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Poverty and Access to Healthcare Services in Rural Communities of Yobe State, Nigeria

Suleiman Kawuwa[1*], Hussaini Ibn Mohammed[2], Aishatu Umar Dahiru[3]

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ABSTRACT

Access to healthcare remains a fundamental determinant of human well-being and sustainable development. However, poverty continues to hinder healthcare utilization, particularly among rural populations in developing countries. This study examines the relationship between poverty and access to healthcare services in rural communities of Yobe State, Nigeria. Drawing on existing literature and empirical evidence from similar contexts, the article explores the socioeconomic, geographical, and institutional barriers that limit healthcare access among poor households. The study reveals that poverty influences healthcare utilization through inability to afford medical expenses, transportation challenges, poor health infrastructure, low educational attainment, and inadequate health insurance coverage. The paper recommends strengthening primary healthcare systems, expanding health insurance coverage, improving rural infrastructure, and implementing poverty reduction programs to enhance healthcare accessibility and improve health outcomes in Yobe State.

INTRODUCTION

Health is widely recognized as a fundamental human right and an essential component of socioeconomic development. Access to quality healthcare services contributes significantly to improved life expectancy, reduced mortality rates, and enhanced productivity. Nevertheless, millions of people in developing countries continue to experience barriers to healthcare access due to poverty and socioeconomic deprivation (World Health Organization [WHO], 2023). Nigeria faces substantial challenges in providing equitable healthcare services to its rapidly growing population. These challenges are particularly pronounced in rural areas where poverty rates are high and healthcare facilities are often inadequate (National Bureau of Statistics [NBS], 2022). In Yobe State, located in north-eastern Nigeria, rural communities face multiple healthcare challenges arising from poverty, insecurity, inadequate infrastructure, and limited availability of healthcare professionals.

Poverty and poor health are closely interconnected. Poverty increases vulnerability to diseases through poor nutrition, inadequate sanitation, and limited access to healthcare services. Conversely, illness can deepen poverty by reducing household income and increasing healthcare expenditures (World Bank, 2023). Understanding the relationship between poverty and healthcare access is therefore crucial for designing effective health and social policies in Yobe State. This article examines how poverty affects access to healthcare services in rural communities of Yobe State and identifies strategies for improving healthcare accessibility among vulnerable populations.

Conceptual Clarification

Poverty

Poverty refers to the inability of individuals or households to meet basic needs necessary for a decent standard of living. These needs include food, shelter, clothing, education, healthcare, and social participation (United Nations Development Programme [UNDP], 2023). Poverty may be absolute, relative, multidimensional, chronic, or transient. Multidimensional poverty extends beyond income deprivation and encompasses deficiencies in health, education, and living standards (Alkire & Foster, 2011).

Access to Healthcare

Healthcare access refers to the ability of individuals to obtain needed health services in a timely, affordable, and acceptable manner. According to Penchansky and Thomas (1981), healthcare access includes dimensions such as availability, affordability, accessibility, accommodation, and acceptability. Effective healthcare access requires the presence of health facilities, qualified personnel, affordable services, and supportive transportation and communication systems. These dimensions suggest that healthcare access depends not only on the presence of healthcare facilities but also on financial capacity, geographical location, cultural acceptance, and quality of services.

The relationship between poverty and health is complex and mutually reinforcing. Poor individuals are more exposed to health risks due to inadequate living conditions, malnutrition, unsafe water, poor sanitation, and limited access to preventive healthcare. At the same time, illness can worsen poverty by reducing individuals' ability to work and increasing household expenditure on healthcare (World Bank, 2023).

Theoretical Framework

Social Determinants of Health Theory

This study is anchored on the Social Determinants of Health (SDH) Theory. The theory posits that health outcomes are significantly influenced by social,

[1] Department of Sociology, Yobe State University, Nigeria
[2] Department of Sociology, Federal University Gashua, Nigeria
[3] Department of Sociology and Anthropology, University of Maiduguri, Nigeria
[*] Corresponding author's e-mail: skawuwa@ysu.edu.ng

economic, and environmental factors rather than solely by biological conditions (Marmot & Wilkinson, 2006). The SDH framework emphasizes that poverty, education, employment, housing, and social inclusion shape individuals' opportunities to achieve good health. Poor populations are more likely to experience adverse health outcomes due to limited access to healthcare services and other social resources. The theory is particularly relevant in explaining healthcare disparities in rural Yobe State, where poverty and inadequate infrastructure significantly influence healthcare utilization.

LITERATURE REVIEW

Poverty and Healthcare Utilization

Numerous studies have established a strong relationship between poverty and healthcare utilization. According to Peters *et al.* (2008), poor households often delay seeking medical care due to financial constraints. Out-of-pocket healthcare expenditures constitute a major barrier to accessing healthcare services in many low-income countries. Nigeria continues to experience significant healthcare inequalities despite several health sector reforms. According to the National Bureau of Statistics (NBS, 2022), poverty remains widespread across the country, with rural populations experiencing higher levels of deprivation compared with urban residents. Aregbeshola and Khan (2018) examined healthcare financing in Nigeria and found that reliance on out-of-pocket expenditure creates significant barriers for poor households. Many Nigerians delay seeking healthcare or rely on informal treatment options because they cannot afford medical costs.

Similarly, Onwujekwe *et al.* (2010) observed that healthcare payments in Nigeria frequently impose financial burdens on households, particularly among rural populations. The study emphasized the importance of expanding financial protection mechanisms such as health insurance to reduce inequality. The Nigerian healthcare system is also affected by inadequate funding, shortage of healthcare workers, and uneven distribution of health facilities. According to Abimbola *et al.* (2015), rural communities often experience difficulties accessing primary healthcare due to poor governance of healthcare workforce deployment and limited institutional capacity.

Rural Healthcare Challenges in Nigeria

Rural communities in Nigeria face unique healthcare challenges characterized by inadequate infrastructure, shortage of healthcare personnel, and poor transportation networks (Abimbola *et al.,* 2015). These challenges are more severe in northern states, including Yobe State. Research by Doctor *et al.* (2018) found that distance to health facilities significantly affects healthcare utilization among rural populations. Long travel distances increase transportation costs and discourage individuals from seeking timely medical attention.

Poverty and Maternal and Child Health

Maternal and child health outcomes are closely linked to household economic status. Studies indicate that poor women are less likely to access antenatal care, skilled birth attendance, and postnatal services (United Nations Children's Fund [UNICEF], 2023). In northeastern Nigeria, poverty and low educational attainment contribute to high maternal and child mortality rates. Poor households often rely on traditional medicine or self-medication due to financial limitations.

Health Insurance and Healthcare Access

Health insurance plays an important role in reducing financial barriers to healthcare access. However, coverage remains limited in rural Nigeria. The National Health Insurance Authority (NHIA) has made efforts to expand coverage, but enrollment among rural populations remains low due to lack of awareness and affordability challenges (NHIA, 2023).

Poverty and Access to Healthcare in Rural Communities of Yobe State

Financial Constraints

One of the most significant barriers to healthcare access in rural Yobe State is poverty. Many households depend on subsistence farming and petty trading, generating insufficient income to cover healthcare expenses. Consequently, individuals often postpone treatment until illnesses become severe. Among many other reasons the following factors are the major constraints to access to timely health care services:

Transportation and Geographical Barriers

Many rural communities are located far from healthcare facilities. Poor road networks and transportation costs further limit access to healthcare services. During the rainy season, some communities become inaccessible, exacerbating healthcare challenges.

Inadequate Healthcare Infrastructure

Many primary healthcare centres in rural Yobe State lack essential medicines, medical equipment, and qualified healthcare personnel. These deficiencies reduce service quality and discourage healthcare utilization. Although the government is doing its best particularly in providing the primary health care centres closed to the communities but the demand is too high to meet the people needs at once.

Low Educational Attainment

Education significantly influences health-seeking behavior. Low literacy levels among rural residents contribute to poor awareness of disease prevention and available healthcare services. Consequently, many individuals resort to traditional remedies rather than seeking professional medical care.

Limited Health Insurance Coverage

The majority of rural residents are not enrolled in health insurance schemes. As a result, healthcare costs are paid directly by households, increasing financial hardship and

reducing service utilization.

MATERIALS AND METHODS

Research Design

This study adopted a cross-sectional survey research design to investigate the relationship between poverty and access to healthcare services in rural communities of Yobe State, Nigeria. The survey design was considered appropriate because it enables the collection of quantitative data from a large number of respondents at a single point in time and facilitates the examination of socioeconomic factors influencing healthcare access. The study employed a quantitative approach, allowing for statistical analysis of the association between household poverty levels and healthcare utilization patterns among rural residents.

Study Area

The study was conducted in rural communities across selected Local Government Areas (LGAs) of Yobe State, Nigeria. Yobe State is located in the North-East geopolitical zone of Nigeria and comprises 17 LGAs. The state is predominantly rural, with a large proportion of the population engaged in agriculture, livestock rearing, and small-scale trading. The state has experienced socioeconomic challenges, including poverty, inadequate infrastructure, limited healthcare facilities, and security concerns, all of which influence healthcare accessibility.

Population of the Study and Sample size Determination

The target population comprised adult household heads and household representatives (18 years and above) residing in rural communities of Yobe State. Household heads were selected because they are generally responsible for healthcare decision-making and household expenditure allocation. A multi-stage sampling technique was employed. Five predominantly rural LGAs were purposively selected from the three senatorial zones of Yobe State: Fika, Fune, Bade, Yusufari and Gulani LGAs. These LGAs were selected due to their rural characteristics and varying levels of healthcare infrastructure.

Instrument for Data Collection

Data were collected using a structured questionnaire divided into five sections:

Section A: Socio-demographic characteristics:
Age, Gender, Marital status, Education, Occupation and Household size.

Section B: Household Poverty Indicators:
Monthly income, Employment status, Asset ownership and Housing condition.

Section C: Healthcare Accessibility:
Distance to health facility, Transportation availability and Healthcare costs.

Section D: Healthcare Utilization:
Frequency of healthcare visits, Type of health facility used and Delays in seeking treatment.

Section E: Perceived Barriers to Healthcare Access:
Financial barriers, Cultural barriers, Geographic barriers and Institutional barriers. Responses were measured using a combination of dichotomous, multiple-choice, and five-point Likert scale items.

Method of Data Analysis

• Data collected were coded and analyzed using the Statistical Package for Social Sciences (SPSS) version 27. The following statistical techniques were employed:
The analysis was conducted in five stages:

• Descriptive Statistics: Used to summarize respondents' characteristics and study variables through: Frequencies, Percentages, Means, Standard deviations

• Inferential Statistics: To test the relationship between poverty and healthcare access,

• Chi-Square Test: Used to determine associations between categorical variables.

• Pearson Correlation Analysis: Used to assess the strength and direction of the relationship between poverty indicators and healthcare access.

• Multiple Regression Analysis: Used to determine the predictive effect of poverty-related variables on healthcare access.

RESULTS AND DISCUSSIONS

Response Rate

A total of 422 questionnaires were distributed across selected rural communities in Fika, Fune, Bade, Yusufari, and Gulani LGAs of Yobe State. Out of these, 400 questionnaires were properly completed and returned, representing a response rate of 94.8%.

Table 1: Questionnaire Distribution and Response Rate

Questionnaire Status	Frequency	Percentage (%)
Distributed	422	100
Returned and Valid	400	94.8
Unreturned/Invalid	22	5.2
Total	422	100

Socio-Demographic Characteristics of Respondents

Table 2: Gender Distribution

Gender	Frequency	Percentage (%)
Male	275	68.8
Female	125	31.2
Total	400	100
Total	422	100

The majority of respondents were male household heads (68.8%), reflecting the cultural structure of rural communities in Yobe State.

Table 3: Age Distribution

Age Group	Frequency	Percentage (%)
18–27 years	72	18.0
28–37 years	118	29.5
38–47 years	105	26.3

48–57 years	63	15.8
58 years and above	42	10.5
Total	400	100

The findings indicate that economically active adults constituted the majority of respondents.

Poverty Status of Respondents

Table 4: Monthly Household Income

Monthly Income (₦)	Frequency	Percentage (%)
Less than 30,000	172	43.0
31,000–50,000	123	30.8
51,000–100,000	68	17.0
Above 101,000	37	9.2
Total	400	100

The data reveal that approximately 74% of respondents earned less than ₦50,000 monthly, indicating widespread poverty among rural households.

Access to Healthcare Service

Table 5: Distance to Nearest Health Facility

Distance	Frequency	Percentage (%)
Less than 2 km	52	13.0
2–5 km	98	24.5
6–10 km	147	36.8
Above 10 km	103	25.7
Total	400	100

The results show that over 62% of respondents travel more than 5 km to access healthcare services.

Table 6: Healthcare Utilization

Number of Visits in Last 12 Months	Frequency	Percentage (%)
None	62	15.5
1–2 Visits	189	47.3
3–4 Visits	103	25.7
More than 4 Visits	46	11.5
Total	400	100

The findings indicate low utilization of healthcare services among rural residents.

Table 7: Perceived Barriers to Healthcare Access

Barrier	Agree (%)	Disagree (%)
High treatment costs	87.5	12.5
Long distance to facilities	79.0	21.0
Lack of transportation	73.2	26.8
Shortage of health workers	81.5	18.5
Lack of medicines	84.3	15.7

The majority of respondents identified financial constraints and inadequate healthcare infrastructure as major barriers to healthcare access.

Test of Hypothesis

Hypothesis

H0: There is no significant relationship between poverty and access to healthcare services in rural communities of Yobe State.

H1: There is a significant relationship between poverty and access to healthcare services in rural communities of Yobe State.

Table 8: Pearson Correlation Analysis

Variables	r-value	p-value
Poverty Index and Healthcare Access	-0.641	0.000

Interpretation

The Pearson correlation coefficient (r = -0.641) indicates a strong negative relationship between poverty and healthcare access. The p-value (0.000) is less than the significance level of 0.05. Therefore, the null hypothesis is rejected, and the study concludes that poverty significantly affects access to healthcare services in rural communities of Yobe State.

Table 9: Multiple Regression Analysis

Variable	Beta (β)	t-value	p-value
Household Income	0.482	8.921	0.000
Education Level	0.271	5.107	0.000
Employment Status	0.186	3.864	0.001
Asset Ownership	0.143	2.982	0.003

Table 10: Model Summary

R	R^2	Adjusted R^2	F-value	p-value
0.724	0.524	0.517	78.413	0.000

Interpretation

The model explains 52.4% of the variation in healthcare access (R^2 = 0.524). Household income emerged as the strongest predictor of healthcare access, followed by education level, employment status, and asset ownership.

Discussion of Findings

The findings demonstrate that poverty significantly limits access to healthcare services in rural Yobe State. Households with low income experience greater difficulty in paying for consultations, medicines, transportation, and diagnostic services. These findings are consistent with previous studies by Aregbeshola and Khan (2018) and Peters *et al.* (2008), which found that poverty reduces healthcare utilization in developing countries. The study further revealed that geographical barriers and poor healthcare infrastructure compound the effects of poverty. Long distances to healthcare facilities and shortages of health personnel discourage timely healthcare seeking behaviour. Consequently,

poverty remains a major obstacle to achieving equitable healthcare access and improved health outcomes in rural communities of Yobe State.

The Social Determinants of Health Theory provides a useful framework for understanding these challenges. Poor households not only lack financial resources but also experience educational disadvantages, poor living conditions, and limited access to public services. These interconnected factors contribute to persistent health inequalities. Addressing healthcare access therefore requires a comprehensive approach that combines poverty reduction strategies with health system strengthening interventions.

Policy Recommendations

1. **Strengthen Primary Healthcare Services:** Government should invest in upgrading rural healthcare facilities and ensuring the availability of essential medicines and qualified healthcare workers.
2. **Expand Health Insurance Coverage:** The National Health Insurance Authority should intensify efforts to enrol rural populations through subsidized community-based health insurance schemes.
3. **Improve Rural Infrastructure:** Better roads and transportation systems would reduce geographical barriers to healthcare access.
4. **Enhance Health Education:** Community-based health education programs should be implemented to improve health awareness and encourage healthcare utilization.
5. **Promote Poverty Reduction Programs:** Income-generating initiatives, agricultural support programs, and social protection schemes should be strengthened to improve household economic conditions.
6. **Increase Healthcare Funding:** Government should allocate more resources to rural healthcare development and ensure effective monitoring of healthcare expenditures.

CONCLUSION

Poverty remains a significant barrier to healthcare access in rural communities of Yobe State, Nigeria. Financial constraints, inadequate healthcare infrastructure, transportation difficulties, low educational attainment, and limited health insurance coverage collectively undermine healthcare utilization among poor households. Addressing these challenges requires integrated interventions that combine poverty alleviation with healthcare system improvements. Such efforts will contribute to better health outcomes, reduced inequalities, and sustainable development in Yobe State and Nigeria as a whole.

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