



## **ANALYSIS OF CLIENTS' SATISFACTION WITH THE NATIONAL HEALTH INSURANCE SCHEME (NHIS) AMONG STAFF AT THE FEDERAL TEACHING HOSPITAL KATSINA**

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**ABSTRACT**

*This research investigates clients' satisfaction with the National Health Insurance Scheme (NHIS) among staff at the Federal Teaching Hospital Katsina. The study aims to assess satisfaction levels, identify factors influencing satisfaction, and measure clients' understanding of NHIS operations and their financial contributions. Using a cross-sectional survey design, data were collected from 291 respondents through structured questionnaires. In an effort to come up with some inferential results, Chi-square and logistic regression analyses were employed. The findings indicate that a majority of NHIS clients are not satisfied with the scheme, with significant relationships identified between satisfaction and factors such as occupational level, educational level, marital status, general knowledge of NHIS, and knowledge of financial contributions. The study concludes with recommendations to improve client satisfaction and awareness.*

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### **1.0 Introduction**

Healthcare financing is a crucial aspect of ensuring equitable access to health services. In many developing countries, high out-of-pocket payments create barriers to accessing healthcare, particularly for low-income populations. The National Health Insurance Scheme (NHIS) in Nigeria was established in 2005 to mitigate these barriers by providing affordable healthcare through a prepaid insurance system. The NHIS aims to enhance the availability, accessibility, and quality of healthcare services, thereby improving health outcomes for all Nigerians, especially the poor and vulnerable. The National Health Insurance Scheme (NHIS) was established to improve access to healthcare and ensure financial protection for healthcare services in Nigeria (Adewole et al., 2015). Despite its objectives, there have

been concerns about the satisfaction of enrollees with the scheme's services (Aregbeshola & Khan, 2018). Despite the potential benefits of the NHIS, its implementation has faced numerous challenges, including limited coverage, inadequate funding, poor infrastructure, and low levels of awareness among enrollees. These challenges have raised concerns about the overall effectiveness and efficiency of the scheme in achieving its objectives.

This study assesses clients' satisfaction with NHIS at Federal Teaching Hospital Katsina, investigates the factors influencing satisfaction, and evaluates clients' understanding of NHIS operations and their financial contributions. Understanding these factors is crucial for improving the

effectiveness of NHIS and ensuring better healthcare outcomes for enrollees.

The general public in Nigeria nowadays places a high value on currency rates and their constant movements since, in one way or another, these factors affect the economy's ability to reach its maximum productive capacity. This is concerning given its macroeconomic significance, particularly in a nation like Nigeria which is heavily dependent on imports (Olisadebe, 1991).

### 1.1 Statement of the Problem

Although the NHIS was designed to improve healthcare access and financial protection for Nigerians, there is a paucity of empirical evidence on the satisfaction levels of its enrollees. Understanding the factors that influence consumer satisfaction is critical for policymakers and administrators to make informed decisions that can enhance the performance and acceptance of the NHIS. This study seeks to fill this gap by examining the satisfaction levels of NHIS enrollees among the staff of the Federal Teaching Hospital Katsina.

### 1.2 Research Questions

1. To what extent are NHIS clients at the Federal Teaching Hospital Katsina satisfied with the scheme's services?
2. Do educational level, occupational status, marital status, number of children, hospital visits, and awareness of monetary contributions influence client satisfaction?
3. Do clients fully understand the operations and costs of the NHIS?

### 1.3 Objectives of the Study

The study aims to:

1. Examine the extent of client satisfaction with the NHIS at the Federal Teaching Hospital Katsina.

2. Determine the influence of demographic factors and awareness on client satisfaction.
3. Assess clients' understanding of the NHIS operations and costs.

### 1.4 Justification for the Study

Previous studies have investigated client satisfaction with NHIS services in Nigeria, but none have focused on the Federal Teaching Hospital Katsina. This study provides valuable insights for policy direction and managerial decisions to enhance NHIS effectiveness and contribute to the scholarly discourse on health insurance in Nigeria.

### 2.0 Theoretical Literature Review

**Health Insurance Theory:** Health insurance is grounded in the theory of risk pooling, where individuals contribute to a common fund to spread the financial risk of illness. This reduces the financial burden on individuals when they need medical care (Arrow, 1963). The theory of adverse selection, where those most in need of health services are more likely to enroll, and moral hazard, where insured individuals may overuse healthcare services, are also central to understanding health insurance dynamics (Cutler & Zeckhauser, 2000).

**Consumer Satisfaction Theory:** Consumer satisfaction in healthcare can be understood through the disconfirmation theory, which posits that satisfaction is determined by the gap between expected and perceived service quality. If healthcare services meet or exceed expectations, consumers are satisfied; if services fall short, dissatisfaction occurs (Oliver, 1980).

**Quality of Care Theory:** Donabedian's framework for assessing healthcare quality involves structure, process, and outcomes. Structure refers to the resources and organizational characteristics, process involves the interactions between healthcare providers and patients, and outcomes are the

health status results of care. High-quality care in all three dimensions is essential for consumer satisfaction (Donabedian, 1988).

## 2.1 Empirical Literature Review

Studies such as those by Adewole et al. (2015) and Aregbeshola & Khan (2018) have explored the implementation and impact of NHIS in Nigeria. These studies highlight challenges such as limited coverage, inadequate funding, and operational inefficiencies that affect consumer satisfaction. Similarly, Obikeze and Onwujekwe (2020) identified barriers to effective NHIS implementation, including poor governance and inadequate infrastructure.

Mohammed et al. (2011) and Jadoo et al. (2012) examined factors influencing consumer satisfaction with health insurance schemes in various contexts. These studies found that factors such as service quality, accessibility, and awareness significantly affect satisfaction levels. More recent studies by Ukwaja et al. (2017) and Edeh et al. (2018) support these findings, emphasizing the role of perceived service quality in determining satisfaction.

Studies by Bawa & Ruchita (2011) and Ahmed et al. (2016) identified demographic factors such as age, gender, education, and income as significant predictors of satisfaction with health insurance. Awareness and understanding of the insurance scheme's operations were also critical determinants of satisfaction. Osei et al. (2018) and Okpani & Abimbola (2020) further highlighted the importance of trust and transparency in enhancing satisfaction with health insurance schemes.

On the other hand, empirical work on Service quality dimensions, such as responsiveness, reliability, and empathy, have been shown to significantly impact client satisfaction with health insurance schemes (Parasuraman, Zeithaml, & Berry, 1988). A study by Alhassan et al. (2015) found that improving service quality in

NHIS can lead to higher client satisfaction. Similarly, awareness and understanding of health insurance schemes are critical for consumer satisfaction. Studies by Adewole et al. (2015) and Edeh et al. (2018) found that clients with better knowledge of NHIS operations and benefits reported higher satisfaction levels. More so, Ajayi et al. (2015) indicated that client education and awareness significantly impact the level of satisfaction with health insurance schemes. Efforts to improve awareness have shown positive outcomes in client satisfaction and service utilization.

Ware et al. (1983) developed the Patient Satisfaction Questionnaire, which has been widely used to measure satisfaction in various healthcare settings. This tool considers multiple dimensions, including technical quality, interpersonal aspects, and accessibility of care. Study by Fenton et al. (2012) indicated that higher socioeconomic status is associated with higher satisfaction levels due to better access and understanding of healthcare services.

## 3.0 Method of Data Collection

### 3.1 Research Design

This study employed a cross-sectional survey design, collecting primary data through structured and pre-tested questionnaires. The target population comprised staff of the Federal Teaching Hospital Katsina. A cross-sectional design is appropriate for assessing the current state of satisfaction and identifying factors influencing it.

### 3.2 Population and Sample

The population for this study includes all staff members of the Federal Teaching Hospital Katsina. A stratified random sampling technique was used to ensure representation across different departments and job categories. The sample size of 291 respondents was determined using the sample size determination formula:

$$n = \frac{N}{1 + N(e)^2}$$

where N is the population size and e is the accepted error limit of 0.05.

### 3.3 Data Collection Methods

Data were collected using structured questionnaires, which included both closed-ended and open-ended questions to capture quantitative and qualitative data. The questionnaires were pre-tested to ensure clarity and relevance. Data collection was conducted over a period of three months, with respondents providing information on their demographic characteristics, satisfaction levels, and awareness of NHIS operations and financial contributions.

### 3.4 Method of Data Analysis

#### 3.4.1 Descriptive Statistics

Descriptive statistics such as frequencies, percentages, means, and standard deviations were used to summarize the demographic characteristics of the respondents and their levels of satisfaction with NHIS.

#### 3.4.2 Inferential Statistics

Inferential statistical tools, including chi-square tests and logistic regression analysis, were employed to identify factors influencing client satisfaction with NHIS. Chi-square tests were used to examine the association between categorical variables, while logistic regression analysis was used to determine the influence of multiple factors on satisfaction levels. The analysis was performed using SPSS software.

### 4.0 Results and Discussion

#### 4.1 Demographic Characteristics

**Table 1: Sex distribution of the respondents.**

	Count	Column %
Sex Male	246	84.5%
Female	45	15.5%
Total	291	100.0%

Table 1 shows the sex distribution of the respondents. The results revealed that 246 respondents constituting 84.5% were male and 45 respondents constituting 15.5% were female.

Sex as one of the variables being studied is being distributed against the total respondents of the study. The male respondents accounted for approximately 84.5% while the female accounted for 15.5% respondents. This implies low level of female participation in workforce, due to the cultural setting of the study area.

**Table 2: Age and number of years of employment of the respondents**

Variable	Range	Minimum	Maximum	Mean
Age	39	23	62	39.12
Years employment	32	1	33	10.59

Table 2 shows the age and years of employment as distributed amongst the respondents. From the results, the average age of the respondents is 39.12. The lowest age recorded among the respondents was 23 years while the highest age was 62 years of age. This indicates that the average age of the work force of the hospital is within the productive age. Secondly, the average age of employment of the respondents is 10.59 years. The lowest being 1 year of employment and the highest was 33 years of service.

**Table 3: Demographic data (marital status) of the respondents.**

Marital status	Observation	Percentage
Single	80	27.5
Married	211	72.5
Total	291	100

Table 3 shows the marital status of the respondents under study total married respondents were 211 while those that were not married were 80. The main reason for the

above is because the earning strength of the respondents can sustain them to afford and maintain a wife economically. Hence the person is expected to be employed and to be within the range of marriage age, to get married.

**Table 4: Demographic data (Educational attainments).**

	Count	%
educ < Below	13	4.5%
Diploma	87	29.9%
Degree	90	30.9%
PG	101	34.7%

The majority of respondents (84.5%) were male (Table 1), with an average age of 39.12 years and an average employment duration of 10.59 years (Table 2). Most respondents

(72.5%) were married (Table 3), and a significant proportion (95.5%) had tertiary education (Table 4).

## 4.2 Satisfaction Levels

**Table 5: Clients Satisfaction on the National Health Insurance Scheme in the Study Area.**

Variables	Frequency	Percentage	Cumulative percentage
Satisfied	136	46.7	46.7
Not Satisfied	155	53.3	100
Total	291	100	

Chi2 (1) = 1.499

Asymp = 0.021

**Table 6: Results of regression analysis of Dependent Variable with Independent Variables of the Model.**

Dependent variable: Clients Satisfaction	
Independent variables	Coefficient estimates and t-ratios
Occupation level	0.141 (2.002)**
Marital Status	.012 (0.181)
Education qualification	0.145 (2.163)**
Marital style	0.170 (2.536)**
Number of Children	0.047 (0.766)
Hospital Visits	0.007 (0.134)
General Knowledge of NHIS	0.099 (1.947)*
Knowledge of financial contr'n	0.101(1.975)**
Constant	0.012 (0.181)
R <sup>2</sup>	0.57
F-value	5.999***

**Significant at 1% (\*\*\*), 5% (\*\*) & 10% (\*)**

The study found that a majority of respondents (53.3%) were not satisfied with the NHIS. Satisfaction levels varied across different demographic groups, with higher satisfaction reported among those with higher educational levels and better awareness of NHIS operations (Table 5&6).

## 4.3 Factors Influencing Satisfaction

The chi-square analysis indicated significant associations between satisfaction levels and several demographic factors, including

occupational level, educational level, marital status, and knowledge of NHIS operations and financial contributions.

### 4.3.1 Occupational Level

The study found that higher occupational levels were significantly associated with higher satisfaction levels. This may be due to higher-ranking staff having better access to information and resources, enabling them to navigate the NHIS system more effectively. Additionally, they may have higher

expectations and standards for healthcare services, influencing their satisfaction levels. This finding is consistent with the study by Olumide et al. (2017), which noted that higher occupational status often correlates with better health literacy and access to healthcare services.

#### 4.3.2 Educational Level

Educational level also emerged as a significant predictor of satisfaction. Enrollees with higher education levels were more likely to be satisfied with NHIS services. Education likely enhances individuals' ability to understand and utilize healthcare services effectively. Educated enrollees may also have better health-seeking behaviors and greater ability to advocate for their healthcare needs, contributing to higher satisfaction levels. This finding supports the conclusions of Russell (2004), who emphasized the role of education in improving health outcomes and satisfaction with health services.

#### 4.3.3 Marital Status

Marital status was found to influence satisfaction, with married respondents generally reporting higher satisfaction levels. This could be due to the additional support and resources that come with being married, which may facilitate better access to and utilization of healthcare services. Moreover, married individuals might prioritize healthcare more and thus be more proactive in seeking quality care. This aligns with the findings of Sanusi and Awe (2009), who observed that family support systems play a crucial role in healthcare utilization and satisfaction.

#### 4.3.4 Knowledge of NHIS Operations and Financial Contributions

Knowledge about NHIS operations and financial contributions significantly influenced satisfaction levels. Enrollees who were more knowledgeable about how the NHIS works and their financial obligations were more likely to be satisfied with the

scheme. This underscores the importance of effective communication and education about the NHIS to ensure that enrollees have a clear understanding of their rights, benefits, and responsibilities. The low awareness of financial contributions and HMO details among respondents highlights a critical gap in the current implementation of the NHIS, suggesting a need for targeted information dissemination strategies.

#### 4.3.5 Logistic Regression Analysis

Logistic regression analysis indicated that higher educational levels and better awareness of NHIS operations were associated with higher satisfaction levels. The model showed that these factors were significant predictors of satisfaction, with odds ratios indicating the strength of their influence (Table 6).

### 5.0 Discussion

The results of this study provide significant insights into the satisfaction levels of NHIS enrollees at the Federal Teaching Hospital Katsina and the factors influencing their perceptions. This section critically discusses these findings in the context of existing literature and the theoretical framework of the study.

#### 5.0.1 Satisfaction Levels

The study revealed that a majority of respondents (53%) were dissatisfied with the NHIS services at Federal Teaching Hospital Katsina. This finding aligns with previous studies that have highlighted challenges faced by the NHIS in meeting the expectations of its enrollees (Sanusi & Awe, 2009; Mohammed et al., 2011). The dissatisfaction could be attributed to various factors, including perceived poor quality of services, long waiting times, and inadequate healthcare facilities.

#### 5.0.2 Comparison with Existing Literature

These findings align with previous studies that emphasize the importance of education

and awareness in influencing consumer satisfaction with health insurance schemes. Studies by Mohammed et al. (2011) and Jadoo et al. (2012) also found that higher education and better awareness were associated with higher satisfaction levels. However, the specific context of the Federal Teaching Hospital Katsina provides new insights into the unique challenges and opportunities within the NHIS.

### 5.0.3 Implications for Policy and Practice

The findings of this study have several important implications for policymakers and NHIS administrators. To improve satisfaction levels among enrollees, there is a need to enhance the quality of services provided under the NHIS. This includes reducing waiting times, improving healthcare infrastructure, and ensuring that healthcare providers are adequately trained and equipped to deliver high-quality care.

Moreover, targeted educational programs should be implemented to increase awareness and understanding of NHIS operations and financial contributions among enrollees. These programs should be designed to cater to the specific needs of different demographic groups, with a particular focus on junior staff and those with lower educational levels.

Policymakers should also consider revising the NHIS policies to address the specific concerns and needs of different occupational and educational groups. This could involve implementing feedback mechanisms that allow enrollees to voice their concerns and suggestions for improvement.

### 5.0.4 Limitations of the Study

While this study provides valuable insights, it is important to acknowledge its limitations. The cross-sectional design limits the ability to establish causality between the identified factors and satisfaction levels. Additionally, the study was conducted at a single institution, which may limit the generalizability of the findings to other

settings. Future research should consider longitudinal studies and include multiple institutions to validate and extend the findings of this study.

## 5.1 Recommendations

To address the dissatisfaction with NHIS, it is recommended that NHIS providers enhance client education and engagement, particularly among junior staff and those with lower educational levels. Specific strategies include:

1. Implementing targeted communication campaigns to improve clients' understanding of NHIS operations and financial contributions.
2. Providing regular training and workshops to educate staff about the benefits and procedures of NHIS.
3. Enhancing feedback mechanisms to capture clients' concerns and suggestions for improving NHIS services.
4. Conducting regular satisfaction surveys to monitor and address issues promptly.

## 5.2 Conclusion

This study highlights the need for improved client satisfaction with NHIS at Federal Teaching Hospital Katsina. Key factors influencing satisfaction include clients' occupational and educational levels.

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