Socioeconomic determinants of traditional healthcare utilization in Calabar Metropolis, Cross River State

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Abstract
This study explores the socioeconomic determinants of traditional healthcare utilization in Calabar Metropolis, Cross River State, Nigeria. The research investigates the relationship between occupation, income level, educational level, and the use of traditional healthcare services. A survey design was employed, with 402 respondents selected through multistage sampling from six randomly chosen streets across the Calabar Municipality and Calabar South. The study's hypotheses were tested to determine the significance of the relationship between these socioeconomic factors and healthcare utilization. Findings reveal that occupation does not significantly influence traditional healthcare utilization, while both income level and educational level show a perfect positive correlation with usage. Based on these results, the study recommends enhanced social investment programs to address income inequality and improve healthcare access. It also advocates for increased public awareness through collaborative campaigns by the government, NGOs, and media to educate the public on the benefits of traditional healthcare services in in Calabar Metropolis, Cross River State, Nigeria.

Keywords: Socioeconomic determinants, Traditional healthcare, Utilization, Income and education

Introduction
Traditional medicine continues to be an integral part of healthcare in many developing countries, offering an alternative or complementary approach to mainstream medical services. According to the World Health Organization (WHO, 2012), traditional medicine encompasses a variety of health practices, beliefs, and treatments involving plant, animal, or mineral-based remedies, as well as spiritual therapies and manual techniques. In some countries, policies have been formulated to integrate traditional medicine with modern health systems, recognizing its significance in providing accessible and affordable healthcare to underserved populations. Reports from the WHO indicate that as many as 40% of people in China and 80% of people in Africa rely on traditional medicine for their health needs, highlighting its widespread use across different regions (WHO, 2012). The use of traditional medicine in Sub-Saharan Africa is of particular interest, as it remains the primary healthcare system for a large portion of the population. In countries like Tanzania, more than 70% of the population still frequently seeks healthcare from traditional healers, even with increasing access to modern medical services (Langwick, 2008). This persistent reliance on traditional healthcare (THC) raises important questions about the factors influencing its utilization, especially in urban settings like Calabar Metropolis, Cross River State, Nigeria. These factors include cultural beliefs, the high cost and limited access to modern healthcare, safety concerns regarding biomedicine, and perceptions of traditional medicine's effectiveness (Cunningham, Shanley & Laird, 2008; Langwick, 2008; Mahomoodally, 2013).

Traditional healthcare in Nigeria is not limited to herbalism; it also encompasses spiritual healing, divination, and home remedies. The WHO (2008) defines traditional medicine as the knowledge, skills, and practices indigenous to different cultures, used for maintaining health and treating illnesses. In Nigeria, herbalism, spiritual practices, and other indigenous therapies are widely used alongside or even in place of modern medical treatments. Despite its significance, access to traditional healthcare services remains unequal, particularly in urban areas where socioeconomic factors heavily influence healthcare choices. Socioeconomic determinants are essential in understanding the disparities in healthcare utilization in developing countries, including Nigeria. These factors include income, occupation, education, and access to healthcare infrastructure. In many Sub-Saharan African

countries, wealthier households are more likely to seek both modern and traditional healthcare services compared to poorer households (Pokhrel & Sauerborn, 2014). This disparity is exacerbated by barriers such as high treatment costs, limited access to healthcare facilities, and transportation challenges. For example, in Burkina Faso, disadvantaged groups visit health providers half as often as their wealthier counterparts (Pokhrel & Sauerborn, 2014), a pattern that is also evident in Nigeria. Financial constraints often prevent individuals in lower socioeconomic groups from accessing essential healthcare services, including traditional medicine.

Furthermore, education plays a pivotal role in healthcare access, as individuals with higher educational levels are more likely to seek healthcare services, including traditional remedies, than those with limited education. Education not only serves as a tool for social mobility but also impacts one's awareness of available healthcare options and the ability to make informed decisions regarding treatment choices. Anderson and Newman (2005) highlighted that healthcare utilization is influenced by predisposing factors (such as education and occupation), enabling factors (such as income and healthcare access), and the severity of health conditions. Levesque, Harry, and Russel (2013) further emphasized that healthcare access should be viewed as a multifaceted concept, encompassing approachability, affordability, availability, and appropriateness of services. This study explores the socioeconomic factors that influence the utilization of traditional healthcare services in Calabar Metropolis, Cross River State.

Statement of problem

Access to quality healthcare is a fundamental human right, yet substantial inequalities persist in healthcare access across different socioeconomic groups. While wealthier and more educated individuals often have better access to high-quality healthcare services, the economically disadvantaged and less educated populations frequently face significant barriers to obtaining even basic healthcare. This disparity is evident in many parts of the world, including Nigeria, where access to healthcare remains largely shaped by one's socioeconomic status. In particular, Calabar Metropolis, Cross River State, reflects this divide, with a growing concern over unequal access to both traditional and orthodox healthcare systems.

Healthcare systems in most communities, including Calabar, generally comprise two main types: the orthodox or biomedical system and the traditional or indigenous healthcare system. The orthodox system, based on scientific methods and modern medical technology, is often expensive, involving the use of imported pharmaceuticals and advanced diagnostic equipment. In contrast, traditional healthcare relies on indigenous practices, using local herbs, animal products, and spiritual healing, which make it more affordable and accessible, particularly for low-income individuals. Despite its accessibility, traditional healthcare has its drawbacks, including the challenges of inaccurate diagnoses, improper dosages, and a lack of standardized treatment protocols. As a result, many individuals may face health risks from misdiagnosis or improper self-treatment.

Despite these challenges, traditional healthcare remains a critical option for many people, especially those who cannot afford the high costs of conventional medical treatment. Unfortunately, the increasing awareness of the limitations of traditional practices, combined with the rising costs of orthodox healthcare, has led to a troubling trend. Many individuals, unable to afford formal medical care, resort to self-medication or turn to less-qualified traditional providers, which can worsen their health outcomes. This is compounded by the fact that a significant portion of the population avoids seeking any form of healthcare due to financial constraints, leading to untreated conditions and preventable deaths.

The problem in Calabar Metropolis is exacerbated by a significant portion of the population suffering from undiagnosed or untreated health conditions, as evidenced by increasing cases of sudden deaths without prior warning signs. The question arises: why do many individuals, particularly those in lower socioeconomic brackets, refrain from seeking any form of healthcare? Factors such as education level, income, and occupation play pivotal roles in this dynamic, and understanding how these socioeconomic determinants influence the use of traditional healthcare services is crucial for addressing the healthcare gap. This study examines the socioeconomic factors—specifically income, education, and occupation—that influence the utilization of traditional healthcare services in Calabar Metropolis, Cross River State, Nigeria.

Objectives of the study

The main objective of this study was to identify the socioeconomic determinants of traditional healthcare utilization in Calabar Metropolis, Cross River State, Nigeria. However, the following specific objectives were designed to direct the focus of the study:

i. To identify whether there is a relationship between occupation and utilization of traditional healthcare services in Calabar Metropolis

ii. To determine whether there is a relationship between income level and utilization of traditional healthcare services in Calabar Metropolis

iii. To examine whether there is a relationship between level of education and utilization of traditional healthcare services in Calabar Metropolis

Statements of hypotheses

The following hypotheses formulated to guide the focus of the study were stated in null form**:**

i. There is no significant relationship between occupation and utilization of traditional healthcare services in Calabar Metropolis

ii. There is no significant relationship between income level and utilization of traditional healthcare services in Calabar Metropolis

iii. There is no significant relationship between educational level and utilization of traditional healthcare services in Calabar Metropolis

Literature review

Overview of traditional healthcare utilization

The World Health Organization (WHO) reports that 80% of the population in developing countries relies on traditional medicine for healthcare. Over recent decades, even developed nations have seen an increase in the use of complementary and alternative medicine (CAM), particularly herbal remedies (Chintamunnee & Mahomoodally, 2012). Herbal remedies, which include plant-based substances and preparations, play a significant role in healthcare, particularly in regions like Ethiopia, where 9% of the population uses herbal medicine for primary care. In developed countries such as Germany and Canada, at least 70% of individuals have used CAM at least once (Chintamunnee, et al., 2012).

Traditional knowledge of herbal remedies, honed over centuries through trial and error, has laid the foundation for modern medicine. It is believed that many contemporary pharmaceutical remedies originate from traditional practices, and future innovations in medicine may continue to emerge from traditional knowledge, particularly from Africa's rich biodiversity (Shohawon & Mahomoodally, 2013). Despite the valuable contributions of

traditional medicine, over a billion people in low- and middle-income countries (LMICs) still face barriers in accessing essential healthcare services (WHO, 2010). Several factors influence the utilization of healthcare services, including socioeconomic status, cultural beliefs, and the structure of the health system itself. Access is also affected by factors such as immigration status, distance from healthcare facilities, and the availability, affordability, and quality of care (Dias, Gama & Cortes, 2011).

Credibility plays a key role in the utilization of traditional medicine. Many healers and vendors enhance the credibility of their remedies by demonstrating their efficacy through colorful reactions or testimonies. In surveys, nearly half of respondents cited the perceived safety and effectiveness of traditional medicine compared to biomedicine as a primary reason for its use. Additionally, traditional healers rely heavily on testimonials and media advertisements to promote their services (Mahomoodally, 2013). While many people continue to trust traditional medicine due to cultural beliefs, concerns about scientific validity, improper dosing, and a lack of regulation persist. Despite these issues, many still believe in the therapeutic benefits of traditional remedies, illustrating the complex dynamics between credibility, culture, and healthcare choices.

Poverty and utilization of healthcare services

Poverty itself is a health condition that requires rehabilitation in the form of employment. Poverty is a critical determinant of health, creating a cycle that perpetuates both poor health and limited access to healthcare. The World Bank (2014) highlights that poverty not only leads to poor health but also hinders access to necessary medical treatment due to financial constraints. Prolonged illness can worsen poverty, as individuals are forced to pay for healthcare services, including consultations, tests, medications, and transportation, often leading to high levels of debt or asset sales. In addition, family members may need to stop working or attending school to care for the ill, further contributing to financial strain. Consequently, the relationship between poverty and health creates a vicious cycle that exacerbates both conditions. Several studies in Nigeria and other countries, including Ghana, Ethiopia, and India, identify factors such as poor education on when to seek care, the high cost of services, inadequate healthcare resources, and proximity to facilities as barriers to healthcare utilization (Krumkamp et al., 2013; Saronga et al., 2014). Additionally, the lack of essential drugs, basic laboratory services, and healthcare workers further discourages people from accessing care, especially in low-income communities.

The concept of healthcare equality is central to policy discussions globally, with both developed and developing countries facing challenges related to healthcare access inequalities. In sub-Saharan Africa, income-related healthcare inequality is particularly pronounced (Yang, 2013). Dorjdagva et al. (2015) differentiate between horizontal equity, where patients are treated equally based on needs, and vertical equity, where patients with different health needs receive equal treatment. This distinction is crucial in ensuring fair treatment across various health conditions, such as providing similar care for individuals with critical illnesses like HIV/AIDS and those with less severe health concerns. Ultimately, addressing healthcare inequality requires tackling the interconnected issues of poverty, education, and healthcare infrastructure, to ensure that all individuals, regardless of income, have access to the care they need.

Educational level and utilization of healthcare services

Similar to occupational and financial disparities, educational attainment is observed to influence health care services utilization. Research by Alguwaihes and Shah (2009) highlights that individuals with lower educational levels are at higher risk of poor health outcomes, particularly in managing chronic conditions like diabetes. These individuals often exhibit poor

health-seeking behaviors, which contributes to inadequate healthcare utilization. Alguwaihes and Shah further argue that even within publicly funded healthcare systems, where access to hospital and physician care is generally uniform, educational attainment affects healthcare utilization patterns. Higher educational attainment is linked to improved health literacy, which facilitates better healthcare decisions and behaviors. Jansen et al. (2018) emphasize that individuals who complete higher levels of education are more likely to maintain good health compared to those with lower education levels. This is because education empowers individuals, enhancing their ability to navigate healthcare systems, understand medical advice, and make informed health choices.

On the other hand, Mackenbach (2012) notes that low socioeconomic status (SES) correlates with lower life expectancy and higher morbidity at earlier ages. Lower educational attainment often coincides with lower SES, which exacerbates barriers to healthcare access. While financial constraints are a significant barrier to healthcare utilization, education also plays a pivotal role in improving attitudes and behaviors toward healthcare. Educated individuals are more likely to seek timely medical care and engage with preventive healthcare services, making them more proactive about their health. Thus, the relationship between educational level and healthcare utilization goes beyond financial ability to access services. Education fosters better health literacy, encourages healthier lifestyles, and enhances one's ability to make informed decisions about healthcare, leading to improved health outcomes. As such, education serves as a critical determinant in shaping individuals' healthcare behaviors and overall health status.

Services of Traditional healthcare providers

Globally, services of traditional health care providers have been invaluable in maternal health and well-being of pregnant women and in managing birthing, especially in the rural areas of developing countries. One of the most utilized services among traditional healthcare providers is the traditional birth attendant (TBA). The concept of traditional birth attendant (TBA) refers to traditional, independent (of the health system) community-based health providers (Goodburn, Chowdhury, Gazi, Marshall, & Graham, 2010). There are two types of traditional birth attendants, which include the trained and the untrained. According to Goodburn, et al, 2010), trained TBAs are those who have received a short course of training through the modern health care sector to upgrade their skills and can be in possession of a badge or certificate which has been issued on completion of the training, while the untrained TBAs are those that acquired their skills informally through understudying and assisting other TBAs. This is done until such a time when the mentee can offer similar services on their own unsupervised. However, TBAs are not a homogenous group and their profile varies considerably across time, space, and social settings.

The concept of traditional birth attendant itself is also seen as an artificial construct made by the biomedical system, to accommodate the system into international health development policies with a focus on delivery care (Jokhio, Winter & Cheng, 2015). During the 1980s, the term “traditional midwife,” was used which expresses the broad work field of a TBA in assisting women during pregnancy, when they give birth, and during postpartum period (Jokhio, et al. 2015). Until the mid-90s, the term “trained attendant” was commonly used and it included both professional and non-formally trained community-based providers of care during pregnancy, childbirth, and postnatal period. The term “skilled Birth Attendant” (SBA) was employed which refers exclusively to people with midwifery skills (e.g., doctors, midwives, and nurses) who have been trained to be proficient in the skills necessary to manage normal deliveries and diagnose, manage, or refer complications (Jokhio, et al. 2015). TBAs have traditionally been assisting women during childbirth, providing local women with

delivery and pregnancy monitoring services, and giving them and their babies care after childbirth. The official government position and policy regarding TBAs in Nigeria have been wavering in the past decades.

Theoretical framework

Andersen and Newman behavioural model

Andersen and Newman's Behavioral Model, developed in 1973, offers a theoretical framework for understanding the social and economic factors influencing individuals' healthcare choices. This model identifies three core components that shape health-seeking behaviors: predisposing factors, enabling factors, and the social perception of illness. These components interact to influence whether and how an individual seeks healthcare services. ***Predisposing factors****:* These are demographic and social characteristics that influence an individual's decision to seek healthcare. They include factors such as education, income, occupation, gender, and ethnicity. For instance, individuals with higher levels of education may have greater awareness of available healthcare services, leading them to seek medical attention more promptly. Additionally, income and occupation can determine access to healthcare services, as those with lower socio-economic status may find it more difficult to afford or access quality medical care. ***Enabling factors****:* These refer to the resources and environmental factors that facilitate or hinder healthcare utilization. They include access to healthcare services, availability of healthcare facilities, and the proximity of healthcare providers. Urban dwellers, for instance, might have easier access to modern medical facilities compared to rural residents, who may rely more on traditional healthcare due to limited access to formal healthcare services. Enabling factors also encompass societal structures, such as healthcare infrastructure and policies, which can either promote or restrict healthcare choices. ***Social perception of illness****:* This factor involves the way an illness is perceived, labeled, and understood within a community. The cultural context and societal norms surrounding illness play a significant role in whether individuals seek formal or traditional healthcare. For example, minor illnesses such as a stomach upset might be viewed differently depending on gender and social expectations, with some illnesses being considered temporary and requiring minimal attention. Such perceptions directly impact the type of healthcare services sought.

In the context of Calabar Metropolis, these three components influence individuals' decisions to utilize traditional healthcare services. Predisposing factors like low socio-economic status might push individuals towards more affordable traditional remedies, while enabling factors such as proximity to healthcare providers and urban living conditions may limit access to these services. It is general knowledge that illness conditions are not accorded same level of significance and relevance. For example, an experience of stomach upset is taken more seriously in a male than in a female. Unlike in male children where complain of stomach upset is interpreted for food poisoning and attracts serious attention, similar experience in a female is most likely interpreted to be menstrual scram; hence, seen as a temporal and 'normal' illness condition that gets healed in a matter of days. Therefore, the choice or decision of an individual to seek the services of a traditional healthcare provider is significantly connected to the predisposing factors, enabling factors and the cultural interpretation of an illness condition. Furthermore, cultural interpretations of illness and healthcare can guide decisions to seek traditional care. While the Andersen and Newman model has been instrumental in understanding healthcare utilization, it faces limitations in explaining how individuals with similar socio-economic and cultural backgrounds may make different healthcare choices. Despite these shortcomings, the model remains a valuable tool for analyzing health behaviors and understanding healthcare service utilization.

Methodology

Research design

This paper adopted the survey research design in identifying the relationship between socioeconomic determinants and traditional healthcare services utilization in Calabar Metropolis, Cross River State, Nigeria. This design was most appropriate for the study as it enabled the researcher to generate sufficient data for the study.

Area of study

The research area for this study was Calabar Metropolis, Cross River State, Nigeria. This area comprises two local government areas, namely, Calabar Municipality and Calabar South. Major towns in the metropolis include Akim, Ikot Ansa, Ikot Ishie, Kasuk, Duke Town, Henshaw Town, Cobham Town, Ikot Omin, Obutong, etc. The people of Calabar Metropolis are predominantly civil servants, traders and farmers. The metropolis is an administrative settlement with majority of the civil servants working in federal and state agencies. The traders sell in markets or shops along the streets. The major markets include the Watt market, Spare parts market, beach market, Anantigha market and Marian market. Majority of the farmers are fishermen who ply the Atlantic coast and the surrounding creeks to supply most of the fishes that are consumed in the metropolis. Some of the sea foods supplied by the fishermen include crayfish, periwinkles (mfi), catfish, etc.

Population of the study

According to the National Population Commission census of 2006, the combined population of Calabar Metropolis is 371, 022, consisting of 179, 392 and 191, 630 for Calabar Municipality and Calabar South, respectively (Nku-Ekpang, Okpiliya, Okon, Njoku, Itu, Erhabo and Okeniyi, 2017). The respondents for the study were selected among residents of the metropolis consisting of males and females from 20 to 80 years old. The selected age range was to enable the researcher obtain useful information from adults who were at liberty to utilize the health care service of their choice.

Sample size and sampling technique

The sample size for the study was 402 respondents comprising males and females, randomly selected from six electoral wards in the metropolis. The sample made up of adults from 20 to 80 years of age. The multistage sampling technique was used in the study, for stage one, two and three. In stage one; the purposive sampling technique was used in dividing the metropolis into 22 electoral wards. According to Odu (2013), purposive sampling technique is characterized by the use of judgement and deliberate effort to obtain representative sample by including typical areas of the study. Although the wards have already been structured by the Independent National Electoral Commission (INEC), they served to enable the researcher select areas to select the desired respondents without difficulties. The total wards in the metropolis are 22, where Calabar municipality has 10 and Calabar South has 12.

In stage two, the systematic random sampling technique was used in selecting 6 communities. Here, all the electoral wards were presented in table 1 from where 6 were selected using a systematic approach. With 22 wards in the table, every 4^{th} ward was selected until the 6^{th} was selected. In each ward selected, only one street was selected for the administration of questionnaire. The choice for only streets was to ensure that selected respondents have similar socio-demographic characteristics. With 402 sample size for the study, each selected community was administered 67 questionnaire. In stage three, the systematic random sampling technique was repeated in order to identify the houses to distribute the questionnaire. In doing this, the researcher ensured that every 5^{th} house in a selected street was identified for the study. In this case, houses 5, 10, 15, 20, 25, 30, 35 ...n until the 67^{th} house was selected. The streets

selected for the study include Abang Asang by Akim (Ward 1), Ekorinim village (Ward 5) and Lawrence Ene Street by Federal Housing Estate (Ward 9) in Calabar Municipality Local Government Area. Wards and streets selected in Calabar South Local Local Government Area, include Edem street (Ward 3), Dan Archibong Street (Ward 7) and New Airport road (Ward 11).

Table 1: Table spread of wards and selection guide in Calabar metropolis

S/N	Calabar municipality	Selected	Calabar South	Selected
1	Ward 1	←	Ward 1	
2	Ward 2		Ward 2	
3	Ward 3		Ward 3	←
4	Ward 4		Ward 4	
5	Ward 5	←	Ward 5	
6	Ward 6		Ward 6	
7	Ward 7		Ward 7	←
8	Ward 8		Ward 8	
9	Ward 9	←	Ward 9	
10	Ward 10		Ward 10	
			Ward 11	←
			Ward 12	

Source: Researcher's compilation, 2019

Instrument of data collection

The instrument of data collection for this study was the questionnaire. A total of 402 questionnaire were produced and administered on the selected respondents. The questionnaire were designed in two sections, reading "Part One" and "Part Two". Part one was designed to elicit opinions relating to the demographic data of the respondents. This includes sex, age, marital status and religious belief. Part two on the other hand had the phenomenal data of the study structured in three sections, each measuring the variables in the hypotheses. Thus, section A measured occupation and utilization of traditional healthcare services; section B measured income level and utilization of traditional healthcare services while section C measured educational level and utilization of traditional healthcare services.

Data analysis

The data gathered from the field were coded in tabular format assigning, nominal values to variables. Coded data were then presented in tables and simple percentile. Hypotheses were tested using Pearson Product Moment Correlation Coefficient (PPMC) in order to determine the relationship between socioeconomic determinants and utilization of traditional healthcare services in Calabar metropolis, Cross River State, Nigeria.

Findings

Presentation of data

Data generated from the field were presented using tables and percentage.

Table 2: Demographic distribution of respondents

Bio-data of Respondent	Designation	Outcome	Percentage
1. ***Sex***	Male	168	41.79
	Female	234	58.20
		402	**100**
2. ***Age***	20 – 29	30	7.46
	30 – 39	37	9.20
	40 – 49	86	21.39
	50 – 59	113	28.10
	60 – 69	102	25.37
	70 – 79	34	8.45
		402	**100**
3. ***Marital status***	Single	48	11.94
	Married	312	77.61
	Divorce	16	3.98
	Widowed	26	6.46
		402	**100**
4. ***Religious belief***	Christianity	381	94.77
	Islam	16	3.98
	ATR	1	0.24
	NIL	4	0.99
		402	**100**

Source: Researcher's compilation, 2019

Table 2 presents the demographic details of the respondents, including sex, age, marital status, and religious belief. Out of the 402 respondents who participated in the study, 168 were males, and 234 were females, representing 41.79% and 58.20%, respectively. Regarding the age distribution, 30 respondents (7.46%) were aged 20 to 29 years, 37 respondents (9.20%) were aged 30 to 39 years, and 86 respondents (21.39%) were aged 40 to 49 years. A larger group, 113 respondents (28.10%), were aged 50 to 59 years, while 102 respondents (25.37%) were aged 60 to 69 years. Finally, 34 respondents (8.45%) were aged 70 years and above. In terms of marital status, 48 respondents (11.94%) were single, 312 respondents (77.61%) were married, 16 respondents (3.98%) were divorced, and 26 respondents (6.46%) were widowed. On religious beliefs, 381 respondents (94.77%) identified as Christians, while 16 respondents (3.98%) were Muslims. Four respondents (0.99%) did not provide a response to this question, and one respondent (0.24%) indicated they followed African Traditional Religion (ATR).

Table 3: Responses measuring occupation and utilization of traditional healthcare services

Questions	***Observations***		***percent***
5. Is there a traditional healthcare provider in your residence?	Yes	36	8.95
	No	361	89.80
	No Response	5	1.24
6. Does your work push you towards the use of traditional healthcare service?	Yes	290	72.13
	No	109	27.11
	No Response	3	0.74
7. Do you consider lack of employment as the reason for the utilization of traditional healthcare services?	Yes	364	90.54
	No	36	8.95
	No Response	2	0.49
8. What is your occupation?	Civil servant	34	8.45
	Trader	177	44.02
	Farmer	59	14.67
	Unemployed	132	32.83

Source: Fieldwork, 2019

Table 3 presents the distribution of responses regarding occupation and the utilization of healthcare services in Calabar Metropolis, Cross River State, Nigeria. To assess whether traditional healthcare providers were closer to respondents, 36 respondents (8.95%) reported "yes," while 361 respondents (89.80%) reported "no." Five respondents (1.24%) did not respond to this question. To investigate if occupation influenced the utilization of traditional healthcare services, 290 respondents (72.13%) agreed that it did, while 109 respondents (27.11%) disagreed. Three respondents (0.74%) did not respond to the question. Regarding the impact of employment status on the utilization of traditional healthcare services, 364 respondents (90.54%) indicated that lack of employment was a factor, while 36 respondents (8.95%) disagreed, suggesting that their choice to use traditional healthcare services was not due to unemployment. In terms of occupation, the table shows that 34 respondents (8.45%) were civil servants, 177 respondents (44.02%) were traders, and 59 respondents (14.67%) were farmers. Unexpectedly, 132 respondents (32.83%) were classified as unemployed parents.

Table 4: Responses measuring income level and utilization of traditional healthcare

Questions	***Observations***		***percent***
5. Do you utilize the traditional health care services because it is cheaper than hospital?	Yes	250	62.18
	No	119	29.60
	No Response	23	5.72
6. Is it lack of money that attracts you to use of traditional healthcare services?	Yes	302	75.12
	No	88	21.89
	No Response	12	2.98
7. Do you consider hospital treatment to be too expensive?	Yes	366	91.04
	No	31	7.71
	No Response	5	1.24
8. What is your income level per month?	Below 30,000	13	3.23
	31,000 – 50,000	211	52.48
	51,000 -100,000	143	35.57
	100,000 & above	35	8.70

Source: Researcher's compilation, 2019

Table 4 shows the distribution of responses regarding income level and the utilization of traditional healthcare services in Calabar Metropolis, Cross River State, Nigeria. To assess whether traditional healthcare services were considered cheaper than hospital treatment, 250 respondents (60.18%) agreed, while 119 respondents (29.60%) disagreed. Twenty-three respondents (5.72%) did not respond to this question. To investigate if lack of money attracted patients to traditional healthcare services, 302 respondents (75.12%) agreed, while 88 respondents (21.89%) disagreed. Twelve respondents (2.98%) did not respond to this question. On whether people consider hospital treatments to be too expensive, thereby seeking traditional healthcare services, 366 respondents (91.04%) agreed that hospital treatments were expensive, which is why they opted for traditional healthcare services. Thirty-one respondents (7.71%) disagreed, indicating that the utilization of traditional healthcare services was not necessarily due to the cost of hospital treatments. Five respondents (1.24%) did not respond to this question. Regarding income levels, the table shows that 13 respondents (3.23%) earned below N30,000 monthly; 211 respondents (52.48%) earned between N31,000 and N50,000; 143 respondents (35.57%) earned between N51,000 and N100,000; and 35 respondents (8.70%) earned above N100,000.

Table 5: Responses measuring educational level and utilization of traditional healthcare

Questions	*Observations*		*Percent*
13. Do you see the traditional healthcare service as meant for the uneducated?	Yes	391	97.26
	No	11	2.73
	No Response	0	0
14. Do you utilize the traditional health services because hospital treatments are difficult to understand?	Yes	196	48.75
	No	194	48.25
	No Response	12	2.98
15. Does utilization of traditional healthcare services have any relationship with educational level of patient?	Yes	332	82.58
	No	58	14.42
	No Response	12	2.98
16. What is you educational level?	FSLC	12	2.98
	SSCE	180	44.77
	First Degree	201	50.0
	Post Graduate	9	2.23

Source: Researcher's compilation 2019

Table 5 shows the distribution of responses regarding educational level and the utilization of traditional healthcare services in Calabar Metropolis, Cross River State, Nigeria. To examine whether respondents view traditional healthcare as a class of healthcare suitable for the uneducated, 391 respondents (97.26%) agreed, while 11 respondents (2.73%) disagreed. To assess whether patients utilize traditional healthcare services because the hospital system is complex and difficult to understand, 196 respondents (48.75%) agreed, while 194 respondents (48.25%) disagreed. Twelve respondents (2.98%) did not respond to the question. To explore whether there is a relationship between the utilization of traditional healthcare services and the patient's level of education, 332 respondents (82.58%) agreed, while 58 respondents (14.42%) disagreed. Twelve respondents (2.98%) did not respond to the question. In terms of educational levels, the table shows that 12 respondents (2.98%) had First School Leaving Certificates (FSLC), 180 respondents (44.77%) had Senior School Certificate Examination (SSCE) certificates, 201 respondents (50.00%) were holders of first degrees, and 9 respondents (2.23%) had post-graduate certificates.

Test of hypotheses

Hypothesis One

Null: There is no significant relationship between occupation and utilization of traditional healthcare services in Calabar Metropolis, Cross River State, Nigeria.

Alternate: There is a significant relationship between occupation and utilization of traditional healthcare services in Calabar Metropolis, Cross River State, Nigeria.

Decision rule: Accept the null hypothesis if calculated r-value is 0 or ≤ 1 at 2 degree of freedom and 0.05 level of significance; otherwise, reject the null hypothesis and accept the alternate hypothesis.

This hypothesis was tested using responses from questions 5, 6, 7 & 8 plotted in table 8.2. This table measured occupation and utilization of traditional healthcare services in Calabar Metropolis, Cross River State, Nigeria.

Table 6: Pearson Product Moment Correlation analysis measuring relationship between occupation and utilization of traditional healthcare services N = 402

Variables	∑x	∑x² 99,911.2	∑XY	r
	∑y	∑y² 59,564.5		
Utilization of traditional healthcare services (x)	815			
			62,212.44	0.80
Occupation (y)	783			

Significance: 0.05 (One-tailed); Df – 2; Critical Value – 0.950; N= 65

***Decision*:**

At 2 degrees of freedom and 0.05 level of significance, the critical value of this hypothesis was 0.950. The analysis of this hypothesis accepted the null hypothesis and rejected the alternate hypothesis. This decision was taken because the calculated *r*-value of 0.80 was less than 1 as stated in the decision rule. The outcome of this test showed that there was a perfect negative correlation between occupation and utilization of traditional healthcare services in Calabar metropolis, Cross River State, Nigeria.

Hypothesis two

Null: There is no significant relationship between income level and utilization of traditional healthcare services in Calabar Metropolis, Cross River State, Nigeria.

Alternate: There is a significant relationship between income level and utilization of traditional healthcare services in Calabar Metropolis, Cross River State, Nigeria.

Decision rule: Accept the null hypothesis if calculated r-value is 0 or ≤ 1 at 2 degree of freedom and 0.05 level of significance; otherwise, reject the null hypothesis and accept the alternate hypothesis.

This hypothesis was tested using responses from questions 9, 10, 11 & 12 plotted in table 8.3. This table measured occupation and utilization of traditional healthcare services in Calabar Metropolis, Cross River State, Nigeria.

Table 7: Pearson Product Moment Correlation analysis measuring relationship between income level and utilization of traditional healthcare services in Calabar Metropolis N = 402

Variables	∑x	∑x² 2849	∑XY	Ґ
	∑y	∑y² 2845		
Utilization of traditional healthcare services (x)	1274			
			2827	1
Income level (y)	384			

Significance: 0.05; Df – 2; Critical Value – 0.950; N= 402

***Decision*:**

At 2 degrees of freedom and 0.05 level of significance, the critical value of this hypothesis was 0.950 while the sample size was 402 respondents. From the result of the analysis, the null hypothesis was rejected while the alternate hypothesis was accepted. This was because the calculated *r*-value of 1 was greater than 0 as stated in the decision rule. Therefore, the outcome of this analysis showed that there was a perfect positive correlation between income level and utilization of traditional healthcare services in Calabar metropolis, Cross River State, Nigeria.

Hypothesis three

Null: There is no significant relationship between educational level and utilization of traditional healthcare services in Calabar metropolis, Cross River State, Nigeria.

Alternate: There is a significant relationship between educational level and utilization of traditional healthcare services in Calabar metropolis, Cross River State, Nigeria.

Decision rule: Accept the null hypothesis if calculated r-value is 0 or ≤ 1 at 2 degree of freedom and 0.05 level of significance; otherwise, reject the null hypothesis and accept the alternate hypothesis.

This hypothesis was tested using responses from questions 13, 14, 15 & 16 plotted in table 4. This table measured educational level and utilization of traditional healthcare services in Calabar, Cross River State, Nigeria.

Table 8: Pearson Product Moment Correlation analysis measuring relationship between computerized provider order entry and work performances N = 402

Variables	∑x	$\sum x^2$ 4,266	∑XY	Γ
	∑y	$\sum y^2$ 4,345		
Utilization of traditional healthcare services (x)	1,140			
			4,305	1
Educational level (y)	450			

Significance: 0.05 (One-tailed); Df – 2; Critical Value – 0.950; N= 402

***Decision*:**

At 2 degrees of freedom and 0.05 level of significance, the critical value of this hypothesis was 0.950. From the analysis of this hypothesis, the null rejected was rejected and the alternate hypothesis accepted. This was because the calculated *r*-value of 1 was greater than 0 as stated in the decision rule. The outcome of this test showed that there was a perfect positive correlation between use of computerized provider order entry and work performance among workers in General Hospital, Calabar, Cross River State, Nigeria.

Discussion of findings

Occupation and utilization of traditional healthcare services

This study shows that there is no relationship between occupation and utilization of traditional healthcare services among residents in Calabar Metropolis, Cross River State, Nigeria. After testing hypothesis one, the result shows that there was a perfect negative correlation between occupation and utilization of traditional healthcare services among residents in Calabar Metropolis. While the result of this hypothesis contradicts the findings of Kevany, Murima, Singh, Hlubinka, Kulich, Morin and Sweat (2012) that health care utilization is significantly associated with employment status which shows that health services tend to be utilized by gainfully employed members of a population, it agrees with Olatunji, Ehebha and Ifeanyi-Obi (2013) and Uwakwe, Merenu, Duru, Diwe and Chineke (2015) that occupation does not significantly influence utilization of traditional health care services but the consideration of other factors such as cost, time, distance, accessibility, severity of illness condition and attitude.

Income level and utilization of traditional healthcare services

The result of hypothesis two shows that there is a significant relationship between income level of a patient and the utilization of traditional healthcare services among residents in Calabar Metropolis, Cross River State, Nigeria. After testing hypothesis one, the result shows that there was a perfect positive correlation between occupation and utilization of traditional healthcare services among residents in Calabar Metropolis. From the result of the study, it shows that level of income available to a patient was an important factor influencing the utilization of traditional healthcare services. It therefore, implies that with increase finances or income level, a patient would most likely not utilize the traditional healthcare services. This

finding agrees with Goldberg (2013) that level of income is a significant determinant of traditional healthcare utilization in (Madagascar) sub-Sahara African. This finding, however, contradicts the findings of Thorsen and Pouliot (2016) who, contrary to widely held opinion, found that high income was a major determinant for the utilization of traditional healthcare services in Nepal.

Educational level and utilization of traditional healthcare services

After testing hypothesis three, the result shows that there is significant relationship between educational level and utilization of traditional healthcare services among residents in Calabar Metropolis, Cross River State, Nigeria. The finding indicated that there was a perfect positive correlation between educational level and utilization of traditional healthcare services among residents in Calabar Metropolis. This result re-echoed the findings of Alguwaihes and Shah (2009) who observed highly educated patients tend to seek advanced healthcare services than the less educated who most often seek healthcare services from the local traditional health providers. This result also agrees with Thorsen and Pouliot (2016) who concluded that traditional treatment and self medication were most utilized by less educated individuals.

Conclusion

This study on the socioeconomic determinants of traditional healthcare services utilization was carried out in Calabar Metropolis, Cross River State, Nigeria. Three objectives were identified, which guided the formulation of the study's hypotheses; they include, occupation, income level and educational level. Using survey design, questionnaire were designed and administered to respondents which generated responses used in testing the hypotheses. After testing the hypotheses, the study found that there was no significant relationship between occupation and utilization of traditional healthcare services among residents in Calabar Metropolis, Cross River State. However, the study found a perfect positive correlation between income level and utilization of traditional healthcare among residents of Calabar Metropolis, Cross River State as well as a perfect positive correlation between educational level and utilization of traditional healthcare among residents of Calabar Metropolis, Cross River State.

Recommendations

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

1. With increasing utilization of traditional healthcare services across different social status, research into improving the quality of services should be encouraged in order to ensure standardized dosage, reliable diagnosis and price uniformity.

2. The efforts of the government towards poverty alleviation and eradication should be intensified in order to bridge the gap in healthcare utilization, predicated by income inequality. This should be seen in the form of subsidization of healthcare cost and improved accessibility to healthcare facilities such as the National Health Insurance Scheme (NHIS).

3. Since higher educational level comes with higher knowledge of healthcare utilization, the government through the Ministry of Health, and in collaboration with the National Orientation Agency (NOA), media houses, Non-Governmental Organizations (NGOs), should intensify public awareness campaigns towards educating the public on the benefits of healthcare utilization.

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