



ORIGINAL ARTICLE

## Patients' Satisfaction with the Quality of Services accessed under the National Health Insurance Scheme at a Tertiary Health Facility in FCT Abuja, Nigeria

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### Keywords:

Patient Satisfaction, Services, Health insurance, Health facility, Nigeria.

### ABSTRACT

**Background:** Evaluation of patients' satisfaction is increasingly gaining importance as one of the main tools for the assessment of the quality of healthcare delivery and its impact from the patients' perspective. This study assessed patient satisfaction with services accessed under the National Health Insurance Scheme at a tertiary health facility in FCT Abuja, Nigeria.

**Methods:** A cross-sectional study was conducted among NHIS patients attending the General Outpatient Department at the National Hospital FCT Abuja, Nigeria between April and September 2017. Data was collected from 388 patients selected by systematic random sampling; using pretested, anonymous, self-administered, structured questionnaires, with each satisfaction area scored on a five-point Likert scale ordinal response. Evaluation was done from the typical complaints received from NHIS enrollees such as: hospital reception and patient registration process, waiting time, doctors' consultations, laboratory services, availability of prescribed drugs and hospital facilities. Data analysis was done using IBM SPSS Statistics 20.0.

**Results:** The overall average satisfaction score was 58.1%. The satisfaction score with various aspects of services were: doctors' consultation (69.9%), laboratory services (66.5%), hospital facilities (62.2%), hospital services (60.4%), reception/registration (59.8%), waiting time (59%) and prescribed drugs (54.2%).

**Conclusion:** The patient's overall satisfaction was good. However, unavailability of prescribed drugs, long registration processes and waiting time were found to be the major causes of dissatisfaction. Therefore concerted efforts should be directed by all stakeholders towards the areas of patient dissatisfaction through better service delivery.

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### INTRODUCTION

Patient satisfaction is one of the major indices of quality care and health care services outcome and it is gaining importance globally as one of the main tools for the assessment of quality of healthcare delivery and as a means

of measuring the effectiveness health services.

<sup>1</sup> Patient satisfaction is the patient's judgment on the quality and outcome of care. It is the extent to which patients feel that their needs and expectations are being met by the service provider.<sup>2</sup> Evaluation of patient satisfaction is

of great significance in assessing the quality of care and healthcare services outcome as indices assessed from the patient's perspective are recognized as valid and acceptable indicators of quality of care. Patient satisfaction surveys have also been gaining attention as significant sources of information and insightful feedbacks for identifying gaps and developing effective action plans for quality improvement.<sup>2,3</sup>

According to previous studies, the perception and satisfaction of patients with services has been known to influence patients' access, continuous use of health services and health outcome; as satisfied patients tend to comply with medical advice and instructions.<sup>4,5</sup> Patient satisfaction is not only an end goal of treatment; it is also a means towards improving treatment outcomes.<sup>6</sup> The National Health Insurance Scheme (NHIS) in Nigeria, is directed at providing healthcare services, with a commitment to securing universal coverage and access to adequate and affordable healthcare; in order to improve the health status of Nigerians.<sup>7</sup>

The enrollees are the main beneficiaries of the scheme and their perspective about the services accessed is very important. Studies have shown that many NHIS enrollees are dissatisfied with the services accessed under the scheme; with dissatisfaction from service areas like registration processes, long waiting time, poor staff attitudes, and unavailability of prescribed drugs.<sup>1,8-11</sup>

This study evaluated patients' satisfaction with the services accessed under the National Health Insurance Scheme in a tertiary healthcare facility in Federal Capital Territory (FCT) Abuja, Nigeria. Findings from this study will contribute to the literature on the satisfaction of NHIS patients and provide evidence for improvement of service quality in the study setting.

## METHODOLOGY

This was a hospital-based descriptive cross-sectional study carried out among NHIS patients attending the General Outpatient Department of National Hospital between April and September 2017. The hospital is located in the Central Area, FCT Abuja and was established in 1999 originally as National Hospital for Women and Children but later expanded to provide services to everyone in year 2000. It is a 200-bedded hospital, with continuous expansion towards becoming 500 bedded; providing primary, secondary and tertiary care services, and attending to more than five thousand patients monthly including NHIS enrollees.

A minimum sample size of 358 was derived from the Leslie Fisher formula for estimating sample size for descriptive studies<sup>12</sup>, using 63% as the proportion of NHIS enrollees who were satisfied in a previous study in Keffi, Nasarawa State, Nigeria.<sup>9</sup> To compensate for non-response, assuming a response rate of 90%, an adjustment was made by dividing the sample size calculated with the assumed response rate, thus giving a calculated sample size of 398 which was rounded up to 400.

The inclusion criteria included adult NHIS patients aged 18 to 60 years, who have accessed care in the hospital not less than three different occasions and consented to participate in the study, while patients in need of urgent attention, children and patients' relatives were excluded from the study. Patients attending the General Outpatient Department were selected by systematic random sampling on the days questionnaires were administered with a sampling interval of two.

An average of 150 NHIS patients were seen in the General Outpatient Department weekly, excluding other outpatient clinics and clinical services areas. Data was collected for about six

weeks, though the study period lasted around five months due to unforeseen events. Sampling interval was determined by dividing the sampling frame (900) by the sample size (400), thus arriving at a sampling interval of 2. The first patient was selected by simple random sampling and after this, every other patient that met the selection criteria was interviewed. A total of 388 appropriately filled questionnaires were retrieved, giving a response rate of 97%.

Data was collected using pretested, anonymous, self-administered, structured questionnaire designed by the researchers using information from previous studies on patients' satisfaction and the typical complaints received from NHIS enrollees.<sup>1, 8-11</sup> The questionnaire was designed to obtain information on basic demographic characteristics of respondents and satisfaction level with the different components of the hospital's services such as hospital reception/patient registration process, waiting time, doctors' consultations, availability of prescribed drugs, hospital facilities and other services they had accessed in the hospital. Each satisfaction item was scored on a 5-point Likert scale with 1 and 5 indicating the lowest and highest levels of satisfaction, respectively as follows: Very satisfied = 5 points/100%, Satisfied = 4 points/80%, Fairly Satisfied = 3 points/60%, Dissatisfied = 2 points/40%, and Very dissatisfied = 1 point/20%, with the following operational percentage range definitions: Excellent (90%-100%), Very good (70%-89%), Good (50%-69%), Fair (30%-49%), and Poor (0%-29%).<sup>9</sup>

Data analysis was done using IBM SPSS Statistics 20.0; Frequency tables and cross tabulations were generated. Student t test was used to determine statistical significance differences in mean level of satisfaction in two group, and ANOVA (F test) in more than two groups with the level of significance set at  $p <$

0.05. Ethical approval for the study was obtained from the Ethical Committee of National Hospital, Abuja. Participation was fully voluntary, confidentiality and anonymity assured, and written informed consent obtained from the participants.

## RESULTS

The respondents' ages ranged between 18 and 60 years, with majority 236 (60.8%) being less than 40 years. There were 207 (53.4%) males and 181 (46.6%) females. The married and single respondents were 229 (59.0%) and 137 (35.3%), respectively. Two hundred and seventy-eight (71.6%) of them had various forms of post-secondary/tertiary education while 74 (19.1%) had secondary and 34 (8.8%) had primary school as the highest level of education. Majority of the respondents 290 (74.4%) had been enrolled with NHIS for 3 years and above, 68 (17.5%) were between 1-2 years, while 30 (7.7%) were less than 1 year of enrollment (Table 1). The participants responded that their sources of information on the National Health Insurance Scheme were the hospital 191 (49.2%), NHIS/HMOs 158 (40.7%) and friends/families 39 (10.1%).

The overall average satisfaction score was 58.1%. The average satisfaction score for specific areas assessed were: reception / registration (59.8%), waiting time (59.0%), doctors' consultation (69.9%), laboratory services (66.5%), prescribed drugs (54.2%), condition of hospital facilities (62.2%) and hospital services (60.4%). (Table 2)

There was a statistically significant difference in the average satisfaction scores among the age groups. Respondents in the youngest age group were least satisfied compared to those in the oldest age group ( $p=0.013$ ). Also, there was a statistically significant difference in the average satisfaction scores among the levels of education.

**Table 1: Socio-demographic Characteristics of Respondents**

Variables	Frequency (n=388)	Percent
<b>Age group (years)</b>		
< 30	82	21.1
30-39	154	39.7
40-49	109	28.1
50-60	43	11.1
<b>Sex</b>		
Male	207	53.4
Female	181	46.6
<b>Marital Status</b>		
Single	137	35.3
Married	229	59.0
Divorced	10	2.6
Widowed	8	2.1
Separated	4	1.0
<b>Religion</b>		
Christianity	198	51.0
Islam	186	47.9
Traditional	1	0.3
Others	3	0.8
<b>Level of education</b>		
Primary	34	8.8
Secondary	74	19.1
Post-Secondary /Tertiary	278	71.6
koranic Education	2	0.5
<b>Duration of enrollment on NHIS (years)</b>		
< 1	30	7.7
1 - 2	68	17.5
3 - 5	2	36.6
> 5	14	38.1

Respondents with primary level of education were the least satisfied compared to others (p=0.003). There were no statistically significant differences in the average satisfaction scores among the sex, marital status and religious groups (p=0.970, p=0.191 and p=0.104, respectively). There was also no statistical significant difference in the average satisfaction scores and the duration of enrollment with NHIS (p=0.073) (Table 3).

**Table 2: Average satisfaction score for various hospital services**

Variable	Mean Score (%)
Hospital Reception/Registration	59.8 ±19.6
Waiting time	59.0 ±20.4
Medical Consultation	69.9 ± 18.7
Laboratory Services	66.5 ± 21.4
Prescribed drugs.	54.2 ± 20.1
Hospital facilities	62.2 ± 20.8
Other Services	60.4 ± 20.5
<b>Overall Average Score</b>	<b>58.1 ± 8.0</b>

## DISCUSSION

The study showed that the overall satisfaction score with the quality of care received by the NHIS enrollees was 58.1% with varying levels of satisfaction in different domains of services. This is higher than the findings in Zaria (43%)<sup>10</sup> and lower than that of similar studies in Umuahia (66.8%)<sup>1</sup> and Ibadan (83.6%).<sup>11</sup> About half of the patients indicated the hospital as their source of information about NHIS which is different from that of studies in Kaduna<sup>8</sup> and Ibadan<sup>11</sup> which reported friends/families as the major source of information. This may be due to the sustained enlightenment by the NHIS/HMOs and the hospital being a healthcare provider to NHIS patients and also having its staff registered as beneficiaries under the NHIS. This study revealed an average satisfaction score of 69.9% with medical consultation. This finding is lower than that of a similar study in Kano<sup>13</sup> with a patient satisfaction score of 86.8% and higher than 53.9% reported in Uganda.<sup>14</sup> It is however comparable to similar studies in Keffi (70.5%),<sup>9</sup> Ife (63.3%)<sup>15</sup> and Central Ethiopia (62.6%).<sup>16</sup> Some studies have reported that patient satisfaction is strongly correlated with patient perception of medical consultation, doctor-patient interaction, friendliness and care; stating that these significantly influence

**Table 3: Satisfaction score with NHIS by socio-demographic characteristics**

	Satisfaction Score (Mean ± SD)	Statistics	P value
<b>Age group (years)</b>			
< 30	56.6 ± 10.1	F= 3.6	0.013
30-39	57.3 ± 7.8		
40-49	59.1 ± 8.3		
50-60	61.1 ± 9.1		
<b>Sex</b>			
Male	58.1 ± 9.5	t= 0.1	0.970
Females	58.1 ± 7.7		
<b>Marital Status</b>			
Single	58.6 ± 8.7	F=1.7	0.191
Married	57.5 ± 8.9		
Others	60.6 ± 5.7		
<b>Religion</b>			
Christianity	58.7 ± 8.8	F= 2.3	0.104
Islam	57.3 ± 8.6		
Others	64.2 ± 4.2		
<b>Level of education</b>			
Primary	54.9 ± 11.9	F=4.7	0.003
Secondary	61.0 ± 8.3		
Post-Secondary /Tertiary	57.6 ± 8.2		
Koranic	61.3 ± 3.8		
<b>Duration of Enrollment (years)</b>			
<1	59.3 ± 9.2	F=0.4	0.733
1-2	58.1 ± 9.4		
3-5	58.3 ± 8.4		
>5	57.5 ± 8.7		

patient satisfaction, adherence to medical advice and health outcomes.<sup>14, 17-19</sup> Hence, one of the key areas to work on towards enhancing patient satisfaction and improving patient outcomes is improving the quality of clinician-patient interactions and medical consultations.

A satisfaction score of 66.5% with the laboratory services was reported by the participants and this is higher than studies conducted in Addis Ababa (53.9%),<sup>20</sup> and lower than in Eastern Ethiopia (87.6%).<sup>21</sup> The major cause of dissatisfaction with laboratory services was the delay before sample collection

and getting results. This is similar to a study in Kano, North-West Nigeria, <sup>5</sup> which showed that most of the patients who were dissatisfied with laboratory services complained of delays in sample collection and getting results. Waiting time is one of the factors which can affect utilization of healthcare services, as patients usually see long waiting times as a barrier to accessing services.<sup>22</sup> The satisfaction score (59%) for waiting time reported by this study is higher than 43.8% reported in Umuahia<sup>1</sup> and lower compared to the findings in Ibadan (77.8%).<sup>11</sup> Long waiting time can be attributed to large number of patients accessing care in the hospital, manual processes and insufficient number of health personnel. Similar observations were made in Sokoto, Northwest Nigeria <sup>22</sup> and Iran <sup>23</sup>, where the challenges related to long waiting time were mainly three key factors; large number of patients, registration process, shortage of physicians and professional staff. Studies have shown that long waiting time is one of the factors responsible for poor uptake of health services and measures towards reducing patient waiting time usually result in overall improvement of patient satisfaction. <sup>24-26</sup>

The satisfaction score for prescribed drugs was found to be at 54.2% with unavailability of prescribed drugs being the main cause of dissatisfaction. Unavailability of drugs under the NHIS in hospitals could have negative effects on health seeking behaviour and access as this compels patients to make out-of-pocket expenses for their medicines, making them to lose faith in the health insurance programme. Similar studies in Keffi,<sup>9</sup> Zaria<sup>10</sup> and Ibadan<sup>11</sup> have also shown high levels of dissatisfaction with prescribed drugs. Studies have also reported that patients associate availability of drugs with quality of service. <sup>27, 28</sup> Unavailability of prescribed medications has been found to be one of the frequent

complaints associated with patients' dissatisfaction, and access to drugs listed as one of the most suggested priorities for the improvement of public health services. <sup>28</sup> This study showed a satisfaction score of 62.2% for hospital facilities, which is lower than the findings in Kano,<sup>5</sup> with a satisfaction of 87% and similar to the 60.3% reported in Keffi. <sup>9</sup> The physical settings in which services are delivered have significant influence on patient satisfaction and there is considerable amount of evidence linking healthcare environments to patients' health outcomes; showing that patients responded positively to pleasing surroundings and comfort. <sup>29-31</sup>

### **Limitations of the Study**

The study was conducted amongst NHIS patients in only one facility, limiting the generalization of the findings to other settings. Further comparative satisfaction studies between NHIS and uninsured patients and in different healthcare facilities would address the limitations.

### **Conclusion**

In conclusion, the study revealed a good level of patient satisfaction with services accessed under the National Health Insurance Scheme in this tertiary health facility. However, there were some areas of dissatisfaction, especially availability of prescribed drugs, registration process and waiting time. These all need to be addressed by ensuring the availability of drugs in the pharmacy, streamlining and automation of registration and making more doctors and other medical personnel available for consultation and other ancillary services.

The NHIS and the HMOs should ensure that healthcare facilities comply with the NHIS operational guideline through regular monitoring, evaluation and quality assurance to ensure that services provided are in consonance with NHIS standards. Healthcare

facilities should also make concerted efforts towards the sustainable delivery of improved and qualitative health services.

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