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SOCIO-DEMOGRAPHIC CORRELATES OF PERCEPTION AND AWARENESS OF OUT-OF-POCKET HEALTH EXPENDITURES AMONG HOUSEHOLD HEADS IN GWAGWALADA AREA COUNCIL, ABUJA, NIGERIA

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Abstract

In Nigeria, the healthcare financing landscape is dominated by out-of-pocket (OOP) payments. Although the National Health Insurance Scheme (NHIS) was launched in 1999 to mitigate financial hardship, its optional and limited coverage leaves many Nigerians vulnerable. This study aimed to assess the perception, awareness of OOP health expenditures and to explore their associations with socio-demographic characteristics among household heads in Gwagwalada Area Council, Abuja. A descriptive cross-sectional study was conducted among 255 household heads using a cluster sampling method. Data were collected via interviewer-assisted questionnaires and analyzed using SPSS version 21. Descriptive statistics were computed, and Chi-square tests were employed to identify associations at a 5% significance level. The majority of respondents were male (86.3%), married (63.9%), and had attained tertiary education (44.3%). About 97.6% viewed OOP health spending unfavorably. Awareness was generally high (81.2%), but significantly lower among respondents from low socio-economic classes ($p<0.05$). Only 32.5% were enrolled in NHIS. Socio-demographic factors such as age, education, and religion significantly influenced both perception and awareness ($p<0.05$). High levels of perception and awareness of OOP expenditures exist among household heads particularly among low-income groups. To enhance healthcare utilization and financial protection, targeted policy efforts are needed to expand NHIS coverage and address socio-economic disparities.

Keywords: Out-of-pocket expenditure, healthcare financing, awareness, perception, household heads, NHIS.

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Introduction

Out-of-pocket (OOP) healthcare expenditures refer to direct payments made by individuals to healthcare providers at the point of service. These include official user fees, co-payments under benefit schemes, payments to private providers, and informal charges such as those made outside formal channels or beyond the scope of health insurance benefits [1]. OOP costs can involve direct payments to various entities, including public and private hospitals, mission-run facilities, drug vendors, and traditional healers. The impact of these expenditures depends on disease severity, service location, and the payer's financial capacity [2].

Globally, OOP expenditures remain a significant concern. For instance, the United States recorded $4.3 trillion in health expenditure in 2021, with 10% paid out-of-pocket [3]. In China, OOP spending for both outpatient and inpatient care has more than tripled over the past two decades [4]. In India, studies show that OOP healthcare spending continues to increase, disproportionately affecting rural and low-income populations [5].

Nigeria faces a persistent challenge in healthcare financing. Despite efforts to promote Universal Health Coverage (UHC), over 70% of healthcare financing is sourced from OOP payments, leading to catastrophic health expenditures (CHE) for many households [6, 7]. Catastrophic expenditure is defined as health spending that exceeds a given threshold of household income, often resulting in impoverishment [8].

To address this, the World Health Organization (WHO) in 2010 recommended a shift from OOP payments to prepaid mechanisms like health insurance to ensure equitable and affordable access to healthcare [9]. However, Nigeria's public health financing has remained low, averaging around 5% of the national budget—far below the 15% benchmark recommended globally[10]. Furthermore, NHIS coverage remains limited, with only about 5% of the population enrolled, primarily among formal sector employees [9,10].

The 2014 National Health Act sought to strengthen the health system, yet access to financial protection remains limited, especially in the informal sector [11,12]. This study seeks to evaluate household heads' perceptions, awareness regarding OOP expenditures, and how these factors relate to the utilization of healthcare services in Gwagwalada Area Council, Abuja.

Materials and Methods

Study Area

This study was conducted in Gwagwalada Area Council, one of the six area councils within the Federal Capital Territory (FCT) of Nigeria. According to the 2006 census, Gwagwalada had a population of approximately 157,770 people, occupying an area of 1,043 km^2. The region experiences a tropical climate with distinct dry and rainy seasons, and average annual temperatures range from 30°C to 37°C, peaking in March[24].

Study Population

The target population comprised heads of households residing in Gwagwalada Area Council. These individuals were selected as primary respondents due to their key role in household decision-making, including healthcare financing.

Study Design

A descriptive cross-sectional study design was employed to assess the awareness and perception of out-of-pocket (OOP) healthcare expenditure among heads of households.

Sampling Technique

A cluster sampling technique was utilized. Firstly, all 10 political wards within the Area Council were identified. From these, five wards were selected using simple random sampling technique. Within each selected ward, eligible households were identified and all available and consenting heads of households were studied.

Inclusion Criteria

- Heads of households aged 18 years and above.
- Residents of Gwagwalada Area Council.
- Willingness to provide informed consent.

Exclusion Criteria

- Individuals below 18 years of age.
- Adults still financially dependent on parents or guardians.

Sample Size Determination

A total sample size of 255 was calculated based on the standard formula for estimating proportions, accounting for a 10% non-response rate.

Data Collection Instrument

Data were collected using a structured, interviewer-assisted questionnaire designed by the researchers. The instrument was pretested in another Area Council within North-Central Nigeria to validate its reliability. The questionnaire was organized to gather information on demographics, awareness, perception related to OOP expenditures.

Data Analysis

Data were analysed using SPSS version 21. Descriptive statistics such as frequencies, percentages, and charts were used to summarize the data. Chi-square tests were applied to assess associations between categorical variables. A p-value of less than 0.05 was considered statistically significant.

Awareness and Perception Scoring: Each 'Yes' response was scored as 2, while 'No' and 'I don't know' were scored as 1. Respondents scoring ≥5 were categorized as having good awareness or perception; scores below 5 indicated poor awareness or perception.

Socioeconomic Classification: A composite index based on education and monthly household income was developed. Scores ranged from 1 to 3 for education (none/primary = 1, secondary = 2, tertiary/postgraduate = 3) and income (≤₦50,000 = 1, ₦50,001–₦90,000 = 2, >₦90,000 = 3). Aggregated scores classified respondents into low (3 or below), middle (4–6), and high (7–9) socio-economic classes.

Ethical Considerations

Ethical approval was obtained from the Health Research Ethics Committee of the University of Abuja Teaching Hospital, Gwagwalada. Participants were fully informed about the purpose of the study, and informed consent was obtained. Anonymity and confidentiality were strictly maintained, and participation was entirely voluntary.

Results

Socio-Demographic Characteristics

Among the 255 household heads surveyed, the majority were male (86.3%), married (63.9%), and engaged in unskilled labour (54.1%). Most participants were within the age range of 30–39 years (40.8%). Additionally, 44.3% had tertiary education, and 64.3% identified as Christians.

Perception of Out-Of-Pocket (Oop) Expenditures

A vast majority of respondents (97.6%) held a negative perception of OOP expenditures, regarding them as an unfavourable means of financing healthcare services. This negative perception was significantly associated with age, educational level, and religion ($p < 0.05$).

Awareness of OOP Expenditures

About 81.2% of respondents demonstrated good awareness of OOP expenditures. Awareness was significantly influenced by educational level, occupation, age, marital setting, and religion ($p < 0.05$). Gender and marital status did not significantly affect awareness ($p = 0.095$ and $p = 0.241$, respectively).

Table 1. Awareness of heads of households on out-of-pocket expenditures.

Awareness Level	N (%)	P-value
Poor Awareness	48 (18.8%)	
Good Awareness	207 (81.2%)	< 0.05
Total	255 (100%)	

Associations between Socio-Demographic Factors and OOP Perception

Age, education level, and religion were significantly associated with perception of OOP expenditures. Younger age groups (20–29) and those with lower education were more likely to have poor perception ($p < 0.05$). Religion also showed a significant

correlation, with Muslim respondents more likely to have a poor perception compared to Christians (p = 0.003).

Associations with Awareness of OOP Expenditures

Good awareness was more prevalent among respondents with tertiary education and professional occupations. Awareness levels were lowest among those with no formal education (46.2%) and those in polygamous marital settings (36.4%).

Discussion

Socio-Demographic Characteristics

The study revealed that the majority of households were headed by men, consistent with findings from previous studies in Nigeria, such as those by Audu et al. and Ajayi et al.[1,2]. Most respondents were married, with tertiary education, and primarily engaged in unskilled labor. These findings reflect the prevailing socio-economic conditions in peri-urban Nigerian communities.

The age distribution showed a concentration of household heads in the 30–39 age group, aligning with the productive age range and mirroring trends seen in similar community-based studies. Interestingly, while most respondents were married were monogamous, contrasting patterns were observed in other regions, where polygamy was more common [2].

Socio-economic classification indicated that the middle class made up the largest proportion, followed closely by the low-income class. This pattern also mirrors urban studies in Nigeria but diverges from rural trends where low-income dominance is more pronounced. A strong association was found between socio-economic status and awareness of OOP expenditures. High-income groups showed better awareness and were more likely to be covered by NHIS, while low-income respondents frequently deferred care and relied on informal healthcare providers.

Perception of Out-of-Pocket (OOP) Expenditures

Nearly all respondents (97.6%) viewed OOP expenditures negatively. This perception aligns with prior studies in sub-Saharan Africa, where households perceive OOP costs as burdensome and detrimental to their economic stability [3,4]. High healthcare costs contribute to delayed care, skipped treatment, and increased morbidity among vulnerable groups.

Perceptions varied significantly with age, religion, and educational attainment. Those with higher education were more likely to view OOP negatively and advocate for financial protection mechanisms. This supports existing evidence that education enhances health literacy and proactive healthcare behaviour [5].

Awareness of OOP Expenditures

A majority (81.2%) of household heads exhibited good awareness of OOP health expenditures. However, awareness levels were disproportionately low among the low socio-economic and low education groups. This echoes the findings of Nwokocha and Coker in Rivers State and Rathi and Shrivastava in rural India, where poor awareness hindered the uptake of health insurance schemes [6, 7].

These disparities underscore the need for targeted educational and advocacy programs aimed at increasing awareness of health financing options among disadvantaged populations.

Socio-Demographic Associations

Age, education, occupation, and religion significantly influenced respondents' perception, awareness of OOP expenditures.

Additionally, household structure and housing conditions also played roles: those in rented accommodations were more likely to always pay OOP and defer treatment, suggesting a link between housing insecurity and healthcare access.

Conclusion & Recommendations

This study explored the perception and awareness of out-of-pocket (OOP) healthcare expenditures among household heads in Gwagwalada Area Council, Abuja, Nigeria. Despite high levels of awareness (81.2%) and widespread recognition of OOP payments as unfavourable (97.6%), a substantial proportion of respondents continued to rely on OOP payments for healthcare services. Only 32.5% of respondents were enrolled in the National Health Insurance Scheme (NHIS), while more than half (54.9%) reported deferring care due to inability to pay.

Socio-demographic characteristics—including age, education level, occupation, and socio-economic status—significantly influenced awareness. Households in the low socio-economic class exhibited the highest rates of healthcare deferment and utilization of informal providers, exacerbating their vulnerability to catastrophic health expenditures (CHE). These findings highlight the persistent financial barriers to healthcare access in Nigeria and underscore the limited reach of current insurance mechanisms.

Recommendations

To Government and Policymakers

- Fully implement the coverage of the National Health Insurance Scheme (NHIS) to include informal sector workers and low-income households.
- Increase budgetary allocation to the health sector to meet the WHO-recommended minimum of 15% of national expenditure.
- Scale up community-based health insurance schemes to complement national efforts and reach marginalized populations.

To Health Workers

- Educate patients on the benefits and enrollment processes for health insurance schemes during clinic visits.
- Prioritize preventive health care andcost-effective treatment protocols and avoid unnecessary prescriptions that increase patient expenses.

To The Community

- Engage in health education campaigns, town hall meetings, and community outreach to raise awareness on health financing and the benefits of insurance.
- Collaborate with NGOs and government structures to advocate for better healthcare financing.

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Ethical Approval
Ethical clearance has been obtained from the University of Abuja Teaching Hospital.

Inform Consent
Taken from Study Participants.

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Author Contribution
Both Authors contributed equally

Conflict of Interest
None Declared

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