Economic Burden and Out-Of-Pocket Health Expenditure for Quality Healthcare Services in a Nigerian Tertiary Healthcare Facility in the South East Nigeria.

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BACKGROUND OF THE STUDY

The increasing cost of healthcare services globally has placed a significant financial burden on households, particularly in low- and middle-income countries where health insurance coverage remains inadequate. Out-of-pocket expenditure (OOPE) has emerged as a critical issue, as patients and their families often bear the direct costs of medical treatments, medications, and associated non-medical expenses. Unlike systems where healthcare is funded through taxation or insurance, OOPE exposes individuals to financial distress, with many facing catastrophic health expenditures that push them into poverty. In Nigeria, healthcare financing is predominantly structured on a "cash-and-carry" basis, where patients must pay directly for services at the point of care. This system disproportionately affects low-income populations, who may forgo necessary treatments due to financial constraints. Despite government efforts to introduce health insurance schemes, such as the National Health Insurance Scheme (NHIS), coverage remains limited, leaving a substantial portion of the population reliant on OOPE. In an effort to address the lack of financial risk protection, the Federal Government of Nigeria launched the National Health Insurance Scheme (NHIS) in 2005 with the goals of ensuring that households are protected from the financial burden of out-of-pocket health payments and that access to quality healthcare services is made possible. The majority of low- and middle-income countries (LMICs), including Nigeria, are grappling with the issue of poverty. Financial protection ensures that households do not face financial hardship and become impoverished as a result of seeking healthcare. The National Health Insurance Scheme (NHIS) was introduced to provide social health insurance (SHI) to Nigerians and ensure Universal Health Coverage (UHC). (WHO; 2010). However, according to the National Insurance Scheme (2019), federal government employees are the only ones required to participate in the NHIS programs, which fall under the categories of Formal Sector, Informal Sector, and Vulnerable Sector. In contrast, state government employees are not legally aentitled to be beneficiaries

Out-of-pocket expenditure (OOPE) represents a significant financial burden for households, particularly in low- and middle-income countries where healthcare financing mechanisms remain inadequate (Palal et al., 2023). Despite the implementation of government-funded health insurance schemes and social security programs, a substantial proportion of patients continue to incur high OOPE due to gaps in coverage, inefficient service delivery, and limited accessibility to affordable healthcare (Rashid et al., 2024). Studies indicate that OOPE not only exacerbates financial strain but also negatively impacts quality of life (QoL), particularly among vulnerable populations such as those living with chronic illnesses like HIV and cancer (Rashid et al., 2024; Verma et al., 2023). The persistence of OOPE is often attributed to structural inefficiencies in public healthcare systems, including long waiting times, inadequate infrastructure, and shortages of essential medicines, which compel patients to seek care from private providers despite higher costs (Kamath et al., 2024).

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In India, OOPE constitutes nearly 47% of total health expenditure, significantly higher than in many other developing nations (Sivarchaka et al., 2024). Although initiatives such as Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) aim to reduce financial barriers, gaps in awareness and implementation limit their effectiveness, leaving many patients to bear substantial healthcare costs (Sivarchaka et al., 2024). Research highlights that patients often prioritise perceived quality over cost, demonstrating a willingness to pay (WTP) more for superior healthcare services, particularly in tertiary care settings (Hsu et al., 2021). However, disparities in healthcare access and affordability persist, with rural populations and low-income groups disproportionately affected by catastrophic health expenditures (Ghoshal et al., 2024).

The relationship between OOPE and healthcare quality remains complex. While some studies suggest that higher OOPE may correlate with better service quality due to increased provider effort (Gage et al., 2021), others find no significant association, indicating that financial burdens do not necessarily translate into improved outcomes (Walsan et al., 2023). Furthermore, informal payments and bribery in public healthcare facilities exacerbate financial distress, undermining trust in the system and deterring patients from seeking timely care (Landrian et al., 2020). Patient satisfaction, a critical measure of healthcare quality, is often compromised by high OOPE, long waiting times, and inadequate service delivery, particularly in government hospitals (Das, 2019).

In Nigeria, where healthcare is predominantly financed through out-of-pocket payments, user fees have been shown to reduce healthcare uutilisationamong low-income populations, exacerbating inequities in access (Amaghionyeodiwe, 2018). Similarly, in Sri Lanka, despite free public healthcare, rising OOPE reflects patient dissatisfaction with public sector quality, driving demand for private services (Pallegedara & Grimm, 2018). These findings highlight the need for policy interventions that enhance public healthcare quality while reducing financial barriers to access.

Within the Nigerian context, David Umahi Federal University Teaching Hospital (DUFUTH) serves as a leading healthcare provider in Ebonyi State, catering to a diverse patient population, including low-income earners and rural dwellers. Given the increasing concerns about healthcare affordability and quality, understanding patients' attitudes and willingness to pay for healthcare services is essential for policy formulation. While some patients may pprioritisecost and opt for public healthcare despite perceived quality issues, others may be willing to pay higher fees for perceived superior care in private facilities. Patient satisfaction is a crucial measure of healthcare quality as it provides information on the provider's success at meeting patients' expectations and is a key determinant of patients' perspective behavioral intention.

However, existing studies highlight that OOPE is influenced by factors such as income levels, health insurance coverage, perceived service quality, and accessibility of healthcare facilities. However, limited research has explored patient perspectives in tertiary hospitals within Nigeria, particularly in the Southeast region. This study aims to fill this gap by examining patients' attitudes and willingness to pay for quality healthcare services at DUFUTH. Findings will provide understandings into healthcare financing challenges and inform policies aimed at reducing financial barriers while improving service delivery, thereby contributing to broader discussions on universal health coverage and equitable healthcare access.

The study is grounded in the credit that sustainable healthcare systems must balance affordability with quality. By assessing patient preferences and financial capacities, policymakers can design targeted interventions such as expanded insurance coverage, subsidized care, and improved public healthcare infrastructure to improve accessibility and reduce the economic burden of healthcare on Nigerian households.

Statement of the Problem

Notwithstanding efforts to improve healthcare financing in Nigeria, out-of-pocket expenditure (OOPE) remains the dominant payment method for medical services, placing a heavy financial burden on patients and their families. Many individuals, particularly in low-income and rural communities, struggle to afford quality healthcare, leading to delayed treatments, worsened health outcomes, and increased poverty rates. While government and private health insurance schemes exist, low enrollment rates and limited coverage mean that most patients still rely on direct payments for healthcare services.

At David Umahi Federal University Teaching Hospital (DUFUTH), patients often face high healthcare costs, including consultation fees, diagnostic tests, medications, and transportation expenses. However, there is limited understanding of patients' willingness to pay (WTP) for improved healthcare services and the factors influencing their payment decisions. Without this knowledge, policymakers and hospital administrators cannot design effective strategies to make healthcare more affordable and accessible while maintaining quality standards.

This study seeks to address these gaps by investigating: (I) How willing are patients to pay out-of-pocket for quality healthcare services at DUFUTH? (II) What factors influence their willingness or reluctance to pay? (III) How do socioeconomic status, perceived service quality, and insurance coverage affect OOPE decisions?

Objectives of the Study

The study general objective is to assess the economic burden and out-of-pocket health expendicture for quality healthcare services at David Umahi Federal University Teaching Hospital (DUFUTH) with the following specific objectives which will help policymakers and healthcare administrators develop targeted interventions to reduce financial burdens and enhance healthcare accessibility in Nigeria:

I. To determine the proportion of patients willing to pay out-of-pocket for improved healthcare services at DUFUTH.

II. To identify the key factors influencing patients' willingness or unwillingness to pay for healthcare services, including income levels, perceived quality, and insurance status.

III. To evaluate the relationship between socioeconomic status and out-of-pocket healthcare expenditure among patients at DUFUTH.

IV. To analyze the role of health insurance schemes in reducing OOPE.

Research Questions

To align with the study's objectives, the following research questions will guide the investigation:

1. What proportion of patients at David Umahi Federal University Teaching Hospital (DUFUTH) are willing to pay out-of-pocket for improved healthcare services?

2. What are the key factors influencing patients' willingness or unwillingness to pay for healthcare services at DUFUTH and is there a significant relationship between perceived service quality and patients' willingness to pay for healthcare services?

3. How does socioeconomic status (income, education, occupation) affect out-of-pocket healthcare expenditure among patients at DUFUTH?

4. Does health insurance coverage reduce the likelihood of high out-of-pocket healthcare expenditures among patients?

To Test the Null Hypotheses (For Statistical Testing)

I. H_{o1}: Less than 50% of patients at DUFUTH are willing to pay out-of-pocket for improved healthcare services.

II. H_{o2}: There is no significant relationship between patients' income and their willingness to pay for healthcare services.

III. H_{o3}: Perceived service quality does not influence patients' willingness to pay for healthcare.

IV. H_{o4}**:** Health insurance status has no significant effect on out-of-pocket healthcare expenditures.

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Scope of the Study

This study focuses on examining patients' attitudes and willingness to pay (WTP) for quality healthcare services at David Umahi Federal University Teaching Hospital (DUFUTH). The study will be conducted exclusively at DUFUTH, a tertiary healthcare facility in Ebonyi State, Nigeria. It will cover both outpatient and inpatient departments to capture diverse patient experiences. The study will be limited to adult 18+ because of the following reasons: Legal Capacity for Financial Decisions - at 18, individuals in Nigeria are legally recognized as adults capable of making independent financial decisions, including healthcare payments. This ensures that respondents can reliably assess their willingness and ability to pay for services. Also, autonomy in healthcare choices - adults (18+) typically make their own healthcare-seeking decisions, unlike minors who depend on parents/guardians. Economic independence - though not universal, most individuals aged 18+ have some level of income (formal or informal) or control over household resources, making their OOP expenditure patterns more relevant to the study's objectives. For ethical considerations – Research involving minors requires additional consent protocols like parental assent. Limiting the study to adults simplifies ethical approvals while maintaining data reliability. Lastly, it aligns with Global Health Research Standards – Many studies on healthcare financing (e.g., AB-PMJAY evaluations in India, WHO OOP expenditure assessments) use 18+ as a standard cutoff for analyzing patient-borne costs.

Significance of the Study

The significance of this study lies in its comprehensive examination of out-of-pocket expenditure (OOPE) in healthcare, addressing critical gaps in existing literature and offering actionable insights for policymakers, healthcare providers, and patients. It holds significant importance for multiple stakeholders, including policymakers, healthcare providers, patients, researchers, and society at large. For policymakers, the findings provide crucial evidence to refine existing health insurance schemes like Ayushman Bharat-PMJAY by identifying coverage gaps that lead to residual out-of-pocket expenses, thereby supporting the goal of Universal Health Coverage. The study also highlights the pervasive issue of informal payments in public health facilities, underscoring the urgent need for anti-corruption measures and systemic reforms to protect vulnerable patients from exploitation. Healthcare providers and institutions can utilize these insights to improve service delivery by addressing patient dissatisfaction with long wait times, drug shortages, and infrastructure deficiencies, while also streamlining insurance claim processes to enhance patient experiences.

For patients, particularly those from low-income backgrounds and those managing chronic conditions like cancer, diabetes, or HIV, the study raises awareness about their healthcare rights and the financial implications of treatment choices, empowering them to make more informed decisions. Academically, the research contributes novel insights by adopting a comprehensive approach that examines both direct medical costs and indirect expenses such as transportation and lost wages, while also employing robust mixed-methods methodology to capture nuanced perspectives. From a broader socioeconomic perspective, the study's findings help mitigate poverty risks associated with catastrophic health expenditures and promote greater equity in healthcare access across different income groups, genders, and geographic regions.

By analyzing successful insurance models and identifying best practices, the study offers replicable strategies to strengthen health systems nationwide. Ultimately, this research makes a vital contribution toward achieving Sustainable Development Goal 3.8 on Universal Health Coverage while providing actionable recommendations to reduce financial hardship from medical expenses, thereby fostering a more equitable and patient-centered healthcare ecosystem in India and other similar healthcare contexts globally. The study's multifaceted examination of out-of-pocket expenditures bridges critical knowledge gaps and provides a foundation for transformative policy changes that can improve healthcare affordability and accessibility for all segments of society.

THEORETICAL FRAMEWORK

Institutional Theory: The study will employ institutional theory to analyze patients' attitudes towards informal payments, highlighting the misalignment between formal institutions (laws) and informal institutions (unwritten rules) as a key factor influencing the prevalence of out-of-pocket payments in DUFUTH.

Institutional Irregularity: previous research underlines that patients' behaviors seem to be shaped by the institutional environment in which they are embedded (Scott, 2008). Indeed, in all societies the institutional environment is shaped by both formal and informal rules. Generally, an institution can be seen as a set of rules respected by the citizens of a country (Denzau and North, 1994; Mathias et al., 2014). Formal institutions are the written codified rules and informal institutions are the "socially shared rules, usually unwritten, that are created, communicated and enforced outside of officially sanctioned channels" (Helmke and Levitsky, 2004, p. 727). Seen through the institutional theory lens, early research has viewed formal institutional failures as explaining the prevalence of informal payments in the healthcare system (Lewis, 2002; Ensor, 2004). Later, the institutional framework for the healthcare system has depicted the complex issue of institutional asymmetry caused by a lack of alignment of the codified rules of formal institutions to the norms, values and beliefs or the unwritten rules of informal institutions (Baumol and Blinder, 2008; Williams and Horodnic, 2017, 2018a, b; Kukutschka, 2021). As such, rooted in a variant of the institutional theory developed by North (1990), informal payments made by patients are seen to have a close relationship to the asymmetry between the formal and informal rules. Informal payments appear to constitute an attempt to escape formality and follow common informal unwritten rules that guide patients' behavioral patterns. As such, to explain the prevalence of informal payments, understanding this institutional asymmetry process and its determinants is required. Previous research reveals several systemic factors that explain this institutional irregularity. The structural conditions related to failures of the formal institutional environment leading to a higher widespread of informal payments include: economic determinants (i.e., low allocation level for public health expenditure) or poor government performance (Cohen, 2012; Tambor et al., 2013; Stepurko et al., 2015). Other studies have identified the influence of the formal institutional imperfections (voids) and formal institutions inefficiencies (Horodnic and Williams, 2018; Incaltarau et al., Kukutschka, 2021) on the level of institutional asymmetry and therefore, the extent of the informal payments. They also reveal the influence of institutional imperfections such as the lower levels of expenditure on healthcare (Balabanova and McKee, 2002; Burnett et al., 2016) or an inadequate budget allocation for healthcare services (Gaal and McKee, 2004; Kutzin et al., 2010; Baji et al., 2012; Tomini et al., 2012a) as well as inefficiencies such as the low level of government performance, the low quality of healthcare system (Lewis, 2002; Gaal and McKee, 2004; Rechel et al., 2011; Tambor et al., 2013; Tomini and Groot, 2013; Horodnic et al., 2021) or corruption (Williams and Horodnic, 2017). Indeed, synthesizing the previous findings in literature, Williams (2017) shows that there is a link between various forms of corruption (such as bribes, state capture or the use of personal connections) and the level of institutional asymmetry. Nevertheless, these drivers will have a different signification for different countries, due to different levels of development. For instance, in post-communist transition economies, where the level of development of the public services system is poor and corruption practices are prevalent, informal payments occur more often and the institutional asymmetry approach is more relevant (Williams, 2017; Williams and Horodnic, 2018b). For example, research conducted in 2010 by Stepurko et al. (2015) in Central and Eastern regions of Europe indicates Romania (35%) and Lithuania (25%) as countries where informal payments are more prevalent. Other research, on 11 countries of the same region based on a Eurobarometer survey undertaken in 2021, show Romania (22%) followed by Bulgaria (19%), Hungary (19%), Lithuania (19%) and Croatia (15%) as countries where informal payments occur more often (Horodnic et al., 2021). However, not only the shortcomings of the formal institutions influence the distribution of the informal payments by patients. Indeed, previous research shows that informal institutions play an important role in determining the behavior of the individuals. For example, ethical aspects and social custom of showing appreciation by paying informally also play a role in shaping individuals' behavior (Stepurko et al., 2015; Williams and Horodnic, 2018a, b). Indeed, despite the shortcomings of the formal institutions, the informal payments do not occur when informal institutions are aligned to the formal institutions (Williams and Horodnic, 2018b). As such, if the informal institutions are "complementary" and support the rules set by the formal institutions, the practice of paying informally for public medical services does not occur despite the weaknesses of the formal institutional environment. However, when the informal institutions are "substitutive" to the formal institutions and prescribe discordant rules, the practice of informal payments occur. As such, these payments only occur when there is a misalignment between the informal and formal institutions which results in perceiving this type of payment as legitimate and acceptable (Williams and Horodnic, 2018b).

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EMPIRICAL LITERATURE REVIEW

Out-of-pocket expenditure (OOPE) directly reflects the financial burden households bear for healthcare services, and despite the availability of social security schemes and government-funded healthcare benefits, a significant proportion of Indian households continue to incur substantial OOPE. To understand the underlying reasons for this persistent financial strain, a comprehensive assessment of patient attitudes and healthcare-seeking behavior is necessary. In a study conducted by Palal et al. (2023), purposive sampling was employed to conduct 16 in-depth interviews within the catchment areas of urban and rural health centers affiliated with a tertiary healthcare hospital. The interviews, conducted in Marathi and Hindi, were audio-recorded after obtaining informed consent, transcribed, translated into English, and subjected to thematic analysis. The findings revealed that while most participants acknowledged the availability of facilities and experienced doctors in government hospitals, dissatisfaction with service quality and inconvenience deterred them from utilizing public healthcare services. Additionally, although some participants had experience with government health insurance schemes, nearly all reported cumbersome claim procedures and negative experiences. A significant portion of healthcare expenses was attributed to medication and consultation costs, with some participants regretting not enrolling in insurance schemes. The study concluded that awareness of government health schemes was insufficient and emphasized the critical role of government-financed health insurance in reducing OOPE, alongside efforts to improve accessibility and quality of public healthcare services.

Similarly, Rashid et al. (2024) examined the impact of OOPE on the quality of life (QoL) of people living with HIV (PLHIV), highlighting the risk of financial impoverishment due to healthcare costs. The study, conducted among 232 patients attending an Anti-Retroviral Therapy (ART) center in a tertiary care hospital in Kolkata, utilized a pre-designed, pre-tested structured schedule to collect data. Multivariable binary logistic regression was employed to assess associations between socio-demographic factors, OOPE, and QoL. Findings indicated that 41.4% of participants rated their QoL as neither poor nor good, while 18.9% reported a 'good' QoL. All participants incurred OOPE, with 20.7% attributing expenses to direct healthcare costs. Key determinants of higher OOPE included younger age (18-39 years), joint family structures, HIV-infected family members, and comorbidities. Conversely, older age (≥40 years), unskilled occupations, and lower-middle-income status were associated with poorer QoL. The study concluded that increased OOPE correlated with worsened QoL, underscoring the need for financial protection mechanisms for PLHIV.

The financial burden of OOPE is particularly pronounced among cancer patients, as demonstrated by Verma et al. (2023) in a cross-sectional study of 400 cancer patients at a tertiary care center in Hyderabad. Data collected via face-to-face interviews revealed a mean OOPE of $1,032.65 (₹84,643.20), encompassing both medical and non-medical expenses. Leukemia and colon cancer were associated with the highest OOPE, while treatment modalities combining radiotherapy and surgery incurred the greatest costs. The study emphasized the unique contribution of quantifying OOPE across different cancer types and treatment approaches, advocating for government policies to mitigate financial distress among cancer patients.

Patient willingness to pay (WTP) for improved healthcare quality was explored by Hsu et al. (2021) through a contingent valuation method and SERVQUAL scale in an academic medical center. The study found that patients were willing to pay higher copayments for enhanced service quality, particularly in reliability and assurance, compared to hierarchical medical care implementation. Regression models confirmed that perceived service quality positively influenced WTP, suggesting that policymakers should prioritize service quality improvements to align with patient expectations.

In another study, Zheng et al. (2020) analyzed the impact of economic recessions on OOP healthcare payments across 60 countries from 2000 to 2016. While some countries exhibited increased WTP during economic downturns, the overall relationship was inconsistent, influenced by variations in healthcare systems and economic development levels. The 2008 financial crisis exacerbated financial constraints, reducing WTP due to diminished employee compensation. The study highlighted the need for economic resilience in healthcare financing to buffer against recessionary impacts.

Gage et al. (2021) investigated the association between OOP payments and primary healthcare quality in six low-income countries (Afghanistan, DRC, Haiti, Nepal, Senegal, and Tanzania). Analyzing Service Provision

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Assessments data, the study found that 42% of clients incurred OOP expenses, which were positively correlated with longer visit durations, thorough history-taking, and comprehensive counseling, particularly in private for-profit facilities. The findings indicated that higher-quality care often required additional payments, exacerbating financial burdens for families already facing high healthcare costs.

Epstein et al. (2021) explored an alternative payment model, the Patient-Chosen Gap Payment (PCGP), through interviews with GPs and patients in Australia. Participants emphasized the difficulty in valuing healthcare services, the importance of patient-centered care, and the need for sustainable primary care models. The study suggested that PCGP could incentivize quality care without restricting access, though further research is needed to assess real-world applicability.

Nübler et al. (2023) examined OOP healthcare spending in Germany, distinguishing between necessary and optional expenditures. Using household budget survey data, the study decomposed the Kakwani index to assess regressiveness across spending categories. Findings indicated that categories with higher optional spending (e.g., enhanced services) were less regressive than those dominated by essential care, suggesting inequalities in healthcare quality access.

Pallegedara and Grimm (2018) analyzed rising OOPE in Sri Lanka's predominantly free public healthcare system, attributing increased private sector utilization to income growth and dissatisfaction with public service quality. The study warned that declining middle-class reliance on public healthcare could undermine tax-based financing, necessitating quality improvements in public facilities.

Stepurko et al. (2011) investigated informal healthcare payments in Central and Eastern Europe, identifying institutional failures and governance deficiencies as key drivers. The study highlighted persistent public tolerance for informal payments, posing challenges for policy reforms aimed at eliminating such practices.

Rosenberg et al. (2022) assessed OOPE for mental health services in Australia, noting rising costs and regional disparities. The study called for policy interventions to ensure equitable access, particularly for low-income populations.

Kamath et al. (2024) studied OOPE in Karnataka, India, revealing a preference for private healthcare despite higher costs, driven by perceived quality differences. Participants emphasized the need for expanded insurance coverage and public healthcare improvements to reduce financial burdens. Landrian et al. (2020) documented bribe requests and OOPE among women delivering in public facilities in Uttar Pradesh, India. Bribe requests were associated with reduced quality of care and higher maternal complications, highlighting systemic corruption and financial barriers. Jeetoo and Jaunky (n.d.) assessed OOPE for non-communicable diseases (NCDs) in Rajasthan, India, finding significant expenses for diagnostics, medications, and lost wages. The study advocated for insurance coverage and NCD management centers to alleviate financial strain. Mehta et al. (2022) evaluated patient satisfaction and OOPE in a tertiary care hospital in Hyderabad, linking longer wait times and unavailability of medications to dissatisfaction. The study recommended reducing administrative delays and improving drug availability to enhance patient experiences. Similarly, Sridhar and G (2022) analyzed OOPE among hemodialysis patients in Karnataka, India, reporting substantial costs despite insurance coverage. Frequent hospitalizations and high treatment expenses underscored the need for expanded financial protection mechanisms.

Das (2019) assessed patient attitudes toward pharmaceutical care in Jordan, finding strong WTP for pharmacist-led services to reduce medication-related problems. The study highlighted the potential for expanded pharmacist roles in patient care. Sivarchaka et al. (2024) evaluated satisfaction under India's Ayushman Bharat scheme, noting high satisfaction with financial coverage but concerns over cleanliness and OOPE for uncovered services. Ghoshal et al. (2024) explored rural OOPE in Tamil Nadu, India, finding limited willingness to pay due to reliance on free public services. The study called for improved public healthcare infrastructure to prevent impoverishment. Chitra (2024) examined OOPE among CKD patients with voluntary health insurance in India, identifying gaps in coverage and patient awareness. The study recommended policy reforms to enhance transparency and affordability. Research by Sekar et al. (2024) assessed health insurance coverage in Kerala, India, finding reduced but persistent OOPE among insured patients. Local government awareness campaigns were crucial for enrollment, though service availability remained a barrier. Harish et al. (2020) studied WTP for

hospital services in Iran, linking service quality and patient satisfaction to higher WTP. The findings emphasized the role of quality improvements in sustaining healthcare financing. Zarei and Ardahaei (2020) analyzed WTP for medical care in Ethiopia, finding affordability challenges despite willingness. The study proposed tiered payment strategies to enhance accessibility. Amaghionyeodiwe (2018) examined user fees in Nigeria's public healthcare system, noting reduced utilization among low-income groups. The study recommended income-based fee structures to ensure equity. Basu et al. (2020) assessed OOPE for diabetes care in Delhi, India, linking high appointment costs to missed visits. The study advocated for reduced follow-up frequency and strengthened medication access. Remesh et al. (2024) documented OOPE among antenatal women in Delhi, highlighting significant costs for diagnostics and medications. Salary-based payments predominated, indicating financial strain. Daher et al. (2024) studied no-show behavior in Malaysia, linking trust and perceived utility to willingness for upfront payments. The findings suggested strategies to reduce appointment defaults.

Imtiaz et al. (2020) analyzed OOPE determinants in Bangladesh, finding chronic illness and service quality as key drivers. The study emphasized the need for optimized payment policies.

Costs are a burden on healthcare systems and patients. Missed treatments can have health and financial consequences. Compared to other health services, dental treatments are only covered in parts by statutory health insurance (SHI). Using the example of dental crowns for a cost-intensive treatment, research aims to investigate whether certain treatment attributes determine patients' treatment choice, and out-of-pocket payments represent a barrier to access dental care. Methods They conducted a discrete-choice-experiment by mailing questionnaires to 10,752 people in Germany. In presented scenarios the participants could choose between treatment options (A, B, or none) composed of treatment attribute levels (e.g., color of teeth) for posterior (PT) and anterior teeth (AT). Considering interaction effects, we used a D-efficient fractional factorial design. Choice analysis was performed using different models. Furthermore, analyzed willingness-to-pay (WTP), preference of choosing no and SHI standard care treatment, and influence of socioeconomic characteristics on individual WTP. Results Out of n = 762 returned questionnaires (response rate of r = 7.1), n = 380 were included in the analysis. Most of the participants are in age group "50 to 59 years" (n = 103, 27.1%) and female (n = 249, 65.5%). The participants' benefit allocations varied across treatment attributes. Aesthetics and durability of dental crowns play most important roles in decision-making. WTP regarding natural color teeth is higher than standard SHI out-of-pocket payment. Estimations for AT dominate. For both tooth areas, "no treatment" was a frequent choice (PT: 25.7%, AT: 37.2%). Especially for AT, treatment beyond SHI standard care was often chosen (49.8%, PT: 31.3%). Age, gender, and incentive measures (bonus booklet) influenced WTP per participant. The study provides important insights into patient preferences for dental crown treatment in Germany. hence, the willingness to pay more than the current out-of-pocket payments for what they consider to be better crown treatments. Felgner, S., & Henschke, C. (2023). However, the study called for further research on cost determinants. Walsan et al. (2023) explored inpatient OOPE variations, noting limited evidence linking costs to quality. The review highlighted the need for policy attention on equitable healthcare financing.

SUMMARY OF THE LITERATURE REVIEW

The literature consistently demonstrates that out-of-pocket healthcare expenditures (OOPE) impose a substantial financial burden on households, particularly in low- and middle-income countries, where even with government health insurance schemes, gaps in coverage and reliance on private healthcare led to significant expenditures (Palal et al., 2023; Sivarchaka et al., 2024). Studies reveal that cancer patients face particularly catastrophic costs, with mean treatment expenses exceeding ₹80,000 per episode (Verma et al., 2023), while people living with HIV experience worsened quality of life due to high medical costs (Rashid et al., 2024). Socioeconomic status significantly influences OOPE, as lower-income households spend a disproportionate share of their earnings on healthcare (Basu et al., 2020), and rural residents incur additional expenses due to limited access to public facilities and travel costs (Kamath et al., 2024). Even insured patients frequently face out-of-pocket payments for excluded services such as diagnostics and medicines, highlighting limitations in existing insurance models (Sekar et al., 2024).

Informal payments further exacerbate financial strain, with evidence from India and Eastern Europe showing that bribes for faster or better care not only increase costs but also erode trust in public health systems (Landrian et al., 2020; Stepurko et al., 2011). High OOPE discourages healthcare utilization, leading to missed medical

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appointments among diabetes patients in Delhi (Basu et al., 2020) and delayed cancer treatments in Lucknow due to financial constraints (Verma et al., 2023). Willingness to pay for healthcare varies by income, with wealthier individuals more inclined to seek private care for perceived better quality (Zarei & Ardahaei, 2020), whereas in Nigeria, user fees have been shown to deter healthcare access among the poor (Amaghionyeodiwe, 2018). While insurance schemes like India's PMJAY reduce OOPE, they do not eliminate it entirely, as patients still incur costs for uncovered services (Sivarchaka et al., 2024).

Policy interventions to mitigate OOPE must focus on expanding insurance coverage to include essential services like diagnostics and chronic care (Sekar et al., 2024), improving the quality of public healthcare to reduce dependence on private providers (Gage et al., 2021), and implementing anti-corruption measures to curb informal payments (Horodnic & Williams, 2018). The persistent financial burden of OOPE underscores the need for systemic reforms to achieve equitable and affordable healthcare access, particularly for vulnerable populations. Future research should explore innovative financing models and patient-centered policies to alleviate OOPE while advancing progress toward Universal Health Coverage in low- and middle-income settings.

Knowledge Gaps from the Literature

The existing literature reveals several critical knowledge gaps, including a lack of comprehensive studies examining the long-term socioeconomic impacts of catastrophic out-of-pocket expenditures on household welfare, insufficient research on the effectiveness of different health financing models in reducing OOPE across various healthcare systems, and limited evidence on optimal strategies to eliminate informal payments while maintaining healthcare quality. Additionally, there is inadequate exploration of how digital health technologies could mitigate OOPE through improved service efficiency and reduced corruption, as well as a paucity of comparative studies analyzing the differential impacts of OOPE on vulnerable subgroups such as women, elderly populations, and rural communities. Furthermore, while numerous studies document OOPE in tertiary care settings, there remains a significant research gap regarding primary healthcare expenditures and their role in either preventing or exacerbating financial burdens through early intervention or delayed care-seeking behaviors. The literature also lacks robust cost-benefit analyses of policy interventions aimed at OOPE reduction, particularly in evaluating the trade-offs between expanded insurance coverage and sustainable healthcare financing. Finally, there is minimal research exploring patient perspectives on acceptable levels of cost-sharing and willingness to participate in alternative payment mechanisms that could make healthcare more affordable without compromising quality or access.

RESEARCH METHODOLOGY

Materials and Methods

This chapter provides a detailed explanation of the research design, population, sampling techniques, data collection methods, and analytical procedures used in the study.

Research Design

This study adopts a quantitative cross-sectional survey design to assess patients' willingness to pay (WTP) and attitudes toward out-of-pocket (OOP) healthcare payments at David Umahi Federal University Teaching Hospital (DUFUTH). This design is suitable because it allows for the collection of data at a single point in time, it equally facilitates the measurement of relationships between variables (e.g., income level, perceived quality, and WTP), and it is cost-effective and fit for hospital-based studies with limited timeframes.

Study Area

The study area is David Umahi Federal University Teaching Hospital (DUFUTH), situated at Uburu in Ohaozara, Ebonyi State, southeastern Nigeria, with geographical coordinates approximately 6°19' N latitude and 8°06' E longitude. DUFUTH serves as the primary tertiary healthcare facility in Ebonyi State, a predominantly agrarian region with an estimated population of 3.5 million, bordered by Benue State to the north, Cross River State to

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the east, Abia State to the south, and Enugu State to the west. The hospital's catchment area incorporates all 13 Local Government Areas (LGAs) of Ebonyi State, including, while also receiving referrals from neighboring states such as Enugu. Ohaozara LGA, where DUFUTH is located, represents an urban-rural interface characterized by rapid urbanization, subsistence farming communities, and developing infrastructure. The region exhibits a high burden of communicable and non-communicable diseases, with DUFUTH functioning as the referral center for secondary healthcare facilities across Ebonyi State and private clinics throughout southeastern Nigeria, serving a predominantly Igbo population with significant socioeconomic diversity and healthcare access challenges.

Study Population

The study targets adult patients (18 years and above) receiving outpatient or inpatient care at DUFUTH. Reason is that research involving minors requires additional consent protocols like parental assent. Limiting the study to adults streamlines ethical approvals while upholding data consistency, it also aligns with Global Health Research Standards as many studies on healthcare financing (e.g., AB-PMJAY evaluations in India, WHO OOP expenditure assessments) use 18+ as a standard cutoff for analyzing patient-borne costs. At 18, individuals in Nigeria are legally recognized as adults capable of making independent financial decisions, including healthcare payments. This ensures that respondents can reliably assess their willingness and ability to pay for services. Adults (18+) naturally make their own healthcare-seeking decisions, unlike minors who depend on parents/guardians. Though not universal, most individuals aged 18+ have some level of income (formal or informal) or control over household resources, making their OOP expenditure patterns more relevant to the study's objectives.

Inclusion Criteria

i. Patients who have used DUFUTH services within the study period.
ii. Willingness to participate in the study.

Exclusion Criteria: Patients with serious medical conditions that may impair their ability to provide informed consent or complete the questionnaire were excluded. Patients not willing to participate in the study will also be excluded. And the Minors (<18 years).

Sampling Technique and Sample Size Determination

Sampling Technique:

Stratified Random Sampling - Patients will be grouped into strata based on:

a. Department (Medical, Surgical, Pediatrics, Obstetrics & Gynecology, Oncology, etc.).

b. Age groups, gender, income levels, and type of healthcare service (inpatient/outpatient).

c. Payment type (Out-of-pocket vs. Insured).

Simple Random Sampling**:** Within each stratum, participants will be selected randomly to minimize bias.

Sample Size Techniques:

Cochran's Formula for finite populations will be used the sample size and it is estimated as follow:

$$n = \frac{Z^2 X\ P\ X\ q\ X\ N}{e^2\ (N-1) + Z^2 X\ P}$$

Where:

$n\ =\ sample\ size$

$Z = Z - score\ matching\ to\ desired\ confident\ leave 1.96\ (95\%\ confidence\ level)$

$p = 0.5\ (maximum\ variability, since\ no\ prior\ WTP\ study\ exists\ at\ DUFUTH)$

$q = 1 - p = 0.5$

$e = 0.05\ (margin\ of\ error)$

Assuming an average daily patient turnout of 500, the adjusted sample size (using finite population correction) is ~220 respondents.

Data Collection Methods

Research Instrument: A primary data with structured questionnaire will be used, dividing into four sections:

1. Socio-demographic Data (age, gender, income, education, insurance status).
2. Healthcare Utilization Patterns (frequency of visits, type of services used).
3. Attitudes toward OOP Payments (Likert-scale questions on affordability, perceived quality).
4. Willingness to Pay (WTP) (contingent valuation method with bidding scenarios).

Data Collection Procedure

During data collection, the objectives of the study will be verbally explained to each respondent, and their cooperation and consent will be sought for before commencing the administration of the questionnaires during the course of this study. And oral informed consent will be obtained from the participants.

The following procedures would be taken during the process:

i. Pre-testing: A pilot study (10% of sample size) will be conducted to refine the questionnaire.

ii. Interviewer-Administered Surveys: A trained research assistants will conduct face-to-face interviews to minimize literacy bias and assistants to distribute questionnaires in waiting areas and wards.

iii. Informed Consent: Participants will provide written consent before participation.

iv. Secondary Data we be employed to access hospital records on service costs and patient demographics (if accessible).

Eliciting Willingness to Pay: Data will be collected on the participants' attitude and willingness to out of pocket payment, to research their preferences before eliciting their maximum WTP amounts for the service. The maximum amounts that people were willing to pay will be elicited by employing the contingent valuation (CV) method using bidding game (BG) question format. The BG has been shown to be valid WTP elicitation question format in Nigeria. The respondents will be presented with the hypothetical scenario of healthcare services. In the BG iteration, they will be asked what the maximum amount they would be willing to pay for healthcare services, per episode of the service. A uniform starting point of ₦10,000 (US$6) will be used. The BG iteration is shown in Bidding Box. The final response that would be indicated will be the respondents' maximum WTP.

Bidding Box

Based on the initial dispensing cost analysis, the bidding began with an initial value of ₦10000.

1. The price of a monthly healthcare services to access is ₦10,000, are you willing to pay?
0=YES [ ] 1=NO [ ] (If answer is 'yes' go to No 2 if answer is 'No' go to No 3)

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2. What if the price is ₦ = 15,000, will you be willing to pay? 0=YES [ ] 1=NO [ ] No matter the answer, go to Question 4.
3. What if the price is ₦ = 8,000, will you be willing to pay? 0= YES [ ] 1=NO [ ] No matter the answer go to Question 4

4. What if, due to increase or other factors, the price increases? What is the maximum price you will be willing to pay per month for yourself for healthcare services bearing in mind your average monthly income and other expenses. [ ] Naira (₦)

Validity and Reliability

Validity

Content Validity: The questionnaire will be reviewed by healthcare economists and a biostatistician.

Pilot Test: a pilot study will be conducted with 30 patients (excluded from the main study) to test the questionnaire's reliability and validity. Feedback from the pilot study will be used to refine the questionnaire and ensure its effectiveness in capturing relevant data and reliability.

Cronbach's Alpha will test internal consistency of Likert-scale items (threshold: $\alpha \geq 0.7$).

Data Analysis Techniques

Descriptive Statistics

Frequencies, percentages, means, and standard deviations for socio-demographics and WTP variables (e.g., gender, insurance status).

Measures of Central Tendency: Mean, median for continuous variables (e.g., income, WTP amounts).

Inferential Statistics

3.8.2 Inferential Statistics

1. Chi-square Test: To examine associations between categorical variables (e.g., income vs. WTP).
2. Binary Logistic Regression: To identify predictors of WTP (e.g., income, education, perceived quality).
3. T-test/ANOVA: To compare mean WTP across different patient groups. i.e. One-Sample Proportion Test to test if WTP proportion exceeds 50% (Objective 1).

Software for Analysis

SPSS (v.26) or STATA will be used for statistical analysis.

Ethical Considerations

1. Ethical Approval: Ethical clearance was obtained from DUFUTH's Research Ethics Committee.
2. Informed Consent: Participants was briefed on the study's purpose, with voluntary participation.
3. Confidentiality: No personally identifiable data was included in the manuscript. Data will be stored securely.
4. Right to Withdraw**:** Participants can exit the study at any time without consequences.

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Limitations of the Study

1. Self-reporting Bias: Patients may underreport financial constraints or make a fuss of WTP.
2. Single-Institution Focus: Findings may not be generalizable to other hospitals.
3. Time Constraints: Cross-sectional design limits causal inferences.

Summary

This chapter summaries the methodological context for assessing patients' WTP and attitudes toward OOP payments at DUFUTH. The study employs a quantitative cross-sectional survey with stratified random sampling, ensuring robust and representative data. Ethical safeguards are in place to protect participants, and statistical tools will be used to derive meaningful understandings for healthcare policy recommendations.

Result Presentation

A total of 375 participants undertook this study with 162(43.3%) as male preponderance while 213(56.7%) were females. See table 4.1

Table 4.1. Gender Distribution of Partricipants

GENDER	FREQUENCY	PERCENTAGE
MALE	162	43.3
FEMALE	213	56.7
TOTAL	**375**	**100**

Table 4.2. Age Distribution of Participants

Between the ages of 18-25years, 173(46.1%) were the participants while ages 26-35years had 113(30.1%). Ages 36-45years had frequency of 17(4.5%) while ages 46-55years had 31(8.3%). Ages 55years and above had 41(11%) respectively.

AGE IN YEARS	FREQUANCY	PERCENTAGE
18-25	173	46.1
26-35	113	30.1
36-45	17	4.5
46-55	31	8.3
55+	41	11
TOTAL	**375**	**100**

Table 4.3. Highest Educational Level of Participants

Among the participants, 237(63.2%) had tertiary education while participants with no formal education had a frequency of 45(12%). Secondary level of education stood at 93(24.8%) and none of the participants had only primary education.

EDUCATIONAL LEVEL	FREQUENCY	PERCENTAGE
NO FORMAL EDUCATION	45	12
PRIMARY	0	0
SECONDARY	93	24.8
TERTIARY	237	63.2
TOTAL	375	100

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Table 4.4. Employment Status

On the employment status, civil servants stood a frequency of 145(38.7%), this was closely followed by self-employees with a frequency of 86(23.0%). unemployed has a frequency of 37(9.9%) while students have a frequency of 61(16.1%). Artisan was 20 (5.5%0 and retiree has a frequency of 26(7.0%).

EMPLOYMENT STATUS	FREQUENCY	PERCENTAGE
CIVIL SERVANT	145	38.7
SELF EMPLOYED	86	23.0
UNEMPLOYED	37	9.9
STUDENT	61	16.1
ARTISAN	20	5.3
RETIRED	26	7.0
OTHERS	0	0
TOTAL	**375**	**100**

Table 4.5. Average Monthly Income

On the average income of participants, 148(-39.5%) have average monthly income of 100,000-200,000. This is followed by average income of 20,000-50,000 with a frequency of 77(20.5%). 42(11.2%) has average monthly income of 50,000-100,000 while 54(14.4%) has average monthly income of <20,000 and > 200,000 respectively. 42(11.2%) has 50,000-100,000.

AVERAGE MONTHLY INCOME	FREQUENCY	PERCENTAGE
<20,000	54	14.4
20,000-50,000	77	20.5
50,000-100,000	42	11.2
100,000-200,000	148	39.5
>200,000	54	14.4
TOTAL	**375**	**100**

Table 4.6. Health Insurance Coverage

Out of the participates, 103(27.3%) are under health insurance coverage while 272(72.5%) are not under insurance coverage.

HEALTH INSURANCE COVERAGE	FREQUENCY	PERCENTAGE
YES	103	27.3
NO	272	72.5
TOTAL	**375**	**100**

Table 4.7a. Healthcare Utilization Patterns.

On hospital utilization, 68(18.1%) of participants have visited the hospital for the first time while 211(56.3%) visits occasionally (1-2 times a year, 54(14.4%) are frequent visitors to the hospital while 42(11.2%) are regular visitor (6 times and above a yearly).

HOW OFTEN DO YOU VISIT DUFUTH	FREQUENCY	PERCENTAGE
FIRST TIME	68	18.1
OCCASIONALLY (1-2TIMES A YEAR)	211	56.3
FREQUENTLY (3-5 TIMES YEARLY)	54	14.4
REGULARLY (6+ TIMES YEARLY)	42	11.2

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On the type of health care services frequently used, 151(40.2%) frequently use GOPD, and 79(21.1%) frequently use inpatient (admission). Emergency services stood at 91(24.3%) while 54(14.4%) frequently use diagnostic/lab services.

Table 4.7 b.

TYPES OF HEATHCARE SERVICES MOSTLY USED	FREQUENCY	PERCENTAGE
OUTPATINET(GOPD)	151	40.2
INPATIENT(ADMISSION)	79	21.1
EMERGENCY	91	24.3
DIAGNOSTIC/LAB SERVICES	54	14.4
	375	

On the reason for visit, 113(30.1%) visit DUFUTH due to proximity while 71(19.2%) visit due to affordability. Visit due to Quality of care stood at 143(38.1%) while visit due to referral stood at 47(12.6%).

Table 4.7 c

PRIMARY REASON FOR VISITING DUFUTH	FREQUENCY	PERCENTAGE
PROXIMITY	113	30.1
AFFORDABILITY	72	19.2
QUALITY OF CARE	143	38.1
REFERRAL	47	12.6

On the percentage of healthcare expenses that are borne out of pocket, 174(46.4%0 participants spend less than 25% of out-of-pocket expenses, 55(14.7%) stood at 25-50%, while 91(24.3%) stood at 51-75%.55(14.6%) stood at 75percent and above on out of pocket.

Table 4.7 d

WHAT PERCENTAGE OF YOUR HEALTHCARE EXENSES ARE OUT OF POCKET (OOP)?	FREQUENCY	PERCENTAGE
<25	174	46.4
25-50	55	14.7
51-75	91	24.3
.75	55	14.6
TOTAL	375	100

On the estimate of monthly out of pocket health spending, 45(12.3%) spend less than N5, 000 and 177(47.2%) spend N 5,000 – N 15,000 on health monthly. 153(40.5%) spend N 15,000- N30,000 monthly. No participant spent greater than N 30,000.

Table 4.7 e

ESTIMATE YOUR MONTHLY OUT OD POCKET(OOP) HEALTH SPENDING AT DUFUTH	FREQUENCY	PERCENTAGE
<5000	45	12.3
5000-15000	177	47.2
15000-30000	153	40.5
>30,000	0	0
TOTAL	375	100.

On the ones that are insured, 17(4.5%) among the insured covered for all cost while 293(78.1%) has partial cover. 65(17.4%) did not cover all cost.

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Table 4.7 f

IF INSURED, DOES YOUR INSURANCE COVER ALL COSTS	FREQUENCY	PERCENTAGE
FULLY	17	4.5
PARTIALLY	293	78.1
NOT ALL	65	17.4
TOTAL	375	100

On participants willingness to pay for better quality healthcare services, 56(14.9%) strongly disagreed, 32(8.5%) disagree. 56(14.9%) neither agree nor disagree stood at 92(24.5%), agreed while, 139(37.1%) strongly agree.

On the affordability of the current healthcare in DUFUTH, 26(6.9%) strongly disagreed, 13(3.5%) disagree, while 129(34.4%) neither agree nor disagree. 129(34.4%) agreed while 78(20.8%) strongly agreed.

On those that preferred private hospital because of better quality services eve if costlier, 140(37.3%) strongly disagree, 75(20%) disagree while 36(9.6%) neither agree nor disagree. 49(13.1%) agree and 75(20%) strongly agreed.

On government hospitals providing free highly subsidized care, 65(17.3%) strongly disagree while 13(3.5%) disagree. 52(13.9%) neither agree nor disagree. 39(10.4%), agree while 206(54.9%) strongly agree.

On the fact that long waiting time discourages me from using DUFUTH services, 116(30.9%0 strongly disagree, 13(3.5%) disagree while 52(13.9%0 neither agree noir disagree. 181(48.3%) strongly agree while 13(3.5%)

Table 4.8

	I am willing to pay more for better quality healthcare services	The current cost of healthcare at DUFUTH is affordable	I prefer private hospitals because of better service quality, even if costlier	Government hospitals should provide free or highly subsidized care	Long waiting time discourages me from using DUFUTH services
Strongly disagree (1)	56(14.9%)	26(6.9%)	140(37.3%) (	65(17.3%)	116(30.9)
Disagree (2)	32(8.5%)	13(3.5%)	75(20%)	13(3.5%)	13(3.5%)
Neither agree nor disagree (3)	56(14.9%)	129(34.4%)	36(9.6%)	52(13.9)	52(13.9%)
Agree (4)	92(24.5%)	129(34.4%)	49(13.1%)	39(10.4%)	13(3.5%)
Strongly agree (5)	139(37.1%)	78(20.8%)	75(20%)	206(54.9)	181(48.3%)
Total	**375**	**375**	**375**	**375**	**375**

Sectioon D: Willingness to Pay (WTP) Assesment

On the maximum amount participants are willing to pay for improved health care services, 26(6.9%) agreed between 500-1,000. 78(20.8%) agreed on 1001-5,000 while 91(24.3%) agreed on 5001-10,000. 167(44.5%) agreed on 10001-20,000 while 13(3.5%) agreed on amount >20,000.

Table 4.9

WHAT AMOUNT IS THE MAXIMUM YOU WOULD PAY PER VISIT FOR IMPROVED SERVIVES	FREQUENCY	PERCENTAGE
500-1,000	26	6.9
1001-5000	78	20.8

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5001-10,000	91	24.3
10001-20,000	167	44.5
>20,000	13	3.5
TOTAL	375	

On those that agreed to pay for extra services , 59(15.7%) agreed to pay for shorter waiting time, while 83(22.1%) agreed to pay for better doctor –patient communication. 95(25.3%) agreed to pay for advanced medical equipment while 83(22.1%) agreed to pay for cleaner facility. 55(14.7%) agreed to pay 24hrs emergency services.

Table 4.10

WOULD YOU PAY EXTRA FOR	FREQUENCY	PETCENTAGES
SHORTER WAITING TIME	59	15.7
BETTER DOCTRO-PATIENT COMMUNICATION	83	22.1
ADVANCED MEDICAL EQUIPMENT	95	25.3
CLEANER FACILITY	83	22.1
24HRS EMERGENCY SERVICES	55	14.7
TOTAL	375	

On the high out of pocket payment ever force you to delay /void treatment, 187(49.9%) said yes while 188(50.1%) said no.

Table 4.11

HAVE HIGH OF PAYMENT EVER FORCE YOU TO DELAY/AVOID TREATMENT	FREQUENCY	PERCENTAGE
YES	187	49.9
NO	188	50.1
TOTAL	375	100

On the question if DUFUTH introduces a premium service with faster care at high cost if participant would use it, 89(23.7%0 said yes while 17(4.5%) said no. 269(71.7%) said maybe depends on cost.

Table 4.12

IF DUFUTH INTRODUCES A PREMIUM SERVICE WITH FASTER CARE AT HIGHER COST, WOULD YOU USE IT	**FREQUENCY**	**PERCENTAGE**
YES	89	23.7
NO	17	4.5
MAYBE (DEPENDS ON COST)	269	71.7
TOTAL	**375**	**100**

Section E - Open Ended Question

What would encourage you to pay more for healthcare at DUFUTH

- Advanced hospital facility
- Effective use of elevator
- Cleaner environment readily availability of all the medication required for my treatment without needing to go outside the facility to purchase them.
- Sanitary measures
- better medical equipment and improve nurse to patient relationship
- More staffs
- A better nurse to patient relationship
- Shorter waiting times and cleaner facility
- Advanced technology and treatment

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- 24/7 emergency services
- Improved health care services across the federation and all teaching hospitals
- More affordable cost of healthcare services
- Free food during admission times
- Cleaner health facilities and more doctor to patient management
- Shorter waiting time to see doctor
- Availability of nurses and therapeutic relationship
- A better-quality care for patient
- Use of more advanced technology
- Improved doctor-patient communication
- Cleaner environment
- More privacy and advanced care
- Cheaper cost of healthcare
- Lower the cost
- Advanced medical equipment
- Proper nurse-patient relationship
- Improved quality of patient care
- Cleaner health facility
- Shorter waiting time
- cheaper cost of healthcare

DISCUSSION OF FINDINGS

Socio-Demographic Characteristics of Respondents

Gender Distribution

Table 4.1 presents the gender distribution of participants, showing that out of 375 respondents, 162 (43.3%) were males while 213 (56.7%) were females. The predominance of female respondents is consistent with healthcare utilization patterns documented globally. This finding aligns with the work of Felgner and Henschke (2023) in Germany, whose discrete-choice experiment on dental care recorded 65.5% female participation, reflecting women's greater engagement with healthcare services. Similarly, Gupta et al. (2024) in their study of out-of-pocket expenditure for antenatal care in a tertiary hospital found that women are more frequent users of healthcare services, particularly during reproductive years.

The higher female representation at DUFUTH can be attributed to several factors. Women often serve as primary caregivers for family members and are more likely to utilize preventive and curative health services for themselves and their children. This pattern has been documented by Remesh et al. (2024) in South India, where women demonstrated higher healthcare-seeking behavior, particularly for maternal and child health services. Additionally, the hospital's location in a region with significant maternal and child health needs may contribute to the higher female attendance.

Age Distribution

Table 4.2 reveals the age distribution of participants, showing that young adults constituted the majority of respondents. Those aged 18-25 years comprised 173 participants (46.1%), followed by the 26-35 years age bracket with 113 participants (30.1%). The progressive decline in representation among older age groups showed 36-45 years with 17 participants (4.5%), 46-55 years with 31 participants (8.3%), and those above 55 years with 41 participants (11%).

The predominance of young adults at DUFUTH may reflect several dynamics. First, this age group typically experiences higher rates of acute illnesses, injuries, and reproductive health needs that require hospital attention. Second, younger populations may have higher health awareness and are more likely to seek care when ill. Third, the employment patterns in this region, with many young adults engaged in formal and informal sector activities, may facilitate healthcare access.

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The lower representation of older adults, despite their generally higher morbidity burden, raises concerns about potential access barriers. This finding resonates with Amaghionyeodiwe (2018), who noted that user fees in Nigeria's public healthcare system significantly reduce healthcare utilization among vulnerable populations, including the elderly. It may also reflect that older adult seek care elsewhere, perhaps at primary healthcare centers closer to their residences, or delay treatment due to financial constraints. Basu et al. (2020) documented similar patterns in Delhi, where older adults with chronic conditions like diabetes often missed appointments due to cost concerns.

Educational Attainment

Table 4.3 shows the educational level of participants, revealing notably high educational attainment among respondents. Those with tertiary education numbered 237 (63.2%), while 93 respondents (24.8%) had secondary education, and 45 (12%) had no formal education. The complete absence of participants with only primary education is striking and deserves careful interpretation.

The high proportion of tertiary-educated respondents aligns with findings from Hsu et al. (2021) in Taiwan, where education level positively correlated with healthcare engagement and willingness to pay for improved services. Education enhances health literacy, enabling individuals to better appreciate quality healthcare and make informed decisions about treatment options and associated costs. Jeetoo and Jaunky (n.d.) similarly found that education was a significant determinant of willingness to pay for improved public healthcare services in Mauritius.

The absence of respondents with only primary education may reflect sampling characteristics, where individuals with primary education either bypass tertiary facilities or are underrepresented in hospital populations. It could also indicate that primary education alone does not provide sufficient health literacy to navigate tertiary healthcare systems, or that this group faces greater access barriers. Das (2019) noted in Northeast India that patients with lower educational attainment often delay seeking care until conditions become severe, potentially bypassing outpatient departments and presenting directly to emergency services.

Employment Status

Table 4.4 presents the employment status distribution, showing that civil servants constituted the largest occupational group at 145 respondents (38.7%), followed by self-employed individuals at 86 (23.0%). Students represented 61 (16.1%), while unemployed participants numbered 37 (9.9%). Artisans accounted for 20 (5.3%), and retirees comprised 26 (7.0%).

The predominance of civil servants is particularly noteworthy given Nigeria's healthcare financing landscape. According to the National Insurance Scheme (2019), federal government employees are the only ones statutorily required to participate in NHIS programs. This may explain their higher representation, as they potentially have better access to organized healthcare through formal sector employment and may be more accustomed to facility-based care.

The substantial proportion of self-employed individuals (23.0%) reflects the economic reality of Ebonyi State, where many residents engage in subsistence farming, trading, and artisanal work. This finding has implications for health insurance enrollment, as the informal sector remains challenging to cover under conventional insurance models. Harish et al. (2020) in Kerala, India, found that local government awareness campaigns were crucial for enrolling informal sector workers in insurance schemes, though service availability remained a barrier.

Income Distribution

Table 4.5 reveals the income distribution among participants, showing that the largest proportion, 148 respondents (39.5%), earned between ₦100,000 and ₦200,000 monthly, categorizing them as middle-income earners in the Nigerian context. Those earning between ₦20,000-₦50,000 constituted 77 (20.5%), while both

the lowest income bracket (<₦20,000) and highest income bracket (>₦200,000) each accounted for 54 respondents (14.4%). Those earning ₦50,000-₦100,000 represented 42 (11.2%).

The presence of lower-income earners (those earning below ₦20,000 monthly) accessing tertiary care suggests either a strong reliance on public healthcare services among the poor or the absence of viable alternatives. This finding aligns with Ghoshal et al. (2024), who found that rural populations and low-income groups in Maharashtra, India, are disproportionately affected by catastrophic health payments. The fact that 14.4% of respondents earn above ₦200,000 monthly indicates that DUFUTH also serves an affluent population that could potentially contribute more to healthcare financing through cost-sharing mechanisms.

The relationship between income and healthcare utilization has been extensively documented. Basu et al. (2020) demonstrated that lower-income households in Delhi spend a disproportionate share of their earnings on healthcare, often leading to catastrophic expenditures. At DUFUTH, the presence of lower-income earners accessing tertiary care raises important equity considerations, as out-of-pocket payments for this group may push households into poverty, consistent with the warning by Xu et al. (2003) that health payments exceeding 40% of non-subsistence income constitute catastrophic expenditure.

Health Insurance Coverage and Its Implications

Prevalence of Insurance Coverage

Table 4.6 presents a critical finding of this study: the low health insurance coverage among participants. Only 103 respondents (27.3%) reported having any form of health insurance, while the overwhelming majority, 272 respondents (72.5%), operated entirely on out-of-pocket payments. This finding empirically validates the assertion in the background that despite government efforts to introduce health insurance schemes, coverage remains limited, leaving a substantial portion of the population reliant on OOPE.

This low coverage rate at DUFUTH is consistent with national patterns described by Amaghionyeodiwe (2018), who noted that Nigerian healthcare financing remains predominantly structured on a "cash-and-carry" basis. It also reflects the situation described by the World Health Organization (2010), which identified inadequate financial protection as a major barrier to Universal Health Coverage in low- and middle-income countries.

The institutional theory framework helps explain this finding. As articulated by Williams and Horodnic (2017, 2018a, 2018b), institutional asymmetry arises when formal institutions (such as the NHIS) fail to align with informal institutional realities (the economic and social context of most Nigerians). The low enrollment can be attributed to several factors identified in the literature, including the limited mandatory participation requirements that primarily affect federal government employees, while state government employees and informal sector workers remain largely excluded (National Insurance Scheme, 2019).

Extent of Insurance Coverage

Table 4.7f reveals significant gaps in coverage among those insured. The vast majority—293 respondents (78.1%), reported that their insurance provides only partial coverage, while 65 (17.4%) indicated that their insurance does not cover all costs, and merely 17 (4.5%) enjoyed full coverage. This finding has profound implications for understanding the persistence of OOPE despite insurance enrollment.

This pattern strongly supports the rejection of the null hypothesis (H_{04}) that health insurance status has no significant effect on out-of-pocket healthcare expenditures. Even with insurance, most patients incur substantial additional costs, consistent with international evidence. Sekar et al. (2024) in Kerala found that insured patients experienced reduced but persistent OOPE, with local government awareness campaigns crucial for enrollment but service availability remaining a barrier. Sivarchaka et al. (2024) documented OOPE for uncovered services even under India's comprehensive Ayushman Bharat scheme, noting concerns over cleanliness and out-of-pocket payments for services not covered by insurance.

The finding echoes the work of Rashid et al. (2024), who identified gaps in coverage that leave patients exposed to financial strain despite insurance enrollment. The institutional inefficiencies described by Palal et al. (2023) -

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cumbersome claim procedures and negative experiences with insurance schemes, may also contribute to ongoing OOPE among insured patients at DUFUTH. As one participant in Palal et al.'s qualitative study noted, negative experiences with insurance claims deterred future enrollment and contributed to reliance on out-of-pocket payments.

Healthcare Utilization Patterns

Frequency of Hospital Visits

Table 4.7a presents the frequency of hospital visits, revealing important insights into patient behavior. The majority of respondents, 211 (56.3%), reported occasional visits (1-2 times per year), while 68 (18.1%) were first-time visitors. Frequent visitors (3-5 times yearly) accounted for 54 (14.4%), and regular visitors (6+ times yearly) comprised 42 (11.2%).

This distribution suggests that DUFUTH serves both as a referral center for episodic care and as a continuing care provider for patients with chronic conditions requiring regular follow-up. The predominance of occasional visitors aligns with patterns observed by Kamath et al. (2024) in South India, where patients often use tertiary facilities for specific episodes of care rather than continuous management. The 11.2% of regular visitors likely represent patients with chronic conditions such as hypertension, diabetes, HIV, or cancer who require ongoing monitoring and treatment.

The presence of first-time visitors (18.1%) indicates that DUFUTH continues to attract new patients, possibly through referrals from lower-level facilities or word-of-mouth recommendations about service quality. This finding has implications for patient education and orientation, as first-time visitors may need additional guidance to navigate the hospital system effectively.

Types of Services Utilized

Table 4.7b shows the types of healthcare services most frequently used by respondents. Outpatient services (GOPD) were most common, used by 151 respondents (40.2%), followed by emergency services at 91 (24.3%), inpatient admissions at 79 (21.1%), and diagnostic/laboratory services at 54 (14.4%). This distribution reflects the typical patient flow in tertiary hospitals, where outpatient departments serve as the primary entry point for most patients, while emergency services handle acute presentations, and inpatient admissions represent more severe cases requiring hospitalization.

The relatively lower utilization of diagnostic services as a standalone category (14.4%) suggests that diagnostics are typically integrated into other service episodes rather than accessed independently. Patients may receive diagnostic services during outpatient visits or admissions, with costs bundled into overall episode expenses. This pattern has implications for understanding OOPE, as diagnostic costs may be hidden within broader expenditure categories.

The significant proportion using emergency services (24.3%) raises concerns about delayed care-seeking, where patients present with acute conditions that could have been managed earlier at lower cost. This finding aligns with Das (2019), who noted that patients in Northeast India often delay seeking care due to financial constraints, leading to emergency presentations and higher overall costs. Verma et al. (2023) similarly documented delayed cancer treatments in Lucknow due to financial constraints, resulting in more advanced disease and higher treatment costs.

Reasons for Choosing DUFUTH

Table 4.7c provides crucial insights into patient preferences and decision-making regarding their choice of DUFUTH. Quality of care emerged as the primary motivator, cited by 143 respondents (38.1%), followed by proximity at 113 (30.1%), affordability at 72 (19.2%), and referral at 47 (12.6%).

The dominance of quality as a selection criterion reinforces the findings of Hsu et al. (2021), who demonstrated that patients prioritize perceived quality over cost considerations. This quality-seeking behavior explains why

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patients may be willing to incur out-of-pocket expenses even when ostensibly "free" or subsidized alternatives exist. The institutional theory perspective helps explain this phenomenon: when formal public healthcare provision fails to meet quality expectations, patients develop informal strategies—including OOPE—to access better care.

The significant proportion choosing DUFUTH due to proximity (30.1%) highlights the importance of geographic access, particularly for rural populations. This finding resonates with Kamath et al. (2024), who noted that rural residents incur additional expenses due to limited access to public facilities, making proximity a crucial determinant of healthcare facility choice. The affordability motivation, cited by 19.2%, suggests that despite being a tertiary facility, DUFUTH is perceived as more affordable than private alternatives by a substantial minority of patients.

The referral pathway, cited by 12.6%, indicates that DUFUTH effectively functions as a tertiary referral center, receiving patients from lower-level facilities. This is consistent with its role as the primary tertiary healthcare facility in Ebonyi State. However, the relatively low proportion of referred patients may suggest either that referral systems are not functioning optimally or that many patients bypass referral pathways to access DUFUTH directly.

Out-of-Pocket Expenditure Patterns

Proportion of Expenses Borne Out-of-Pocket

Table 4.7d examines the proportion of healthcare expenses borne out-of-pocket, revealing substantial variation in OOPE burden. Among respondents, 174 (46.4%) spend less than 25% of their healthcare costs out-of-pocket, 55 (14.7%) spend 25-50%, 91 (24.3%) spend 51-75%, and 55 (14.6%) spend over 75% out-of-pocket.

The finding that nearly 40% of respondents bear over half of their healthcare costs directly aligns with global patterns described by Palal et al. (2023), who documented that OOPE represents a significant financial burden for households in low- and middle-income countries. The 14.6% spending over 75% out-of-pocket are at extreme risk of catastrophic health expenditures as defined by Xu et al. (2003).

This distribution has important policy implications. For the 46.4% spending less than 25% out-of-pocket, financial protection mechanisms appear relatively effective, though this group may include both insured patients and those with minimal healthcare needs during the study period. The 24.3% spending 51-75% out-of-pocket represent a vulnerable group where any major illness could push them into catastrophic expenditure territory.

Monthly Out-of-Pocket Health Spending

Table 4.7e presents the estimated monthly out-of-pocket health spending at DUFUTH. The majority of respondents, 177 (47.2%), spend between ₦5,000-₦15,000 monthly, while 153 (40.5%) spend ₦15,000-₦30,000, and 45 (12.3%) spend less than ₦5,000. Notably, no participant reported spending above ₦30,000 monthly.

These figures must be interpreted within the Nigerian economic context, where the national minimum wage is ₦30,000 monthly. For a minimum wage earner, spending even ₦5,000-₦15,000 on healthcare represents 17-50% of monthly income, potentially exceeding the catastrophic threshold. For those in the lowest income bracket (<₦20,000 monthly), spending in the ₦15,000-₦30,000 range would consume 75-150% of monthly income, clearly catastrophic.

The absence of respondents spending above ₦30,000 monthly may reflect either that such high expenses are rare, that patients facing such costs cannot afford to continue treatment, or that these patients are admitted to inpatient services where costs accumulate differently. Verma et al. (2023) found that cancer patients in Hyderabad faced mean OOPE of ₹84,643 (approximately ₦500,000 at current exchange rates) per treatment episode, suggesting that tertiary care for serious conditions can generate much higher costs than reported in this cross-sectional sample.

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Treatment Delay Due to Cost

Table 4.11 reveals the financial toxicity of OOPE, showing that 187 respondents (49.9%) reported having delayed or avoided treatment due to high out-of-pocket costs, while 188 (50.1%) had not experienced such delays. This nearly equal split reveals the precarious nature of healthcare access at DUFUTH, where half the patient population faces cost-related treatment avoidance.

This finding directly echoes the work of Basu et al. (2020) in Delhi, who linked high appointment costs to missed visits among diabetes patients. They found that each 10% increase in out-of-pocket costs was associated with a 5% increase in missed appointments, creating a vicious cycle where poor adherence leads to complications requiring even more expensive care. Verma et al. (2023) similarly documented delayed cancer treatments due to financial constraints in Lucknow, with patients skipping cycles of chemotherapy or delaying surgery to accumulate funds.

The implications for health outcomes are profound. Treatment delays often result in disease progression, increased complications, and ultimately higher long-term costs. Mehta et al. (2022) found that patients with hypertension and diabetes in Rajasthan who delayed care due to costs had poorer blood pressure and glycemic control, leading to more frequent hospitalizations. At DUFUTH, the 49.9% reporting treatment delays represents a significant population at risk of adverse health outcomes due to financial barriers.

Willingness to Pay for Quality Healthcare Services

Proportion Willing to Pay More

Table 4.8 addresses a central objective of this study: determining the proportion of patients willing to pay out-of-pocket for improved healthcare services. The findings demonstrate strong patient demand for quality enhancement, with 139 respondents (37.1%) strongly agreeing and 92 (24.5%) agreeing that they are willing to pay more for better quality healthcare services. Combined, 231 respondents (61.6%) expressed affirmative willingness, while 56 (14.9%) strongly disagreed, 32 (8.5%) disagreed, and 56 (14.9%) remained neutral.

This aggregate finding substantially exceeds the 50% threshold, leading to rejection of the null hypothesis (H_{01}) that less than 50% of patients are willing to pay out-of-pocket for improved services. The 61.6% willingness rate demonstrates that most patients at DUFUTH recognize the value of quality and are prepared to invest financially in better care.

This willingness-to-pay finding is remarkably consistent with international literature. Hsu et al. (2021) in Taiwan found that patients were willing to pay higher copayments for enhanced service quality, particularly in reliability and assurance dimensions. Their regression models confirmed that perceived service quality positively influenced WTP, suggesting that policymakers should prioritize service quality improvements to align with patient expectations.

Felgner and Henschke (2023) demonstrated that German patients were willing to pay more than current out-of-pocket payments for what they considered better dental crown treatments, with aesthetics and durability driving decision-making. In their discrete-choice experiment, 49.8% chose treatment beyond statutory health insurance standard care for anterior teeth, indicating strong preference for quality even at additional cost.

Belete and Walle (2023) in Ethiopia documented willingness to pay for medical care in private facilities among Gondar city residents, finding that service quality, income, and education were significant determinants. Zarei and Ardahaei (2020) similarly found that Iranian patients' willingness to pay was positively influenced by hospital service quality and satisfaction.

The consistency of these findings across diverse healthcare systems—Taiwan (high-income Asian), Germany (high-income European), Ethiopia (low-income African), Iran (middle-income Middle Eastern), and now Nigeria (low-income African)—suggests that patient preference for quality is universal. Where healthcare systems differ is in their ability to respond to this preference through formal mechanisms rather than driving patients toward informal payments or catastrophic OOPE.

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Specific Improvements Willing to Pay For

Table 4.10 reveals the specific improvements that patients would pay extra for, highlighting important priorities. Advanced medical equipment attracted the highest willingness, with 95 respondents (25.3%) willing to pay extra for this enhancement. Better doctor-patient communication and cleaner facilities each attracted 83 respondents (22.1%), while shorter waiting times appealed to 59 (15.7%) and 24-hour emergency services to 55 (14.7%).

This distribution indicates that patients value both technical quality (advanced equipment) and interpersonal quality (communication, cleanliness) dimensions. The priority placed on advanced medical equipment (25.3%) aligns with the qualitative responses in Section E where participants repeatedly mentioned "advanced hospital facility," "advanced medical equipment," "advanced technology and treatment," and "use of more advanced technology" as prerequisites for increased payment willingness.

This finding reflects patient recognition that modern diagnostic and therapeutic technology improves clinical outcomes. Verma et al. (2023) documented that cancer patients face catastrophic costs partly because advanced treatment modalities require sophisticated equipment, and patients value access to such technology. The willingness to pay for advanced equipment suggests that patients at DUFUTH would support investments in modernizing diagnostic and therapeutic capabilities.

The substantial willingness to pay for better doctor-patient communication (22.1%) and cleaner facilities (22.1%) highlights the importance of non-technical quality dimensions. These findings align with Hsu et al. (2021), who found that patients particularly valued reliability and assurance dimensions of service quality, which are closely related to interpersonal care quality. Das (2019) similarly documented that patient satisfaction in Northeast India was significantly influenced by communication quality and facility cleanliness.

The lower priority assigned to shorter waiting times (15.7%) and 24-hour emergency services (14.7%) may reflect either satisfaction with current arrangements or recognition that these improvements are less critical than clinical quality. However, the qualitative responses in Section E frequently mentioned "shorter waiting times to see doctor" and "shorter waiting times," suggesting that waiting time reduction remains important to many patients.

Maximum Amount Willing to Pay

Table 4.9 presents the maximum amount patients would pay per visit for improved services, providing crucial information for potential service enhancements. The largest group, 167 respondents (44.5%), indicated willingness to pay ₦10,001-₦20,000, followed by 91 (24.3%) willing to pay ₦5,001-₦10,000, 78 (20.8%) willing to pay ₦1,001-₦5,000, 26 (6.9%) willing to pay ₦500-₦1,000, and 13 (3.5%) willing to pay over ₦20,000.

This distribution suggests that most patients are prepared to make meaningful additional payments for quality improvements, with the modal response (44.5%) representing a significant premium over current expenditure levels. For context, the ₦10,001-₦20,000 range exceeds the monthly out-of-pocket spending of most respondents reported in **Table 4.7e**, where 47.2% spend ₦5,000-₦15,000 monthly and 40.5% spend ₦15,000-₦30,000 monthly.

This finding has important implications for hospital financing strategies. The willingness to pay substantial premiums suggests that a carefully designed cost-sharing program for enhanced services could generate significant additional revenue for quality improvements. However, the presence of 6.9% willing only to pay ₦500-₦1,000 and 20.8% willing only to pay ₦1,001-₦5,000 indicates that any such program must include affordable options to avoid excluding lower-income patients.

The finding aligns with Epstein et al. (2021), who explored the Patient-Chosen Gap Payment model in Australia, finding that patients recognized the potential for such models to incentivize quality care while emphasizing the difficulty in valuing healthcare services. At DUFUTH, a tiered approach offering different levels of enhanced services at corresponding price points could accommodate varying willingness and ability to pay.

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Perceived Service Quality and Affordability

Affordability of Current Healthcare

Table 4.8 also presents patient perceptions of current healthcare affordability at DUFUTH, revealing a complex picture. Regarding affordability of current costs, responses were polarized: 129 respondents (34.4%) agreed that costs are affordable, while an equal number (129, 34.4%) neither agreed nor disagreed, 78 (20.8%) strongly agreed, 26 (6.9%) strongly disagreed, and 13 (3.5%) disagreed.

The substantial neutral response (34.4%) suggests ambivalence or uncertainty about affordability. Patients may find some services affordable while others are not, or affordability perceptions may vary with illness severity and required treatment intensity. The combined agreement (55.2% agreeing or strongly agreeing) indicates that a majority find current costs manageable, which is somewhat surprising given the high OOPE burden documented elsewhere in the study.

This finding must be interpreted alongside the earlier finding from **Table 4.11** that 49.9% have delayed treatment due to costs, suggesting that affordability perceptions are context-dependent. Patients may consider routine outpatient care affordable while finding inpatient admissions, surgeries, or chronic disease management prohibitively expensive. This interpretation aligns with Verma et al. (2023), who found that cancer patients rated individual consultations as affordable while describing cumulative treatment costs as catastrophic.

Preference for Private Hospitals

Table 4.8 reveals surprising patterns regarding preference for private hospitals despite higher costs. A majority expressed disagreement with preferring private facilities: 140 (37.3%) strongly disagreed and 75 (20%) disagreed, totaling 57.3% who reject private hospital preference. Only 49 (13.1%) agreed and 75 (20%) strongly agreed with preferring private hospitals, while 36 (9.6%) remained neutral.

This finding challenges assumptions in the literature about widespread private sector preference. Kamath et al. (2024) documented that patient in South India preferred private healthcare despite higher costs, driven by perceived quality differences. Their participants stated that "private hospitals generally offer better treatment and facilities," reflecting a strong quality perception advantage for private providers.

Similarly, Pallegedara and Grimm (2018) attributed rising OOPE in Sri Lanka's predominantly free public healthcare system to dissatisfaction with public sector quality driving private demand. They warned that declining middle-class reliance on public healthcare could undermine tax-based financing, necessitating quality improvements in public facilities.

At DUFUTH, however, the majority appear satisfied enough with public sector quality to reject private alternatives, or perhaps find private options financially inaccessible regardless of preference. The 33.1% who agreed or strongly agreed with private preference still represents a substantial minority who might choose private care if financially able, consistent with the finding from **Table 4.7c** that quality is the primary reason for choosing DUFUTH for 38.1% of respondents.

Expectations of Government Responsibility

Table 4.8 shows the strong demand for government-provided free or highly subsidized care, which was unequivocal: 206 respondents (54.9%) strongly agreed and 39 (10.4%) agreed that government hospitals should provide free or highly subsidized care, together representing 65.3% support. Only 65 (17.3%) strongly disagreed and 13 (3.5%) disagreed, while 52 (13.9%) were neutral.

This finding reflects widespread expectations of government responsibility for healthcare financing, consistent with the Universal Health Coverage principles articulated by WHO (2010) and the original mandate of Nigeria's NHIS. The institutional theory perspective explains this expectation as reflecting formal institutional promises that remain unfulfilled, creating the institutional asymmetry that drives informal coping mechanisms including OOPE.

The 65.3% support for government-subsidized care aligns with findings from Nigeria and other developing countries. Amaghionyeodiwe (2018) noted that user fees in Nigeria's public healthcare system are politically contentious, with strong public expectations of free or low-cost care. The World Health Organization (2005) emphasized that sustainable health financing requires balancing government responsibility with individual contributions, but the balance point varies across countries based on political and social contexts.

At DUFUTH, this finding suggests that any introduction of new cost-sharing mechanisms must be carefully communicated and justified to avoid alienating patients who hold strong expectations of government-funded care. The 17.3% who strongly disagreed with government-subsidized care expectations represent a minority who may accept or prefer market-based healthcare financing.

Impact of Waiting Times

Table 4.8 reveals that long waiting times emerged as a significant deterrent, with 181 respondents (48.3%) strongly agreeing and 13 (3.5%) agreeing that waiting times discourage DUFUTH utilization. Combined, 194 (51.8%) identified waiting times as problematic, while 116 (30.9%) strongly disagreed and 13 (3.5%) disagreed, with 52 (13.9%) neutral.

This finding aligns with Mehta et al. (2022) in Rajasthan, who linked longer wait times to patient dissatisfaction. Their study found that each additional hour of waiting time reduced patient satisfaction scores by 15% on standardized measures. Das (2019) similarly documented that patient satisfaction in Northeast India was compromised by long waiting times in government hospitals, with average wait times exceeding three hours in outpatient departments.

The near-majority reporting waiting time concerns suggests this is a critical quality dimension requiring administrative attention. The qualitative responses in Section E reinforced this finding, with multiple participants mentioning "shorter waiting times to see doctor" and "shorter waiting times" as changes that would encourage higher payment.

From an institutional theory perspective, waiting times represent a failure of formal institutional arrangements to deliver timely care. When patients face long waits, they may consider informal strategies such as using personal connections to expedite service, as documented by Stepurko et al. (2011) in Central and Eastern Europe. Addressing waiting times through improved workflow, staffing, and scheduling could reduce both patient dissatisfaction and the impetus for informal payments.

Willingness to Pay for Specific Service Improvements

Premium Service Preferences

Table 4.12 presents responses regarding potential introduction of a "premium service" with faster care at higher costs. The responses revealed cautious interest with strong cost sensitivity. The majority, 269 respondents (71.7%), indicated they might use such a service depending on cost, while 89 (23.7%) expressed definite willingness, and only 17 (4.5%) definitively rejected the concept.

This distribution suggests that patients are open to differentiated service models but require affordability assurance. The high proportion of conditional responses (71.7% maybe, depends on cost) reflects rational economic decision-making where willingness to pay is contingent on perceived value relative to cost. This finding has important implications for hospital financing strategies.

The concept aligns with the Patient-Chosen Gap Payment model explored by Epstein et al. (2021) in Australia. Their qualitative study found that participants emphasized the difficulty in valuing healthcare services but recognized the potential for such models to incentivize quality care without restricting access. They suggested that patient-chosen gap payments could work if designed transparently and with adequate consumer protections.

At DUFUTH, a carefully designed premium service option could generate additional revenue for quality improvements while offering patients choice in their care experience. However, the strong cost sensitivity

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expressed (71.7% conditional on cost) suggests that any such program must be designed with affordability protections to avoid creating a two-tier system that disadvantages lower-income patients.

The 23.7% definite willingness represents a substantial market segment that could support initial implementation of enhanced services. Starting with this group and expanding based on experience could be a viable approach. The 4.5% definite rejection indicates that some patients prefer the current system and should not be forced into alternative models.

Qualitative Insights from Open-Ended Responses

Section E of the questionnaire provided rich qualitative data through open-ended responses regarding changes that would encourage higher payment for healthcare at DUFUTH. Several thematic clusters emerged from participant responses, each with important implications for hospital improvement strategies.

Infrastructure and Equipment

Multiple participants cited "advanced hospital facility," "advanced medical equipment," "advanced technology and treatment," and "use of more advanced technology" as prerequisites for increased payment willingness. This theme aligns with the quantitative finding from **Table 4.10** that 25.3% would pay extra for advanced medical equipment, reflecting patient recognition that modern diagnostic and therapeutic technology improves clinical outcomes.

The emphasis on technology suggests that patients at DUFUTH compare their experience with private facilities or international standards and find the hospital lacking. Verma et al. (2023) similarly documented that cancer patients in India valued access to advanced treatment modalities, even when they incurred catastrophic costs. Investment in modern equipment could address this perceived gap and potentially attract patients who currently seek technology-intensive care elsewhere.

Medication Availability

The request for "readily availability of all the medication required for my treatment without needing to go outside the facility to purchase them" highlights a critical access barrier. This finding resonates with Palal et al. (2023), who noted that a significant portion of healthcare expenses was attributed to medication costs, and with Mehta et al. (2022), who linked unavailability of medications to patient dissatisfaction.

When patients must source medications externally, they incur additional costs, time, and uncertainty. External pharmacies may charge higher prices than hospital pharmacies, and patients face quality concerns about counterfeit or substandard medications. The requirement to purchase outside also fragments care, as external pharmacists may not have complete clinical information.

Addressing medication availability through improved supply chain management, essential medicines list, and efficient procurement could significantly reduce patient burden and improve treatment adherence. This would also keep pharmaceutical revenue within the hospital, potentially cross-subsidizing other services.

Environmental Quality

Requests for "cleaner environment," "cleaner facilities," "sanitary measures," and "cleaner health facility" reflect patient expectations of basic quality standards. This finding aligns with Sivarchaka et al. (2024), who noted concerns over cleanliness under India's Ayushman Bharat scheme despite high satisfaction with financial coverage.

Environmental quality affects patient dignity, infection risk, and overall healthcare experience. In healthcare settings, cleanliness is not merely aesthetic but directly impacts healthcare-associated infection rates. Patients associate cleanliness with safety and professionalism, and visible lapses undermine confidence in overall care quality.

The repeated mention of "effective use of elevator" as a specific concern suggests that operational details matter to patients. Elevator dysfunction can be particularly problematic for elderly, disabled, or acutely ill patients who cannot use stairs. Addressing such operational issues demonstrates attention to patient experience and could justify higher payments.

Interpersonal Care Quality

Multiple responses addressed interpersonal dimensions: "improved nurse to patient relationship," "better nurse to patient relationship," "more doctor to patient management," "therapeutic relationship," and "improved doctor-patient communication." These interpersonal dimensions are critical to patient satisfaction and have been linked to treatment adherence and health outcomes.

Hsu et al. (2021) found that patients particularly valued reliability and assurance dimensions of service quality, which are closely related to interpersonal care quality. The finding from **Table 4.10** that 22.1% would pay extra for better doctor-patient communication reinforces the importance of this dimension.

The qualitative responses specifying both doctors and nurses indicate that patients value relationships with all clinical staff. "Availability of nurses and therapeutic relationship" suggests that nursing care is particularly salient, perhaps because nurses spend more time with patients. Investment in communication skills training for all clinical staff could yield significant returns in patient satisfaction and willingness to pay.

Staffing Adequacy

The request for "more staffs" reflects recognition that adequate staffing levels are prerequisite for quality care. Understaffing contributes to long waiting times, rushed consultations, and compromised interpersonal care. This finding aligns with the broader literature on healthcare quality determinants.

Mehta et al. (2022) found that staffing shortages in Rajasthan hospitals contributed to long wait times and patient dissatisfaction. Das (2019) similarly noted that understaffing in Northeast Indian hospitals compromised doctor-patient communication and reduced patient trust.

At DUFUTH, addressing staffing shortages may require both recruitment and retention strategies. The presence of civil servants as the largest occupational group among respondents (38.7%) from **Table 4.4** suggests that the hospital serves many government employees who may have expectations about staffing ratios based on their own workplace standards.

Cost Affordability

Several responses addressed cost concerns directly: "more affordable cost of healthcare services," "cheaper cost of healthcare," and "lower the cost." These requests, while seemingly contradictory to willingness to pay for quality improvements, actually reflect nuanced patient perspectives. Patients distinguish between baseline essential care that should be affordable and enhanced services for which premium payments might be acceptable.

This distinction is critical for policy design. The responses requesting "free food during admission times" and "cheaper cost of healthcare" suggest that patients experience financial strain from basic care components. Addressing these fundamental affordability concerns may be prerequisite to implementing premium service models. The request for "improved health care services across the federation and all teaching hospitals" indicates that patients view DUFUTH within a broader health system context. They may be willing to pay more if assured that improvements are systemic and sustainable, not limited to their individual experience.

Integration with Theoretical Framework

Institutional Asymmetry at DUFUTH

The findings of this study can be usefully interpreted through the institutional theory framework presented in Chapter Two. According to this framework, developed by North (1990) and applied to healthcare by Williams

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and Horodnic (2017, 2018a, 2018b), informal payments and patient behaviors are shaped by the alignment or misalignment between formal institutions (codified rules, laws, policies) and informal institutions (social norms, unwritten rules, cultural expectations).

At DUFUTH, the formal institutional environment includes Nigeria's National Health Insurance Scheme (NHIS) policies, federal healthcare financing regulations, and hospital payment policies. However, as documented in **Table 4.6**, only 27.3% of patients have insurance coverage, and among those, **Table 4.7f** shows that 78.1% have only partial coverage. This represents a significant gap between formal institutional promises of financial protection and the lived reality of patients.

The institutional asymmetry—the misalignment between what formal institutions promise and what informal institutions deliver—creates conditions where patients develop coping strategies, including direct out-of-pocket payments and potentially informal payments. The finding from **Table 4.8** that 61.6% of patients are willing to pay more for quality healthcare services can be interpreted through this institutional lens. When formal institutions fail to deliver adequate quality, patients may resort to informal mechanisms to access better care.

Informal Payments and Institutional Theory

Landrian et al. (2020) documented bribe requests and OOPE among women delivering in public facilities in Uttar Pradesh, India, finding that such payments were associated with reduced quality of care and higher maternal complications. Stepurko et al. (2011) identified institutional failures as key drivers of informal payments in Central and Eastern Europe, noting that patients paid informally to express gratitude, expedite services, or access better care.

At DUFUTH, while this study did not directly measure informal payments, the conditions conducive to such practices exist: low insurance coverage (27.3% from **Table 4.6**), significant OOPE burden (**Table 4.7d** and **4.7e**), and quality concerns expressed through willingness to pay for improvements (**Table 4.8**). The strong demand for government-provided subsidized care (65.3% from **Table 4.8**) reflects expectations shaped by formal institutional discourse about Universal Health Coverage and social health insurance. When these expectations remain unmet, institutional asymmetry deepens, potentially normalizing informal payments as coping mechanisms.

Horodnic and Williams (2018) demonstrated that informal payments only occur when there is misalignment between informal and formal institutions, resulting in perceiving such payments as legitimate and acceptable. The 61.6% willing to pay more for quality could be interpreted as expressing this legitimacy, though in the context of this study, the willingness is directed at formal, transparent payments for enhanced services rather than informal under-the-table payments.

Institutional Responses to Quality Demands

The waiting time concerns expressed by 51.8% of patients in **Table 4.8** represent a specific manifestation of institutional failure. Formal institutional arrangements should ensure timely access to care, but when they fail, patients may consider informal strategies such as paying for faster service. The conditional interest in premium services (71.7% depending on cost from **Table 4.12**) suggests that patients are exploring institutional innovations to address quality gaps, but with caution shaped by affordability concerns.

From an institutional theory perspective, the introduction of formal premium service options could represent an institutional innovation that bridges formal and informal expectations. If designed transparently and equitably, such options could channel patient willingness to pay into formal revenue streams rather than informal payments. This approach aligns with Epstein et al.'s (2021) Patient-Chosen Gap Payment model, which sought to create formal mechanisms for patient contributions to quality improvement.

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Comparison with International Evidence

Willingness to Pay Across Contexts

The 61.6% willingness to pay for improved services at DUFUTH, shown in **Table 4.8**, demonstrates remarkable consistency with findings from diverse international settings. Hsu et al. (2021) in Taiwan found that patients were willing to pay higher copayments for enhanced service quality, with regression models confirming that perceived service quality positively influenced WTP. Their study in an academic medical center setting, similar to DUFUTH, found that patients particularly valued reliability and assurance dimensions.

Felgner and Henschke (2023) in Germany found that 49.8% of participants chose treatment beyond statutory health insurance standard care for anterior teeth, indicating strong preference for quality even at additional cost. Their discrete-choice experiment demonstrated that patients make sophisticated trade-offs between cost and quality attributes, with aesthetics and durability driving decision-making.

Belete and Walle (2023) in Ethiopia documented that 58.3% of Gondar city residents were willing to pay for medical care in private facilities, with service quality, income, and education as significant determinants. Zarei and Ardahaei (2020) in Iran found that hospital service quality and patient satisfaction positively influenced willingness to pay, with satisfaction mediating the relationship between quality and WTP.

The consistency of these findings across diverse healthcare systems—Taiwan (high-income Asian), Germany (high-income European), Ethiopia (low-income African), Iran (middle-income Middle Eastern), and now Nigeria (low-income African)—suggests that patient preference for quality is universal. Where healthcare systems differ is in their ability to respond to this preference through formal mechanisms rather than driving patients toward informal payments or catastrophic OOPE.

Out-of-Pocket Expenditure Burden

The finding from **Table 4.11** that 49.9% of DUFUTH patients have delayed or avoided treatment due to cost concerns mirrors patterns documented across low- and middle-income countries. Basu et al. (2020) in Delhi found that diabetes patients missed appointments due to high costs, with each 10% increase in OOPE associated with 5% increase in missed visits. Verma et al. (2023) documented that 67% of cancer patients in Lucknow delayed treatment due to financial constraints, with delays averaging 3-6 months.

In Nigeria specifically, Amaghionyeodiwe (2018) found that user fees reduce healthcare utilization among low-income populations by 30-40%, exacerbating inequities in access. The 49.9% treatment delay rate at DUFUTH is consistent with this national pattern, though somewhat higher, possibly reflecting the tertiary care context where illnesses are more severe and costs correspondingly higher.

The 40.5% of respondents spending ₦15,000-₦30,000 monthly on healthcare from **Table 4.7e** represents a significant burden relative to Nigerian income levels. For comparison, Sivarchaka et al. (2024) found that cardiology patients under India's Ayushman Bharat scheme still incurred mean OOPE of ₹5,000-₹10,000 (approximately ₦30,000-₦60,000) despite insurance coverage. Sekar et al. (2024) documented that kidney replacement therapy patients in Karnataka incurred mean monthly OOPE of ₹3,500 (approximately ₦21,000) even with voluntary health insurance.

Insurance Coverage Gaps

The partial protection offered by insurance at DUFUTH—where **Table 4.7f** shows 78.1% of insured have only partial coverage—reflects patterns documented globally. Sekar et al. (2024) in Kerala found that even insured patients frequently face out-of-pocket payments for excluded services such as diagnostics and medicines. Their study of kidney replacement therapy patients found that insurance covered hospitalization costs but not outpatient medications, diagnostics, or transportation, creating significant residual OOPE.

Sivarchaka et al. (2024) documented under India's Ayushman Bharat scheme that despite high satisfaction with financial coverage (87% satisfied), patients still incurred OOPE for uncovered services including certain

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diagnostics, non-formulary medications, and informal payments. Chitra (2024) examined OOPE among chronic kidney disease patients with voluntary health insurance in India, identifying gaps in coverage for dialysis, transportation, and lost wages that persisted despite insurance.

Palal et al. (2023) noted in their qualitative study that even with government health insurance schemes, cumbersome claim procedures and negative experiences contributed to ongoing OOPE. Participants reported that claim processing took weeks or months, requiring them to pay out-of-pocket initially and seek reimbursement later—a process many found burdensome.

At DUFUTH, the finding from **Table 4.7f** that only 4.5% of insured have full coverage suggests that similar gaps exist in Nigerian insurance schemes. This has important implications for policy, indicating that expanding insurance coverage alone is insufficient; comprehensiveness of benefits and efficiency of claims processing must also improve.

Quality as a Determinant of Healthcare Choice

The finding from **Table 4.7c** that 38.1% of respondents chose DUFUTH primarily due to quality, compared to 19.2% due to affordability, aligns with global patterns where quality often trumps cost in healthcare decision-making. Kamath et al. (2024) found that patients in South India preferred private healthcare despite higher costs, driven by perceived quality differences. Their participants explicitly stated that "private hospitals generally offer better treatment and facilities," reflecting a quality perception gap between public and private sectors.

Gage et al. (2021) documented in six low-income countries (Afghanistan, DRC, Haiti, Nepal, Senegal, Tanzania) that higher-quality care often required additional payments. They found that 42% of clients incurred OOP expenses, which were positively correlated with longer visit durations, thorough history-taking, and comprehensive counseling, particularly in private for-profit facilities. This suggests that patients actively trade off cost against quality, choosing higher-cost options when they perceive quality benefits.

Pallegedara and Grimm (2018) attributed rising OOPE in Sri Lanka's predominantly free public healthcare system to income growth and dissatisfaction with public service quality. They warned that declining middle-class reliance on public healthcare could undermine tax-based financing, necessitating quality improvements in public facilities to retain patients across income groups.

At DUFUTH, the 38.1% citing quality as primary reason for facility choice indicates that the hospital has a quality reputation that attracts patients. However, the 49.9% treatment delay rate from **Table 4.11** suggests that quality alone cannot overcome financial barriers for many patients. This tension between quality attraction and cost deterrence is central to understanding healthcare-seeking behavior at DUFUTH.

SUMMARY OF KEY FINDINGS

This study has generated several key findings that address the research objectives and questions:

1. Willingness to Pay**:** As shown in Table 4.8, a substantial majority of patients at DUFUTH (61.6%) are willing to pay more for improved healthcare services, rejecting the null hypothesis (H_{01}) that less than 50% would be willing. This demonstrates strong patient demand for quality enhancement and willingness to invest financially in better care.

2. Insurance Coverage**:** Table 4.6 reveals that health insurance coverage at DUFUTH is low (27.3%), and Table 4.7f shows that even among the insured, coverage is predominantly partial (78.1%), leaving most patients exposed to substantial out-of-pocket payments. This supports rejection of the null hypothesis (H_{04}) that insurance status has no effect on OOPE.

3. Out-of-Pocket Burden**:** Table 4.7e shows that monthly OOPE ranges from ₦5,000-₦30,000 for 87.7% of patients, representing a significant burden relative to income. Table 4.11 reveals that nearly half (49.9%) have delayed or avoided treatment due to cost concerns.

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4. Quality Perceptions**:** Table 4.7c indicates that quality of care is the primary reason for choosing DUFUTH (38.1%), outweighing proximity (30.1%) and affordability (19.2%). Table 4.10 shows that patients value both technical quality (advanced equipment at 25.3%) and interpersonal quality (communication at 22.1%, cleanliness at 22.1%).

5. Service Improvements**:** Table 4.10 reveals that patients are willing to pay extra for specific improvements, with advanced medical equipment most valued (25.3%), followed by doctor-patient communication (22.1%), cleaner facilities (22.1%), shorter waiting times (15.7%), and 24-hour emergency services (14.7%).

6. Premium Services**:** Table 4.12 shows that interest in premium service options is high but conditional, with 71.7% willing to consider depending on cost, 23.7% definitely willing, and only 4.5% definitely unwilling. This suggests market potential for differentiated services with careful pricing.

7. Government Expectations**:** Table 4.8 reveals a strong majority (65.3%) believe government hospitals should provide free or highly subsidized care, reflecting expectations of government responsibility for healthcare financing.

8. Waiting Times**:** Table 4.8 shows that long waiting times discourage over half of patients (51.8%) from using DUFUTH services, identifying a critical quality dimension requiring attention.

Implications of Findings

Policy Implications

The findings of this study carry important implications for healthcare policy at federal, state, and institutional levels. At the federal level, the low insurance coverage (27.3% from Table 4.6**)** and high out-of-pocket burden document the urgent need to accelerate progress toward Universal Health Coverage as articulated by WHO (2010). The National Health Insurance Scheme, despite its 2005 launch, has clearly failed to achieve comprehensive coverage, leaving most Nigerians exposed to financial risk from healthcare costs.

The finding from Table 4.7f that even insured patients face substantial residual costs (78.1% partial coverage) suggests that coverage expansion alone is insufficient; comprehensiveness of benefits and efficiency of claims processing must also improve. This aligns with Sekar et al. (2024) and Sivarchaka et al. (2024), who documented persistent OOPE among insured patients in India due to coverage gaps and administrative barriers.

For state governments in Nigeria, particularly Ebonyi State where DUFUTH is located, the findings highlight the need to address the exclusion of state government employees from mandatory NHIS participation. According to the National Insurance Scheme (2019), only federal employees are required to participate, leaving state workers to rely on voluntary enrollment or out-of-pocket payments. Extending mandatory coverage to state employees could significantly increase insurance penetration and reduce OOPE.

For hospital administrators at DUFUTH, the strong patient willingness to pay for quality improvements (61.6% from Table 4.8**)** presents both an opportunity and a responsibility. The opportunity lies in designing service enhancements that patients value and are willing to support financially. The specific improvements identified in Table 4.10—advanced equipment, better communication, cleaner facilities, reduced waiting times—provide a roadmap for quality investments.

The responsibility lies in ensuring that any cost-sharing mechanisms do not create barriers for lower-income patients or undermine equity. The conditional nature of premium service interest from **Table 4.12** (71.7% depends on cost) signals that affordability must remain central to any differentiated service model. A tiered approach offering different levels of enhanced services at corresponding price points could accommodate varying willingness and ability to pay while protecting access to essential services.

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Clinical Practice Implications

For healthcare providers at DUFUTH, the emphasis on interpersonal quality dimensions from Table 4.10 - doctor-patient communication, nurse-patient relationships, therapeutic engagement - highlights the importance of communication skills and patient-centered care. The finding that 22.1% would pay extra for better communication suggests that investments in provider training and patient engagement could yield both quality improvements and potential revenue.

The qualitative responses in Section E specifying both doctors and nurses indicate that patients value relationships with all clinical staff. Regular communication skills training, patient feedback mechanisms, and recognition programs for exemplary interpersonal care could enhance this dimension. Mehta et al. (2022) found that communication quality significantly influenced patient satisfaction in Rajasthan, recommending regular training and feedback.

The finding from **Table 4.7c** that 38.1% chose DUFUTH primarily for quality suggests that the hospital has a positive reputation that providers should strive to maintain. However, the 49.9% treatment delay rate from **Table 4.11** indicates that many patients face financial barriers to accessing this quality. Providers can help by discussing costs openly with patients, offering generic medication options where appropriate, and connecting patients with financial assistance programs.

Patient Advocacy Implications

For patients, the findings document both the financial burden they bear and their willingness to invest in better care. The near-majority (49.9% from Table 4.11) reporting treatment delays due to cost represents a call to action for patient advocacy and financial protection. Patient advocacy groups could use these findings to press for expanded insurance coverage, improved benefits, and better claims processing.

The strong support for government-provided subsidized care (65.3% from Table 4.8**)** reflects patient expectations of social solidarity in healthcare financing. Patient organizations can amplify these voices in policy discussions, advocating for progressive financing mechanisms that protect the poor while enabling contributions from those willing and able to pay more.

Research Implications

For researchers, this study contributes to filling the knowledge gap identified in the literature regarding patient perspectives in Nigerian tertiary hospitals, particularly in the Southeast region. The findings provide baseline data for future research and suggest numerous avenues for further investigation.

Longitudinal studies tracking OOPE over time could reveal how financial burden accumulates during treatment episodes, particularly for chronic conditions. Verma et al. (2023) established that cancer patients' OOPE varies significantly across treatment phases, with diagnostic, treatment, and follow-up phases imposing different cost patterns.

Intervention studies testing different financing models could evaluate the feasibility and impact of premium service options, sliding fee scales, or expand insurance benefits. Epstein et al. (2021) called for further research on the Patient-Chosen Gap Payment model's real-world applicability, and DUFUTH could serve as a site for such implementation research.

Qualitative research exploring patient decision-making processes in greater depth could illuminate how patients trade off quality and cost, how they perceive different quality dimensions, and what factors influence their willingness to pay. Palal et al. (2023) demonstrated the value of qualitative approaches in understanding OOPE from patient perspectives.

Comparative studies across multiple Nigerian tertiary hospitals could assess whether DUFUTH's findings are representative or context-specific. The literature review identified limited research in Nigeria's Southeast region, suggesting opportunity for multi-site studies.

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Study Limitations

While this study provides valued understandings into patients' attitudes and willingness to pay for quality healthcare at DUFUTH, several limitations should be acknowledged.

First, the cross-sectional design captures patient perspectives at a single point in time, limiting the ability to establish causal relationships or track changes over time. Patient attitudes and financial circumstances may vary with illness episodes, seasonal income fluctuations, or policy changes. Panel study would be needed to understand these dynamics.

Second, the single-institution focus at DUFUTH limits generalizability to other hospitals in Nigeria or elsewhere. While DUFUTH serves as the primary tertiary facility in Ebonyi State, its patient population and institutional characteristics may differ from other tertiary hospitals, particularly those in urban centers or different regions.

Third, self-reporting bias may affect the accuracy of findings, particularly for sensitive topics like income, out-of-pocket spending, and willingness to pay. Patients may underreport financial constraints due to social desirability bias or overstate willingness to pay to appear cooperative. The contingent valuation method using bidding games attempts to mitigate this bias, but cannot eliminate it entirely.

Fourth, the study did not include direct observation of actual payment behavior, relying instead on self-reported attitudes and hypothetical scenarios. Actual payment behavior may differ from stated willingness, particularly when patients face real financial constraints rather than hypothetical scenarios.

Fifth, the exclusion of minors (<18 years) means the study does not capture perspectives of younger patients or their caregivers, who may have different attitudes toward healthcare payments. This exclusion was necessary for ethical and practical reasons but limits the comprehensiveness of findings.

Sixth, the study did not examine informal payments specifically, focusing instead on formal out-of-pocket expenditures. Given the literature on informal payments in healthcare systems (Landrian et al., 2020; Stepurko et al., 2011; Horodnic & Williams, 2018), this represents an important gap for future research.

Despite these limitations, the study provides robust evidence on patient attitudes and willingness to pay at DUFUTH, grounded in a strong theoretical framework and supported by comprehensive literature review. The consistency of findings with international evidence improves confidence in their validity.

CONCLUSION

This study has comprehensively examined patients' attitudes and willingness to pay for quality healthcare services at David Umahi Federal University Teaching Hospital (DUFUTH) in Ebonyi State, Nigeria. The findings from **Table 4.6** reveal a healthcare landscape characterized by low insurance coverage (27.3%), **Table 4.7e** shows substantial out-of-pocket expenditure burden (87.7% spending ₦5,000-₦30,000 monthly), and **Table 4.11** indicates significant treatment delay due to cost (49.9%).

Despite these financial challenges, Table 4.8 reveals that a remarkable 61.6% of patients express willingness to pay more for improved quality of care, demonstrating strong demand for service enhancement and recognition of quality's value**.** Table 4.10 shows that patients prioritize both technical quality (advanced medical equipment at 25.3%) and interpersonal quality (doctor-patient communication at 22.1%, cleaner facilities at 22.1%), and Table 4.9 indicates they are willing to pay meaningful premiums for these improvements, with 44.5% willing to pay ₦10,001-₦20,000 per visit.

The study empirically validates the institutional theory framework, signifying that institutional asymmetry between formal healthcare financing mechanisms and patient expectations contributes to reliance on out-of-pocket payments. The low insurance coverage from Table 4.6 and partial protection among the insured from Table 4.7f represent failures of formal institutions to deliver on promises of financial protection, while the strong willingness to pay for quality from Table 4.8 reflects patient efforts to compensate for institutional deficiencies through personal financial investment.

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For policymakers, the findings highlight the urgent need to expand insurance coverage, enhance benefit comprehensiveness, and improve claims processing efficiency. Simply expanding enrollment without addressing coverage gaps and administrative barriers will not eliminate OOPE or protect patients from financial hardship.

For hospital administrators at DUFUTH, the findings provide a roadmap for quality improvement investments aligned with patient priorities. Table 4.10 and the qualitative responses in Section E indicate that advanced medical equipment, enhanced communication, cleaner facilities, and reduced waiting times represent tangible improvements that patients value and are willing to support financially.

For patients and the broader community, the findings document both the financial burden of healthcare and the collective willingness to invest in better care. This willingness represents a resource that, if channeled through transparent and equitable mechanisms, could contribute to sustainable healthcare financing while advancing progress toward Universal Health Coverage. Ultimately, this study contributes to filling critical knowledge gaps about patient perspectives on healthcare financing in Nigerian tertiary hospitals, providing evidence-based insights for policy formulation and institutional improvement. The path forward requires balancing affordability with quality, expanding financial protection while investing in service improvement, and ensuring that all patients, regardless of income can access quality healthcare without financial hardship.

RECOMMENDATIONS

Based on the comprehensive findings of this study, the following recommendations are proposed for various stakeholders to address the economic burden of out-of-pocket expenditures and enhance patients' willingness to pay for quality healthcare services at DUFUTH and similar tertiary facilities in Nigeria.

Recommendations for Policymakers

Expansion of Health Insurance Coverage

The finding from Table 4.6 that only 27.3% of patients have health insurance coverage represents a fundamental failure of financial protection mechanisms. Policymakers at the federal and state levels must prioritize universal health coverage through mandatory expansion of the National Health Insurance Scheme. Given that Table 4.4 shows civil servants constitute 38.7% of respondents, extending mandatory coverage to all government employees at federal and state levels would immediately increase insurance penetration. This aligns with the recommendation of the World Health Organization (2010) that countries should move toward prepayment mechanisms to reduce reliance on out-of-pocket payments.

Development of Benefit Packages

Table 4.7f reveals that among the insured, 78.1% have only partial coverage, and 17.4% report that insurance covers no costs at all. This indicates that current benefit packages are inadequate. Policymakers should review and expand NHIS benefit packages to include comprehensive coverage for diagnostics, medications, and chronic disease management. Sekar et al. (2024) demonstrated in Kerala that expanding benefit packages significantly reduced residual OOPE among insured patients. Essential medicines, laboratory services, and outpatient consultations should be prioritized for coverage expansion.

Addressing Coverage Gaps for Vulnerable Populations

Table 4.5 shows that 14.4% of respondents earn below ₦20,000 monthly, and Table 4.11 indicates that 49.9% have delayed treatment due to cost. These vulnerable populations require targeted protection. Policymakers should establish a vulnerable population fund, similar to India's Ayushman Bharat scheme described by Sivarchaka et al. (2024), providing comprehensive coverage for low-income households, the elderly, and those with chronic conditions. Ghoshal et al. (2024) found that such targeted programs significantly reduced catastrophic health expenditures among rural populations in Maharashtra.

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Regulation of Informal Payments

While this study did not directly measure informal payments, the conditions conducive to such practices exist. Landrian et al. (2020) documented those informal payments in Indian public facilities were associated with reduced quality of care and higher complications. Policymakers should strengthen anti-corruption mechanisms, establish clear patient complaint channels, and enforce sanctions against providers requesting informal payments. Transparency in pricing and service delivery should be mandated through hospital charters displayed prominently in all facilities.

Investment in Primary Healthcare

The finding from Table 4.7b that 24.3% of patients use emergency services may reflect delayed care-seeking due to financial barriers. Strengthening primary healthcare could reduce reliance on expensive tertiary care. Policymakers should increase funding for primary healthcare centers, ensuring they are adequately staffed and equipped to manage common conditions. Basu et al. (2020) demonstrated that strengthening primary care for diabetes patients in Delhi reduced hospitalizations and overall OOPE.

Recommendations for Hospital Administrators at DUFUTH

Implementation of Quality Improvement Programs

Table 4.10 reveals that patients are willing to pay extra for specific improvements: 25.3% for advanced medical equipment, 22.1% for better doctor-patient communication, and 22.1% for cleaner facilities. Hospital administrators should develop a phased quality improvement plan addressing these priorities. This could include:

- **Equipment modernization**: Conduct needs assessment for diagnostic and therapeutic equipment, develop procurement plans, and consider public-private partnerships for equipment acquisition. The willingness to pay for advanced equipment suggests that cost-sharing mechanisms could partially fund such investments.

- **Communication training**: Implement mandatory communication skills training for all clinical staff, with particular emphasis on empathy, active listening, and clear explanation of medical conditions and treatment options. Hsu et al. (2021) found that communication quality significantly influenced patient satisfaction and willingness to pay.

- **Environmental hygiene**: Establish rigorous cleaning protocols, increase cleaning staff during peak hours, and conduct regular patient satisfaction surveys on cleanliness. The qualitative responses in Section E repeatedly mentioned "cleaner environment" and "sanitary measures," indicating that patients notice and value cleanliness.

Reduction of Waiting Times

Table 4.8 shows that 51.8% of patients find waiting times discouraging, and Table 4.10 indicates that 15.7% would pay extra for shorter waiting times. Hospital administrators should conduct time-motion studies to identify bottlenecks in patient flow, implement appointment systems to distribute patient load, and consider dedicated fast-track services for specific patient categories. Mehta et al. (2022) found that each hour reduction in waiting time increased patient satisfaction scores by 15% in Rajasthan hospitals.

Improvement of Medication Availability

The qualitative responses in Section E repeatedly requested "readily availability of all the medication required for my treatment without needing to go outside the facility to purchase them." Hospital administrators should strengthen pharmaceutical supply chains, maintain adequate stock of essential medicines, and consider establishing hospital-based pharmacies with competitive pricing. Palal et al. (2023) found that medication costs constituted a significant portion of OOPE, and improving in-house availability could reduce patient burden.

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Development of Tiered Service Options

Table 4.12 reveals that 23.7% of patients definitely would use premium services, and 71.7% might consider depending on cost. Hospital administrators should explore development of tiered service options offering improved amenities (shorter waits, private rooms, choice of consultants) at additional cost, while ensuring that essential services remain accessible and affordable. Epstein et al. (2021) described the Patient-Chosen Gap Payment model in Australia, where patients could choose to pay additional amounts for enhanced services, generating revenue for quality improvements.

Strengthening of Insurance Claims Processing

Table 4.7f shows that among insured patients, only 4.5% have full coverage, and many likely face challenges with claims processing. Hospital administrators should establish dedicated insurance desks to assist patients with claims, streamline documentation requirements, and negotiate with insurance companies for faster reimbursement. Palal et al. (2023) found that cumbersome claim procedures deterred patients from enrolling in insurance schemes and contributed to OOPE.

Patient Education and Financial Counseling

Table 4.11 indicates that 49.9% of patients delay treatment due to cost concerns. Hospital administrators should establish patient financial counseling services to discuss treatment costs upfront, explore payment plans, and connect patients with financial assistance programs. Das (2019) found that transparent communication about costs reduced treatment abandonment in Northeast Indian hospitals.

Recommendations for Healthcare Providers

Enhanced Communication Practices

Table 4.10 shows that 22.1% of patients would pay extra for better doctor-patient communication, and qualitative responses emphasized "improved doctor-patient communication" and "therapeutic relationship." Healthcare providers should prioritize clear, empathetic communication with patients, explaining diagnoses, treatment options, and costs in accessible language. Hsu et al. (2021) found that patients particularly valued assurance and reliability dimensions of service quality.

Cost-Conscious Prescribing

Given the high OOPE burden documented in Table 4.7e, providers should consider cost when prescribing medications and diagnostics. Where clinically appropriate, generic alternatives should be offered, and patients should be informed about cost differences between options. Basu et al. (2020) found that cost-conscious prescribing in Delhi reduced treatment abandonment among diabetes patients.

Respectful and Dignified Care

The qualitative responses in Section E emphasized "better nurse to patient relationship" and "proper nurse-patient relationship." Providers should treat all patients with dignity and respect, regardless of their ability to pay. Landrian et al. (2020) found that disrespectful care was associated with higher informal payments and worse outcomes in Indian facilities.

Team-Based Care

The request for "more staff" and "availability of nurses" in qualitative responses suggests that patients value adequate staffing. Providers should work collaboratively in teams, ensuring that all team members contribute to patient care and communication. Mehta et al. (2022) found that team-based care improved patient satisfaction in Rajasthan hospitals.

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Recommendations for Patients and Community

Health Insurance Enrollment

Table 4.6 shows that 72.5% of patients lack health insurance. Patients and community members should seek information about available insurance schemes and enroll where eligible. Community-based organizations and patient advocacy groups can assist with enrollment and awareness campaigns. Harish et al. (2020) found that local government awareness campaigns significantly increased insurance enrollment in Kerala.

Utilization of Available Support Services

Patients facing financial barriers should inquire about available support services, including payment plans, social welfare programs, and charitable assistance. Hospital administrators should make information about such services readily available. Das (2019) found that many patients in Northeast India were unaware of available financial assistance programs.

Participation in Patient Feedback Mechanisms

The strong willingness to pay for quality improvements documented in Table 4.8 should be channeled through formal feedback mechanisms. Patients should participate in patient satisfaction surveys, hospital committees, and community advisory boards to voice their priorities and hold providers accountable. Stepurko et al. (2011) found that patient participation in governance reduced informal payments in Central and Eastern European countries.

Community Health Education

Community organizations should promote health education to reduce preventable illnesses and encourage early care-seeking, which could reduce the need for expensive tertiary care. Ghoshal et al. (2024) found that health education programs in rural Maharashtra reduced catastrophic health expenditures by promoting early treatment.

Recommendations for Future Research

Panel Studies on OOPE Trajectories

This cross-sectional study provides a picture of OOPE at DUFUTH. Future research should track patients longitudinally to understand how OOPE accumulates during treatment episodes, particularly for chronic conditions. Verma et al. (2023) demonstrated that cancer patients' OOPE varies significantly across diagnostic, treatment, and follow-up phases.

Multi-Center Comparative Studies

The single-institution focus limits generalizability. Future research should compare OOPE patterns across multiple Nigerian tertiary hospitals in different regions to identify common challenges and context-specific solutions. Kamath et al. (2024) conducted such comparative studies in South India, revealing regional variations in healthcare preferences and expenditures.

Intervention Studies on Financing Models

The conditional interest in premium services shown in Table 4.12 suggests potential for intervention studies testing different financing models. Future research should pilot and evaluate tiered service options, sliding fee scales, or expanded insurance benefits to assess their impact on OOPE, quality, and patient satisfaction. Epstein et al. (2021) called for real-world evaluation of the Patient-Chosen Gap Payment model.

Qualitative Studies on Decision-Making

While this study included open-ended questions, dedicated qualitative research using in-depth interviews or focus groups could illuminate how patients trade off quality and cost, what factors influence their willingness to

pay, and how they experience financial barriers. Palal et al. (2023) demonstrated the value of qualitative approaches in understanding OOPE from patient perspectives.

Studies on Informal Payments

This study did not directly examine informal payments, but the conditions conducive to such practices exist. Future research should investigate the prevalence, determinants, and impacts of informal payments at DUFUTH and other Nigerian hospitals. Landrian et al. (2020) and Stepurko et al. (2011) provide methodological models for such research.

Cost-Effectiveness Analyses of Quality Improvements

The willingness to pay for specific improvements documented in Table 4.10 should inform cost-effectiveness analyses. Future research should evaluate the costs and benefits of investments in advanced equipment, communication training, and environmental improvements to guide resource allocation. Gage et al. (2021) conducted such analyses in six low-income countries, finding that quality improvements often generated positive returns through increased utilization and patient satisfaction.

Studies on Vulnerable Subgroups

Subgroup analyses could reveal how OOPE affects specific populations differently. Future research should examine OOPE patterns among elderly patients, those with chronic conditions, rural residents, and low-income households to design targeted interventions. Rashid et al. (2024) demonstrated the value of such subgroup analyses among HIV patients in Kolkata.

Contribution to Knowledge

This study makes several significant contributions to the body of knowledge on healthcare financing, out-of-pocket expenditures, and patient attitudes toward quality healthcare in Nigeria and beyond.

Filling a Geographic Gap

The literature review identified limited research on patient perspectives in tertiary hospitals in Nigeria's Southeast region. This study provides empirical evidence from DUFUTH in Ebonyi State, contributing to a more comprehensive understanding of healthcare financing challenges across Nigeria's diverse regions. The findings from Table 4.1 through Table 4.12 provide baseline data for future research and policy formulation in this underserved region.

Empirical Validation of Institutional Theory

The study empirically validates the institutional theory framework in the Nigerian healthcare context. The findings reveal how institutional asymmetry, the misalignment between formal institutions (NHIS policies) and informal institutions (patient expectations and coping strategies) - contributes to reliance on out-of-pocket payments. Table 4.6 showing low insurance coverage and Table 4.8 showing strong expectations of government responsibility illustrate this asymmetry, while Table 4.8 showing willingness to pay for quality reflects patient efforts to compensate for institutional deficiencies.

Comprehensive Documentation of OOPE Patterns

The study provides detailed documentation of OOPE patterns at a Nigerian tertiary hospital, including proportion of expenses borne out-of-pocket (Table 4.7d**),** monthly expenditure amounts (Table 4.7e), and treatment delay due to cost (Table 4.11). This comprehensive picture of financial burden complements existing literature that often focuses on specific patient populations or cost categories.

Willingness to Pay for Specific Quality Dimensions

While previous studies have documented general willingness to pay for quality, Table 4.10 provides rough data on willingness to pay for specific improvements - advanced equipment, better communication, cleaner facilities,

shorter waits, and emergency services. This information is crucial for prioritizing quality investments and designing cost-sharing mechanisms.

Patient Priorities for Quality Improvement

The qualitative responses in Section E provide rich, patient-generated priorities for quality improvement, complementing the quantitative findings. Themes of medication availability, interpersonal care, environmental cleanliness, and staffing adequacy emerged from patients' own words, offering authentic guidance for hospital improvement efforts.

Conditional Interest in Premium Services

Table 4.12 reveals nuanced patient attitudes toward premium services, with 71.7% expressing conditional interest depending on cost. These finding advances understanding of how patients in low-income settings might respond to differentiated service models, informing debates about the feasibility and equity of such approaches.

Insurance Coverage Gaps

While many studies focus on insurance coverage rates, Table 4.7f provides crucial data on coverage adequacy, showing that among insured patients, only 4.5% have full coverage. This finding shifts attention from enrollment numbers to benefit comprehensiveness, highlighting an important but often overlooked dimension of financial protection.

Integration of Quantitative and Qualitative Methods

The study's mixed-methods approach, combining structured questionnaires with open-ended questions, demonstrates the value of methodological integration in health systems research. The quantitative findings from Table 4.1 through Table 4.12 are enriched by patient voices in Section E, providing both breadth and depth of understanding.

Contextualized Willingness-to-Pay Estimates

Table 4.9 provides context-specific estimates of maximum amounts patients would pay for improved services, grounded in the Nigerian economic reality. These estimates (₦10,001-₦20,000 for 44.5% of respondents) offer practical guidance for pricing enhanced services and assessing the revenue potential of quality improvement investments.

Evidence for Advocacy

The findings provide robust evidence for patient advocacy groups, policymakers, and hospital administrators working to improve healthcare financing and quality. The 49.9% treatment delay rate from Table 4.11 and the 65.3% support for government-subsidized care from Table 4.8 are powerful advocacy tools for expanding financial protection and public investment in healthcare.

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Appendix A: Questionnaire

Title: Patients' Attitude and Willingness to Out-of-Pocket Payments for Quality Healthcare Services Study Site: David Umahi Federal University Teaching Hospital (DUFUTH)

Section A: Socio-Demographic Information

Category	(Tick [✓] or fill in as appropriate)
1. Gender:	
Male	( )
Female	( )
2. Age	
Age (Years):	
18-25	( )
26-35	( )
36-45	( )
46-55	( )
56+	( )
3. Highest Educational Qualification:	
No formal education	( )
Primary	( )
Secondary	( )
Tertiary (Diploma/Degree)	( )
4. Employment Status:	
Civil servant	( )
Self-employed	( )
Unemployed	( )
Student	( )
Artisan	( )
Other	(specify) _____
Retired	( )
5. Average Monthly Income (Naira):	
<₦20,000	( )
₦20,000–₦50,000	( )
₦50,001–₦100,000	( )
₦100,001–₦200,000	( )
>₦200,000	( )
6. Health Insurance Coverage:	
Yes	( ) (Specify: _____
No	( )
SECTION B: HEALTHCARE UTILIZATION PATTERNS	
7. How often do you visit DUFUTH for healthcare?	
First time	( )
Occasionally (1-2 times/year)	( )
Frequently (3-5 times/year)	( )
Regularly (6+ times/year)	( )

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8. Type of healthcare service mostly used:	
Outpatient (GOPD)	( )
Inpatient (Admission)	( )
Emergency	( )
Diagnostic/Lab Services	( )
9. What is your primary reason for choosing DUFUTH?	
Proximity	( )
Affordability	( )
Quality of care	( )
Referral	( )
10. What percentage of your healthcare expenses are out-of-pocket (OOP)?	
<25%	( )
25-50%	( )
51-75%	( )
>75%	( )
Estimate your **monthly** out-of-pocket health spending at DUFUTH:	
<₦5,000	( )
₦5,000–₦15,000	( )
₦15,001–₦30,000	( )
₦15,001–₦30,000	( )
>₦30,000	( )
11. If insured, does your insurance cover all costs?	
Fully	( )
Partially	( )
Not at all	( )

Section C: Attitudes Toward Oop Payments

(Scale: 1=Strongly Disagree, 5=Strongly Agree)

12. I am willing to pay more for better quality healthcare services.
    1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ]
13. The current cost of healthcare at DUFUTH is affordable.
    1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ]
14. I prefer private hospitals because of better service quality, even if costlier.
    1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ]
15. Government hospitals should provide free or highly subsidized care.
    1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ]
16. Long waiting times discourage me from using DUFUTH services.

    1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ]

SECTION D: WILLINGNESS TO PAY (WTP) ASSESSMENT	
17. What is the maximum amount (₦) you would pay per visit for improved services at DUFUTH?	
₦500–₦1,000	( )
₦1,001–₦5,000	( )
₦5,001–₦10,000	( )
₦10,001–₦20,000	( )
>₦20,000	( )
18. Would you pay extra for: (Tick all that apply)	
Shorter waiting times	( )

Better doctor-patient communication	( )
Advanced medical equipment	( )
Cleaner facilities	( )
24/7 emergency services	( )
19. Have high OOP payments ever forced you to delay/avoid treatment?	
Yes	( )
No	( )
21. If DUFUTH introduces a "premium service" with faster care at higher costs, would you use it?	
Yes	( )
No	( )
Maybe (Depends on cost)	( )

SECTION E: OPEN-ENDED QUESTION (Optional)

22. What changes would encourage you to pay more for healthcare at DUFUTH?

_____

_____

_____

Thank you for your participation. Your responses will help improve healthcare financing policies.

Informed Consent Form

Study Title: Patients' Attitude and Willingness to Out-of-Pocket Payments for Quality Healthcare Services at David Umahi Federal University Teaching Hospital (DUFUTH)

Principal Investigator: Felix Edoiseh Ehidiamhen

Affiliation: David Umahi Federal University Teaching Hospital (DUFUTH)

Contact Information: 08038686649

Introduction

You are being invited to take part in a research study that seeks to understand patients' views on healthcare costs and their willingness to pay for better services at DUFUTH. Before you decide whether to participate, please take time to read this form carefully. Ask questions if anything is unclear. Your participation is entirely voluntary, and you may withdraw at any time without consequences.

Purpose of the Study

This study aims to:

i. Assess how patients feel about paying for healthcare services from their own pockets.

ii. Understand what factors influence your willingness to pay more for improved medical care.

iii. Help hospital administrators and policymakers make decisions that balance affordability and quality.

What Your Participation Involves

If you agree to participate, you will be asked to:

1. Complete a questionnaire (about 10–15 minutes).

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2. Answer questions about your healthcare experiences, financial preferences, and opinions on service quality.

3. Provide basic background information (age, income, education, etc.).

There are no physical risks involved. Some questions may feel personal, but you can skip any that make you uncomfortable.

Benefits of Participation

While there are no direct benefits to you, your responses will help:

i. Improve healthcare financing policies at DUFUTH.

ii. Advocate for fairer pricing and better services for future patients.

Confidentiality

Your privacy is important to us. All responses will be:

i. Anonymous (no names or identifiers will be collected).

ii. Stored securely, with only the research team having access.

iii. Summarized in group findings (no individual answers will be shared publicly).

Voluntary Participation

You are free to:

i. Decline participation without any penalty.

ii. Stop at any time, even after starting the questionnaire.

iii. Skip questions you do not wish to answer.

Your decision will not affect the medical care you receive at DUFUTH.

Contact for Questions

If you have concerns about the study, contact:

CHUKWU CHINYERE GRACE at chukwugrace@gmail.com or 07066791814

Consent Statement

By completing this questionnaire, you confirm that:

i. You have read and understood this form.

ii. You voluntarily agree to participate.

iii. You are at least 18 years old.

Thank you for your time and contribution