|---|
| 6 | Highly educated women do not seek healthcare services in Primary Healthcare Centres (PHCs) | 194 (48.5) | 103 (25.75) | 3 (0.75) | 64 (16) | 36 (9) |
| 7 | Less educated women cannot afford healthcare services in teaching hospitals | 205 (51.25) | 98 (24.5) | 7 (1.75) | 50 (12.5) | 40 (10.0) |
| 8 | Level of education does not determine a woman's choice of healthcare services | 267 (66.75) | 123 (30.75) | 0 (0) | 6 (1.5) | 4 (1.0) |
| 9 | Illnesses associated with highly educated women do not require healthcare services from PHCs | 172 (43) | 149 (37.25) | 5 (1.25) | 41 (10.25) | 33 (8.25) |
| 10 | PHCs are for less educated women while teaching hospitals for the highly educated women | 181 (45.25) | 177 (44.25) | 2 (0.50) | 28 (7) | 12 (3) |

Source: *Researcher's compilation, 2019*

Table 2 presents responses on educational level and healthcare service choices among women in Calabar Metropolis, Cross River State. For the statement "highly educated women do not seek healthcare services in PHCs," 194 (48.5%) strongly agreed, 103 (25.75%) agreed, 64 (16%) disagreed, and 36 (9%) strongly disagreed, with 3 (0.75%) non-responses. Regarding "less educated women cannot afford tertiary healthcare services," 205 (51.25%) strongly agreed, 98 (24.5%) agreed, 50 (12.5%) disagreed, 40 (10%) strongly disagreed, and 7 (1.75%) did not respond. For "education level does not determine healthcare choice," 267 (66.75%) strongly agreed, 123 (30.75%) agreed, 6 (1.5%) disagreed, and 4 (1%) strongly disagreed. On "illnesses of highly educated women not requiring PHCs," 172 (43%) strongly agreed, 149

(37.25%) agreed, 41 (10.25%) disagreed, and 33 (8.25%) strongly disagreed, with 5 (1.25%) non-responses. Lastly, for "PHCs are for less educated women," 181 (45.25%) strongly agreed, 177 (44.25%) agreed, 28 (7%) disagreed, and 12 (3%) strongly disagreed, with 2 (0.5%) non-responses.

**Table 3: Responses on income level and choice of healthcare services**

| S/N | Questions | SA | A | U | D | SD |
|---|---|---|---|---|---|---|
| 11 | Women from rich families do not seek healthcare services from PHCs | 174 (43.5) | 120 (30) | 6 (1.5) | 59 (14.75) | 41 (10.25) |
| 12 | Poor women cannot afford healthcare services in tertiary healthcare institutions like teaching hospitals | 200 (50) | 103 (25.75) | 0 (0.0) | 57 (14.25) | 40 (10.0) |
| 13 | Middle class women seek healthcare services from secondary healthcare centres like the General hospitals. | 250 (62.5) | 130 (32.5) | 6 (1.5) | 10 (2.5) | 4 (1.0) |
| 14 | Extremely poor women seek healthcare services from traditional healthcare practitioners | 172 (43) | 136 (34) | 9 (2.25) | 44 (11) | 39 (9.75) |
| 15 | Wealthy women do not seek healthcare services from traditional healthcare givers | 180 (45) | 166 (41.5) | 10 (2.5) | 28 (7) | 16 (4) |

Source: *Researcher's compilation, 2019*

Table 3 presents responses on income level and healthcare service choices among women in Calabar Metropolis, Cross River State. For the statement "women from rich families do not seek care from PHCs," 174 (43.5%) strongly agreed, 120 (30%) agreed, 59 (14.75%) disagreed, and 41 (10.25%) strongly disagreed, with 6 (1.25%) non-responses. Regarding "poor women cannot afford tertiary healthcare services," 200 (50%) strongly agreed, 103 (25.75%) agreed, 57 (14.25%) disagreed, and 40 (10%) strongly disagreed. For "middle-class women seek care from general hospitals," 250 (62.5%) strongly agreed, 130 (32.5%) agreed, 10 (2.5%) disagreed, and 4 (1%) strongly disagreed, with 6 (1.5%) non-responses. On "extremely poor women seeking traditional healthcare," 172 (43%) strongly agreed, 136 (34%) agreed, 44 (11%) disagreed, and 39 (9.75%) strongly disagreed, with 9 (2.25%) non-responses. Lastly, for "wealthy women avoiding traditional healthcare," 180 (45%) strongly agreed, 166 (41.5%) agreed, 28 (7%) disagreed, and 16 (4%) strongly disagreed, with 10 (2.5%) non-responses.

**Table 4: Responses on affordability and choice of healthcare services**

| S/N | Questions | SA | A | U | D | SD |
|---|---|---|---|---|---|---|
| 16 | Most women seek healthcare services from PHCs because they cannot afford the pay the charges in other places | 170 (42.5) | 116 (29) | 0 (0) | 68 (17) | 46 (11.5) |
| 17 | The charges in tertiary healthcare facilities make most women to seek treatments elsewhere | 195 (48.75) | 98 (24.5) | 5 (1.25) | 56 (14) | 46 (11.5) |
| 18 | Women who cannot afford hospital bills often choose home remedy | 277 (69.25) | 109 (27.25) | 0 (0) | 9 (2.25) | 5 (1.25) |

| | | | | | | |
|---|---|---|---|---|---|---|
| 19 | The inability of most women to afford healthcare bills has led to many preventable deaths | 160 (40) | 145 (36.25) | 9 (2.25) | 43 (10.75) | 43 (10.75) |
| 20 | The inability of most women to afford healthcare bills also affect children and families | 191 (47.75) | 160 (40) | 2 (0.50) | 28 (7) | 19 (4.75) |

Source: *Researcher's compilation, 2019*

Table 4 presents responses on affordability and healthcare service choices among women in Calabar Metropolis, Cross River State. For the statement "most women seek PHCs due to unaffordable charges in well-equipped hospitals," 170 (42.5%) strongly agreed, 116 (29%) agreed, 68 (17%) disagreed, and 46 (11.5%) strongly disagreed. Regarding "high charges in tertiary healthcare facilities," 195 (48.75%) strongly agreed, 98 (24.5%) agreed, 56 (14%) disagreed, and 46 (11.5%) strongly disagreed, with 5 (1.25%) non-responses. On "women opting for home remedies due to unaffordable hospital bills," 277 (69.25%) strongly agreed, 109 (27.25%) agreed, 9 (2.25%) disagreed, and 5 (1.25%) strongly disagreed. For "inability to afford healthcare bills causing preventable deaths," 160 (40%) strongly agreed, 145 (36.25%) agreed, 43 (10.75%) disagreed, and 43 (10.75%) strongly disagreed, with 9 (2.25%) non-responses. On "affordability issues affecting children and families," 191 (47.75%) strongly agreed, 160 (40%) agreed, 28 (7%) disagreed, and 19 (4.75%) strongly disagreed.

**Data analysis (test of hypotheses)**

To identify the relationship between poverty and choice of healthcare services among women in Calabar metropolis, data obtained from field were tested against the hypotheses formulated in order to determine the findings of the study. The hypotheses were stated in null and alternate forms and tested using Pearson Product Moment Correlation (PPMC) Coefficient. The general principle guiding analysis in PPMC holds that the calculated outcome must not be more than 1:

*1 = Perfect positive correlation*
*-1= Perfect negative correlation*
*0 = Negative Correlation*

**PPMC Formula:**

$$r = \frac{N\Sigma xy - (\Sigma x)(\Sigma y)}{\sqrt{[N\Sigma x^2 - (\Sigma x)^2][N\Sigma y^2 - (\Sigma y)^2]}}$$

Where:

- $N$ = number of pairs of scores
- $\Sigma xy$ = sum of the products of paired scores
- $\Sigma x$ = sum of x scores
- $\Sigma y$ = sum of y scores
- $\Sigma x^2$ = sum of squared x scores
- $\Sigma y^2$ = sum of squared y scores

**Hypothesis one**

*Null*: There is no significant relationship between educational level and choice of health care services among women in Calabar metropolis, Cross River State, Nigeria.

*Alternate*: There is a significant relationship between educational level and choice of health care services among women in Calabar metropolis, Cross River State, Nigeria.

This hypothesis was tested using Pearson Product Moment Correlation (PPMC) at 0.05 level of significance, in order to ascertain whether there is a relationship between educational level and choice of healthcare services among women in Calabar metropolis, Cross River State, Nigeria. This hypothesis was tested using responses from questions 6, 7, 8, 9 & 10 plotted in table 2. The table measures education and choice of healthcare services. The result of this hypothesis is presented in table 5.

**Table 5: Pearson Product Moment Correlation analysis measuring relationship between educational level and choice of healthcare services N = 400**

| Variables | ∑x<br>∑y | $\sum x^2$ 26.65<br>$\sum y^2$ 27.57 | ∑XY | r |
|---|---|---|---|---|
| Educational level (x) | 314 | | | |
| | | | 6,469.2 | 0.96 |
| Choice of health care services (y) | 1,669 | | | |

*Significance: 0.05 (One-tailed); Df –398; Critical Value – 0; N= 400*

**Decision:**

At 0.05 level of significance and 398 degrees of freedom, the *r*-cal value of 0.96 predicts that there is a perfect negative correlation between educational level and choice of healthcare services among women in Calabar metropolis, Cross River State, Nigeria. With this outcome, the alternate hypothesis was rejected, allowing the null hypothesis to be accepted. This hypothesis states that there is no significant relationship between educational level and choice of healthcare services among women in Calabar metropolis, Cross River State, Nigeria.

**Hypothesis two**

*Null*: There is no significant relationship between income and choice of health care services among women in Calabar metropolis, Cross River State, Nigeria.

*Alternate*: There is a significant relationship between income level and choice of health care services among women in Calabar metropolis, Cross River State, Nigeria.

This hypothesis was tested using Pearson Product Moment Correlation (PPMC) at 0.05 level of significance, in order to ascertain the relationship between income level and choice of healthcare services among women in Calabar metropolis, Cross River State, Nigeria. This hypothesis was tested using responses from questions 11, 12, 13, 14 & 15 plotted in table 3. The table measures income level and choice of healthcare services among women in Calabar metropolis, Cross River State, Nigeria. The result of this hypothesis is presented in table 6.

**Table 6: Pearson Product Moment Correlation table measuring income level and choice of healthcare services N = 400**

| Variables | ∑x<br>∑y | $\sum x^2$ 25.21<br>$\sum y^2$ 26.51 | ∑XY | Ґ |
|---|---|---|---|---|
| Income level (x) | 338 | | | |
| | | | 5051.68 | 0.95 |
| Choice of health care services (y) | 1,631 | | | |

*Significance: 0.05 (One-tailed); Df –398; Critical Value – 0; N= 400*

**Decision:**

At 0.05 level of significance and 398 degrees of freedom, the *r*-cal value of 0.95, which is <1 predicts that there is a perfect negative correlation between income level and choice of healthcare services among women in Calabar metropolis, Cross River State, Nigeria. With this outcome, the alternate hypothesis was rejected, allowing the null hypothesis to be accepted.

This hypothesis states that there is no significant relationship between income level and choice of healthcare services among women in Calabar metropolis, Cross River State, Nigeria.

**Hypothesis three**

*Null*: There is no significant relationship between affordability and choice of health care services among women in Calabar metropolis, Cross River State, Nigeria.

*Alternate*: There is a significant relationship between affordability and choice of health care services among women in Calabar metropolis, Cross River State, Nigeria.

This hypothesis was tested using Pearson Product Moment Correlation (PPMC) at 0.05 level of significance, in order to determine the degree of relationship between affordability and choice of healthcare services among women in Calabar metropolis, Cross River State, Nigeria. This hypothesis was tested using responses from questions 16, 17, 18, 19 & 20 plotted in table 4. The table measured affordability and choice of healthcare services among women in Calabar metropolis, Cross River State, Nigeria. The result of this hypothesis is presented in table 7.

**Table 7: Pearson Product Moment Correlation table showing relationship between affordability and choice of healthcare services N = 400**

| Variables | ∑x<br>∑y | $\sum x^2$ 28.21<br>$\sum y^2$ 29.17 | ∑XY | r |
|---|---|---|---|---|
| Affordability (x) | 363 | | | |
| | | | 7063.6 | 0.96 |
| Choice of health care services (y) | 1,621 | | | |

*Significance: 0.05 (One-tailed); Df –398; Critical Value – 0; N= 400*

**Decision:**

At 0.05 level of significance and 398 degrees of freedom, the *r*-cal value of 0.96 shows that there is a perfect negative correlation between affordability and choice of healthcare services among women in Calabar metropolis, Cross River State, Nigeria. With this outcome, the alternate hypothesis was rejected, allowing the null hypothesis to be accepted. This hypothesis states that there is no significant relationship between affordability and choice of healthcare services among women in Calabar metropolis, Cross River State, Nigeria.

**Discussion of findings**

The main objective of this study is to investigate the relationship between poverty and choice of healthcare services among women in Calabar metropolis, Cross River State, Nigeria. Total of 400 respondents were randomly and carefully selected among women in Calabar metropolis for the study and administered a 15-item structured questionnaire.

***Hypothesis one***

The hypothesis tested whether there is no significant relationship between educational level and choice of healthcare services among women in Calabar Metropolis, Cross River State. Using Pearson Product Moment Correlation at 398 degrees of freedom and a 0.05 significance level, the result (r-cal = 0.96 < 1.00) supported the null hypothesis. This indicates a perfect negative correlation, implying that educational level does not significantly determine healthcare choices in Calabar Metropolis. This finding contrasts with earlier studies by Asenso-Okyere et al. (1997) and Dzator and Asafu-Adjaye (2004), which found education as a key determinant of healthcare choice due to increased awareness and knowledge. However, it aligns with Nketiah-Amponsah and Hiemenz (2009), who observed that less-educated individuals in rural Ghana predominantly used traditional healthcare due to limited knowledge

and affordability. Similarly, Thorsen and Pouliot (2015) argued that the preference for non-allopathic medicine often stems from poverty rather than education alone.

***Hypothesis two***

This hypothesis tested whether there is no significant relationship between income level and choice of healthcare services among women in Calabar Metropolis, Cross River State. Using Pearson Product Moment Correlation at 398 degrees of freedom and a 0.05 significance level, the r-cal value of 0.95 (< 1.00) indicated a perfect negative correlation. Thus, the null hypothesis was accepted, confirming that income level does not significantly influence healthcare choices in the study area. This aligns with findings by Sepehri et al. (2008), who observed that income is not always a determinant of healthcare choice in societies with functional healthcare systems, where socioeconomic factors like poverty and distance play a more significant role. However, studies in India, Indonesia, and Thailand (Levine et al., 2013; Seeberg et al., 2014) revealed that income significantly influences healthcare choices, particularly among the rural poor, who prefer traditional healers over allopathic medicine due to affordability. In Nigeria, traditional healing often remains a preferred option for rural communities, despite access to the National Health Insurance Scheme (NHIS).

***Hypothesis three***

This hypothesis tested the relationship between affordability and choice of healthcare services among women in Calabar Metropolis, Cross River State. Using Pearson Product Moment Correlation at 398 degrees of freedom and a 0.05 significance level, the r-cal value of 0.96 (< 1.00) revealed a perfect negative correlation. Consequently, the null hypothesis was accepted, indicating no significant relationship between affordability and healthcare choice in the study area. This finding aligns with Bordogna, Gentiluomo, and Di Sarsina (2013), who found that many Italians utilize non-conventional medicine, not solely due to affordability concerns but influenced by cultural and personal preferences. However, Stellenberg (2015) observed a significant relationship between affordability and healthcare use in South Africa, citing poverty as a barrier to accessing healthcare for vulnerable populations. The findings from Calabar align with the Health Belief Model, suggesting that cultural factors, such as food taboos and traditional beliefs, may outweigh affordability in influencing healthcare choices.

**Conclusion and recommendations**

This study investigated the relationship between educational level, income level, and affordability on the choice of healthcare services among women in Calabar Metropolis, Cross River State, Nigeria. The findings revealed that there is no significant relationship between educational level and healthcare choice, as women in the area do not prioritize educational attainment when selecting healthcare services. Similarly, there was no significant relationship between income level and healthcare choice. This indicates that financial status does not solely determine healthcare preferences, with some women choosing private healthcare for reasons beyond cost, such as prestige or perceived quality. Lastly, the study found no significant relationship between affordability and healthcare choice, further emphasizing that factors like illness type, cultural beliefs, or personal preferences often override cost considerations. These findings challenge the assumption that socioeconomic factors like education, income, and affordability are the primary determinants of healthcare utilization. Instead, they highlight the role of non-economic factors, including cultural and personal preferences. The study emphasises the need for healthcare policies and interventions that address these underlying factors to ensure equitable access to quality healthcare services. This conclusion contributes to understanding health-seeking behaviors and provides a basis for improving healthcare delivery in Calabar Metropolis and similar contexts.

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

1. The Federal and States' Ministries of Health should in collaboration with the National Orientation Agency (NOA) create and sustain a media campaign to educate low and middle income women on the need to participate in free healthcare screening services in public hospitals as a platform to ascertain their health status irrespective of their financial status.
2. The Cross River State Ministry of Health and the Nigerian Medical Association (NMA) should synergize towards ensuring that traditional medicine is incorporated into the orthodox healthcare system, in order to ensure that patients with health conditions requiring traditional healing are also able to access healthcare services in the hospital irrespective of their financial status.
3. The National Health Insurance Scheme (NHIS) programme should be extended to include market women and housewives who are capable of contributing to the scheme through monthly contributions. This is intended to ensure that all women have access to treatment in public hospitals without being discriminated and disadvantaged due to the burden of cost and the inability to afford the cost of healthcare services in a public hospital.

**References**

Abdulraheem, I. S., Olapipo, A. R. & Amadu, M. O. (2012). Primary health care services in Nigeria: Critical issues and strategies for enhancing the use by the rural communities. *Journal of Public Health and Epidemiology 4(1):5-13.*

Alabi, L. M. (2018). socio-cultural factors affecting utilization of family services among women of reproductive age in Lagos West Senatorial District, Nigeria. M.Sc. Thesis submitted to the Graduate school, University of Calabar, Nigeria.

Anarfi, J., Badasu, D., Yawson, A. E., Atobrah, D., Abuosi, A., & Adzei, F. (2016). Religious affiliation and health-seeking behavior related to non-communicable diseases among children in Ghana. International Journal of Healthcare, 2(2), 57-64. https://doi.org/10.5430/ijh.v2n2p57

Asenso-Okyere, W., Dzator, J. & Osei-Akoto, I. (1997). The behaviour towards malaria care: a multinomial logit approach. *Social Indicators Research,* 39(1):167–186

Bordogna, M., Gentiluomo, A. & Di Sarsina, P. (2013). Education in Traditional and Non Conventional Medicine: A Growing Trend in Italian Schools of Medicine. *Alternative and integrative medicine, 2(131)* doi:10.4172/2327-5162.1000131

Campbell, J., Buchan, J., Cometto, G., David, B., Dussault, G., Fogstad, H., Fronteira, I., Lozano, R., Nyonator, F., Pablos-Méndez, A., Quain, E. E., Starrs, A., & Tangcharoensathien, V. (2013). Human resources for health and universal health coverage: Fostering equity and effective coverage. *Bulletin of the World Health Organization*, *91*(11), 853–863. https://doi.org/10.2471/BLT.13.118729

Catherine, N. & Sebean, M. (2017).The negative impacts of Poverty on the Health of women and children. *Journal of annual of medical and health scheme research 7 (6); 442-446.*

Cesur, R., Dursun, B., & Mocan, N. H. (2014). The impact of education on health and health behavior in a middle-income, low-education country (NBER Working Paper No. w20764). National Bureau of Economic Research. https://doi.org/10.3386/w20764

Chernew, M. E., Fendrick, M. A., Glied, S., Ignagni, K., Parente, S., Robinson, J., & Wilensky, G. R. (2023). Benefit design to promote effective, efficient, and affordable care. In *Vital Directions for Health & Health Care: An Initiative of the National Academy of Medicine* (pp. 175-189). National Academies Press

Chowdhury, J. & Ravi, P. R. (2022). Healthcare Accessibility in Developing Countries: A Global Healthcare Challenge. *Journal of Clinical & Biomedical Research.* 4. 1-5. 10.47363/JCBR/2022(4)152.

D'Souza, P., Bailey, J. V., Stephenson, J., & Oliver, S. (2022). Factors influencing contraception choice and use globally: A synthesis of systematic reviews. *European Journal of Contraception & Reproductive Health Care*, 27(5), 364-372. https://doi.org/10.1080/13625187.2022.2096215

Dzator, J. & Asafu-Adjaye, J. (2004). A study of malaria care provider choice in Ghana. *Health Policy, 69(3):389-401*

Ejembi, C. L., Tukur, D., & Aliyu, A. A. (2015). Contextual factors influencing modern contraceptive use in Nigeria. *DHS Working Papers No. 120*. ICF International. Retrieved from http://dhsprogram.com/pubs/pdf/WP120/WP120.pdf

Joweth, M (2016). Blocking the trends: Healthcare expenditure in lower income countries. 1990-1995. *International of Health planning and management. 14(4): 2169-285.*

Katherine, Z. (2018). Healthcare for the poor: for whom, what care and whose responsibility. I*nternational Journal of Geography. 3(7), 66-71.*

Levine, SM., Weber-Levine, ML. & Mayberry, RM. (2013). Complementary and Alternative Medical Practices: Training, Experience, and Attitudes of Primary Care Medical School Faculty. *Journal of American Board of Family Practitioner*, 16: 318-326.

Lloyd, A.A. (2008). Determinants of the choice of health care provider in Nigeria. *Journal of Health Care Management Science 1 (11):215-227.*

Mardiana B. M San. S. O, & Khatijah L.A. (2015). Prevalence of family planning practices among women influenced by husband's socio demography and decision making. *Journal Sains Kesihatan Malaysia 13 (2) 2015: 45-51*

Mason, E. J. (2010). *Identifying factors of influence on family planning practices among rural Haitian women.* Slippery Rock University.

Nahu, A. (2002). Determinants of demand for healthcare services and their implication on healthcare financing. The case of Buretown. *Ethiopian Journal of Economic XI (1):88-92.*

Ndikom, C. M., Ojoye, T. O., & Nkwonta, C. A. (2017). Factors influencing the choice of healthcare provider during childbirth by women in Ibadan, Oyo State, Nigeria. *International Journal of Caring Sciences, 10*(1), 511. Retrieved from www.internationaljournalofcaringsciences.org

Njimanted, G,.F., Nfor, O. N., Yakum, I.M &Mbohjim. O. M. (2017). Household choice of healthcare services in the Northwest7 region of Cameroon.*Journal of the Cameroon Academy of Science. 14(1), 41-53.*

Nketiah-Amponsah, E. & Hiemenz, U. (2009). Determinants of Consumer Satisfaction of Health Care in Ghana: Does Choice of Health Care Provider Matter? *Global Journal of Health Science, 1(2):50–61*

Nnonyelu, A.N. & Uche, N. I. (2014).Social determinants of differential access to health services across five states of Southeast Nigeria. European Scientific Journal.3(1), v286-296.

Nonvignon, J., & Novignon, J. (2014). Trend and determinants of contraceptive use among women of reproductive age in Ghana. *Etude de la Population Africaine, 28*, 956-967. https://doi.org/10.11564/28-0-549

Obansa, S. A. J., & Orimisan, A. (2013). Health care financing in Nigeria: Prospects and challenges. *Mediterranean Journal of Social Sciences*, *4*(1), 224-225.

Odekunle, F. (2016). *Maternal mortality burden: The influence of socio-cultural, economic, and political factors*. LAMBERT Academic Publishing. ISBN: 978-3-330-01397-1.

O'Donnell, O. (2024). Health and health system effects on poverty: A narrative review of global evidence. *Health Policy*, *142*, 105018. https://doi.org/10.1016/j.healthpol.2024.105018

Olivera, R., Cedomir, S., Alexander, V., Ana, T. & Roberta, M. (2006). The influence of education level on family planning. *Medicine and Biology. 13, (1), 58-64.*

Oluchi, S. E., Manaf, R. A., Ismail, S. & Udeani, T. K. (2019). Predictors of Health-Seeking Behavior for Fever Cases among Caregivers of Under-Five Children in Malaria-Endemic Area of Imo State, Nigeria. *Int J Environ Res Public Health.* 2019 Oct 4;16(19):3752. doi: 10.3390/ijerph16193752. PMID: 31590340; PMCID: PMC6801834.

Raghupathi, V., & Raghupathi, W. (2020). The influence of education on health: An empirical assessment of OECD countries for the period 1995–2015. *Archives of Public Health, 78*(20). https://doi.org/10.1186/s13690-020-00402-5

Seeberg, J., Pannarunothai, S. & Padmawati, RS. (2014). Treatment seeking and health financing in selected poor urban neighbourhoods in India, Indonesia and Thailand. *Social Science and Medicine,* 102 (1): 49–57

Sepehri, A., Moshiri, S., Simpson, W. & Sarma, S. (2008). Taking account of context: how important are household characteristics in explaining adult health-seeking behaviour? The case of Vietnam. *Health Policy and Planning,* 23 (1): 3970-407

Sorsha, A. R. (2018). Key facts poverty and Poor Health. I*nternational Journal of Health. Poverty Action 10 (1) , 65-71.*

Spencer, S., Adipa, F., Baker, T., Crawford, A., Dark, P., Dula, D., Gordon, S., Hamilton, D., Huluka, D., Khalid, K., Lakoh, S., Limbani, F., Rylance, J., Sawe, H., Simiyu, I., Siika, W., Worrall, E., & Morton, B. (2023). A health systems approach to critical care delivery in low-resource settings: A narrative review. *Intensive Care Medicine, 49*(6), 775-786. https://doi.org/10.1007/s00134-023-07136-2

Stellenberg, E. (2015). Accessibility, affordability and use of health services in an urban area in South Africa. *Curationis, 38(1): 102*

Thorsen, R. S. & Pouliot, M. (2015). Traditional medicine for the rich and knowledgeable: challenging assumptions about treatment-seeking behaviour in rural and peri-urban Nepal. *Journal of health policy and planning, 31 (3): 314-324*

Tzenios, N. (2019). The Determinants of Access to Healthcare: A Review of Individual, Structural, and Systemic Factors. *Journal of Humanities and Applied Science Research,* https://www.researchgate.net/publication/367163359_The_Determinants_of_Access_to_Healthcare_A_Review_of_Individual_Structural_and_Systemic_Factors

Ujiro I., (2012). Poverty and family planning practices of married women. Academic Research International, 3(2), 575.

United Nations Population Funds. (1994). Programme of Action: Adopted at the International Conference on Population and Development. Cairo. Retrieved from: https://www.unfpa.org/sites/default/files/event-pdf/PoA_en.pdf

Wim, G., & Massen, H. (2006). What does education do to our health publication of the Department of General Economics, University of Amsterdam, Netherlands.

World Bank. (2018). Decline of Global Extreme Poverty Continues but Has Slowed: World Bank. https://www.worldbank.org/en/news/press-release/2018/09/19/decline-of-global-extreme-poverty-continues-but-has-slowed-world-bank

World Health Organisation. (2024). Determinants of health. https://www.who.int/news-room/questions-and-answers/item/determinants-of-health

Zajacova, A., & Lawrence, E. M. (2018). The relationship between education and health: Reducing disparities through a contextual approach. *Annual Review of Public Health, 39*, 273-289. https://doi.org/10.1146/annurev-publhealth-031816-044628