

## Healthcare Quality under the National Health Insurance Scheme: A Study among Patients at a Tertiary Health Institution in Nigeria

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### ABSTRACT

**Background:** The National Health Insurance Scheme (NHIS) provides health services through accredited healthcare facilities, and studies have shown mixed perceptions about the quality of accessed services, with some enrollees commending it and several others adjudging it poor.

**Objective:** This study was to determine patients' satisfaction with the quality of care under the NHIS and identify reasons for dissatisfaction in a tertiary healthcare institution in the Federal Capital Territory (FCT) Abuja, Nigeria.

**Methodology:** A cross-sectional study was conducted among NHIS patients attending the General Outpatient Department at the University of Abuja Teaching Hospital, Gwagwalada, FCT - Abuja, Nigeria in July, 2018.

Data were collected from 305 patients selected by systematic random sampling; using pretested, structured, interviewer-administered questionnaires with each satisfaction area scored in a five-point Likert scale ordinal response. The questionnaire contained information on sociodemographic characteristics and accessed services. Data analysis was done using IBM SPSS Statistics 20.0.

**Results:** The overall mean satisfaction score was 68.6±12.5. The major causes of dissatisfaction were: long registration processes, poor card retrieval, long waiting time, short doctor's consultation, long time taken to get laboratory test results and unavailability of prescribed drugs.

**Conclusion:** The study revealed a good satisfaction level with services accessed under

the NHIS in this tertiary health institution. Several causes of dissatisfaction were also given and it is essential to address these, as dissatisfaction could influence negatively patients' health seeking behaviour, discourage utilization and result in attrition; with the attendant adverse effects on the attainment of the NHIS goals and objectives.

**Key words:** Healthcare; Quality; Patients; Satisfaction; health insurance; Nigeria.

### INTRODUCTION

The vision of making quality healthcare accessible and affordable to the Nigerian population necessitated the establishment of the National Health Insurance Scheme (NHIS) by the Federal Republic of Nigeria. [1] Health insurance is a healthcare financing system through various prepayment modes, offering financial protection and ensuring that the cost of healthcare does not put financial burden on the beneficiaries.

Health insurance is a veritable tool towards the attainment of universal health coverage, [2] and it is a common strategy adopted by governments in many nations; establishing a compulsory social health insurance scheme for workers in the formal sector, and simultaneously promoting voluntary schemes for those working in the informal sector. [3]

The provision of qualitative healthcare services through accredited healthcare facilities is one of the objectives

of the NHIS, and studies have shown mixed perceptions about the quality of services under the scheme, with some enrollees commending it and several others adjudging it poor. [4-7] Studies have reported poor services, dissatisfaction with hospital bureaucracy with obtaining cards, cumbersomeness of NHIS registration process, lack of prescribed drugs, long waiting time and poor attitude of health workers. [5-10]

The Nigerian health system is still majorly characterized by out-of-pocket expenditures, as only a few percentage of the population (mainly Federal civil/public servants) are being covered under the NHIS. While the process of increasing coverage and moving toward Universal Health Coverage is ongoing, it is essential to continue evaluating the perception of the beneficiaries towards continuous improvement of the quality of services.

The quality of services accessed by the patients has been one of the focal areas since the inception of the NHIS, and many studies have used patients' satisfaction as an indicator of the evaluation of the quality of care. [1,5,7,11] Patient satisfaction is the patient's opinion about the care received. Patients are the focal point of health services; hence the importance of incorporating their perspectives in the evaluation of health care systems cannot be overemphasized.

According to Donabedian's declaration, "patient satisfaction is an expression of patient's judgment on the quality of care in all its aspects..." [12] It is one of the main indicators of patient experience about health care services and quality of care provided in different areas of health care; including technical, interpersonal, and organizational aspects. [13-15]

Evaluating feedbacks from patients about satisfaction with the quality of services accessed, and reasons for dissatisfaction can be used as an important process in identifying service gaps,

improving quality and developing patient-centered care.

This study assessed the level of patients' satisfaction with the quality of care under the NHIS and reasons for dissatisfaction in a tertiary healthcare facility in Federal Capital Territory (FCT) Abuja, Nigeria. It will contribute to the delivery of evidence based information which can be used by stakeholders and policy makers to prioritise appropriate interventions required towards addressing reasons for patients' dissatisfaction and improving the quality of services and in the study area and other similar settings.

## **MATERIALS AND METHODS**

The University of Abuja Teaching Hospital, located in Gwagwalada in the Federal Capital Territory of Nigeria is a 350 bed health facility with capacity for expansion to 500 beds. It was established in 1992 as a specialist hospital and transformed to a Federal Medical Centre in 1993 following its transfer to the Federal Ministry of Health. It was later upgraded to a Teaching Hospital for the University of Abuja in September 2006. [16]

Gwagwalada is one of the six Local Government Area Councils of the Federal Capital Territory of Nigeria, and it is also the main town in the LGA with an area of 1,043 km<sup>2</sup> and a population of 157,770 at the 2006 census and a current population of about one million people. [17]

A descriptive cross-sectional study was carried out among NHIS patients attending the General Outpatient Clinic of the hospital in July 2018, with a sample size of 305 determined using the Fishers' formula  $z^2pq/d^2$ . [13, 18]

NHIS patients above the age of 18 years, who were willing to participate in the study and have accessed care in the hospital not less than two previous occasions, were interviewed at the General Outpatient Clinic. Patients younger than 18 years, acutely ill looking patients and those requiring urgent attention were excluded from the study.

A systematic random technique was used to select patients. Sampling frame was determined using records from the General Outpatient Clinic, which showed that an average of about NHIS 1000 patients was seen monthly. The study period was one month, hence the sampling frame was 1000 and a sampling interval of 3 used in selecting patients, with the index patient selected by simple random sampling.

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

### STATISTICAL METHODS

Data were collected using pretested, structured, interviewer-administered questionnaires designed by the researchers using information from literature review and previous similar studies on patients' satisfaction. [11-15] The questionnaire contained information on basic demographic variables and satisfaction in areas of care such as: hospital reception/patient registration process, waiting time, medical consultation, nursing care, availability of prescribed drugs, laboratory services, hospital facilities and respondents' reasons for dissatisfaction with the assessed areas.

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%, Neutral = 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%). [5]

Data analysis was done using IBM SPSS Statistics 20.0. Frequency tables and cross tabulations were generated and Chi-square test was used to determine statistical significance of observed differences in cross

tabulated variables. Level of significance was set at  $p < 0.05$ .

### RESULTS

A total of 305 study participants were included in the study, with a mean age of  $36 \pm 10.2$  years. There were 133 (43.6%) males and 172 (56.4%) females. Most of the participants were married 220 (72.1%) while 82 (26.9%) were single, 241 (79.0%) had various forms of post-secondary/tertiary education. [Table 1]

The overall mean satisfaction score was 68.6%. Participants' satisfaction in the various areas of services as follows; hospital reception/ registration process (67.2%), waiting time (59.5%), medical consultation (78.1%), laboratory Services (70.4%), prescribed drugs (61.2%) and Nursing Care (70.9%). [Table 2]

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

Variables	Frequency (n=305)	Percent
<b>Age group (years)</b>		
< 30	102	33.4
30-39	104	34.1
40-49	68	22.3
50-59	23	7.5
$\geq 60$	8	2.6
<b>Mean: <math>36 \pm 10.2</math></b>		
<b>Sex</b>		
Male	133	43.6
Female	172	56.4
<b>Marital Status</b>		
Single	82	26.9
Married	220	72.1
Divorced	2	0.7
Widowed	1	0.3
<b>Religion</b>		
Christianity	223	73.1
Islam	80	26.2
Others	2	0.7
Primary	14	4.6
Secondary	50	16.4
Post-Secondary/Tertiary	241	79.0

**Table 2: Level of satisfaction with various aspects of services**

VARIABLE	MEAN SCORE (%)
Hospital Reception/Registration	67.2 $\pm$ 21.0
Waiting time	59.5 $\pm$ 22.9
Medical Consultation	78.1 $\pm$ 20.3
Laboratory Services	70.4 $\pm$ 21.3
Prescribed drugs.	61.3 $\pm$ 23.4
Nursing Services	70.8 $\pm$ 19.4
Overall Mean Score	68.6 $\pm$ 12.5

Those that indicated reasons for dissatisfaction with the reception/registration process were 92; majority 53 (57.6%) and 48 (52.2%) were dissatisfied due to long

registration processes and poor card retrieval, while 24 (26.1%) expressed unfriendly hospital staff as their reason for dissatisfaction [Table 3]

Long waiting time 110 (82.7%) accounted for the main reason for dissatisfaction with waiting time. Out of the 37 respondents who gave reasons dissatisfaction with doctors' consultation, close to half, 18 (48.6%) indicated short doctor's consultation as their reason for dissatisfaction. Non-availability of drugs 84 (81.6%) was the main reason for dissatisfaction with prescribed drugs. Sixty-one (61) participants stated reasons for dissatisfaction with the laboratory services, close to half 29 (47.5%) complained about the long time taken to get results of laboratory tests. [Table 3]

Fifty-two participants stated reasons for dissatisfaction with nursing care; out of which 25 (48.1%) were due to inadequate attention, 20 (38.5%) long waiting time and 19 (36.5%) unfriendly nurses. [Table 3]

Younger people, females, those married and respondents with lower education reported high level of satisfaction; all with no statistically significant

differences. (p values: 0.84, 0.45, 0.98 & 0.82 respectively) [Table 4].

**Table 3: Distribution of respondents by reasons of dissatisfaction**

Reasons for dissatisfaction	n	%
<b>Reception/Registration N= 92</b>		
Unfriendly Staff	24	26.1
Long registration process	53	57.6
Poor medical records/Card retrieval	48	52.2
<b>Waiting time N= 133</b>		
Long Queue and waiting time	11	082.7
No orderliness on queue	24	18.0
Partiality in attending to patients	29	21.8
Sitting area (facilities) not conducive	16	12.0
<b>Doctors' Consultation N= 37</b>		
Doctor unfriendly	5	13.5
Consultation time too short	18	48.6
Not given adequate attention	13	35.1
Not allowed to explain myself well	4	10.8
Poor communication of medical condition	8	21.6
<b>Prescribed Drugs N=103</b>		
Unfriendly staff	14	13.6
Prescribed drugs not available	84	81.6
Prescribed drugs not effective	17	16.5
Asked to pay > 10% copayment of drug cost	15	14.6
Asked to pay for covered drugs	15	14.6
<b>Laboratory Services N= 61</b>		
Unfriendly staff	15	26.4
Waiting time before being attended to too long	29	47.5
Time taken to get results long	26	42.6
Asked to pay for investigations	16	26.2
<b>Nursing Care N= 52</b>		
Unfriendly Nurse	19	36.5
Not given adequate attention	25	48.1
Waited long before being attended to	20	38.5

**Table 4: Satisfaction score with NHIS by socio-demographic characteristics**

Variable	Satisfied	Dissatisfied	Neutral	X <sup>2</sup>	P-value
<b>Age group (years)</b>					
< 30	65(67.7)	3(3.1)	28(29.2)	13.91	0.84
30-39	76(69.1)	8(7.3)	26(23.6)		
40-49	53(77.9)	4(5.9)	11(16.2)		
50-59	14(60.9)	4(17.4)	5(21.7)		
≥ 60	4(50.0)	2(25.0)	22(5.0)		
Total	212(69.5)	21(6.9)	72(23.6)		
<b>Sex</b>					
Male	88(66.2)	9(6.8)	36(27.1)	1.58	0.45
Female	124(72.1)	12(7.0)	36(20.9)		
Total	212(69.5)	21(6.9)	72(23.6)		
<b>Marital Status</b>					
Single	56(69.1)	6(7.4)	19(23.5)	1.81	0.98
Married	152(69.1)	15(6.8)	53(24.5)		
Divorced	2(100.0)	0(0.0)	0(0.0)		
Widowed	2(100.0)	0(0.0)	0(0.0)		
Total	212(69.5)	21(6.9)	72(23.6)		
<b>Education</b>					
Primary	83(68.0)	8(6.6)	31(25.4)	1.49	0.82
Secondary	84(70.6)	10(8.4)	25(21.0)		
Post-Secondary/Tertiary	45(70.3)	3(4.7)	16(25.0)		
Total	212(69.5)	21(6.9)	72(23.6)		

## DISCUSSION

The overall mean satisfaction was 68.6% with satisfied services in the General Out-patient department of the hospital, with

various levels of satisfaction in the different aspects services accessed. Patients get the first impression of a healthcare facility at the point of entry, usually the registration

and health records section. Long registration processes and poor card retrieval accounted for 57.6% & 52.2% respectively of the reasons given by the majority respondents who were dissatisfied with the registration process. A study at Umuahia, South-Eastern Nigeria reported that patients were not satisfied with the hospital bureaucracy starting with obtaining cards. [7] Another study in Ibadan, Southwest Nigeria reported that one of the foremost factors hindering effective utilization of NHIS is the poor registration process. [8]

Many respondents who reported reasons for dissatisfaction with the waiting time complained of long waiting before medical consultation. Long waiting time could be attributed to the large number of patients accessing care in the healthcare facility. Evidences from previous studies [20-22] have also shown that long waiting time influences negatively the utilization of health services and when patients have to wait for a long time before being attended to, they are less likely to utilize health services. A strong and inverse relationship between patient satisfaction and waiting times in ambulatory care settings has also been reported [23] and some studies have shown that reducing patient waiting time has positive impact on patient satisfaction. [24, 25] The three most common factors leading to long waiting time observed in a study in North western Nigeria were high patient load, few doctors, and record clerks. [26]

About half (48.6%) of patients who reported dissatisfaction with doctor's consultation complained that it was too short. This may be due to the large number of patients being attended to in relation to few numbers of available doctors. In most developing countries, there is shortage of medical doctors which may be due to the challenges of training, and then the migration of quite a number of the trained few to other countries in search of greener pastures. [27] There is an imbalance of doctor-patient ratio and the need for the available doctors to attend to the huge number of patients would normally result in short consultation time, a

short mean consultation time of about 3½ minutes was observed in a study with similar conditions in Malaysia. [28]

About half (47.5%) of those dissatisfied with the laboratory services complained about the long time taken to get results of laboratory tests. This is similar to findings in Kano, North-West Nigeria. [15] A study in Tanzania also reported that a significant proportion of patients who were dissatisfied with the laboratory services, complained about the waiting time and result notification. [29]

Non-availability of prescribed drugs as reported by majority (81.6%) of respondents accounted for the main reason among those who reported dissatisfaction with prescribed drugs. Availability of drugs has been a challenging issue in many healthcare facilities. A study in Ibadan, Southwest-Nigeria ranked non-availability of prescribed drugs as one of the leading factors hindering effective utilization of NHIS services. [8] Studies have also reported non-availability of prescribed drugs to be the major complaint associated with lower satisfaction, and access to drugs one of the most suggested priorities for improvement of public health services [19, 30]

The NHIS operational guidelines state that "health facilities shall stock generic drugs based on the NHIS Drugs List."<sup>1</sup> It is imperative therefore for the NHIS and HMOs to enforce compliance with the guideline, while also working with other relevant stakeholders such as NAFDAC to ensure drug quality. When medicines are not available, patients will have to go without the prescribed medications, look for means of purchasing them or go for alternative forms of treatment. Health facilities therefore should ensure the availability of drugs and use identified alternatives that can substitute for the unavailable drug should such occurs.

## CONCLUSION

This study revealed the level of satisfaction and reasons for dissatisfaction with services accessed under the National

Health Insurance Scheme in this tertiary health institution. It is essential to address these reasons, as dissatisfaction could influence negatively patients' health seeking behaviour, discourage utilization and result in attrition; with the attendant adverse effects on the attainment of the NHIS goals and objectives.

Stakeholders, especially the NHIS, HMOs and healthcare facilities need to ensure that reasons for dissatisfaction are addressed appropriately towards the delivery and sustainability of quality services.

### Competing Interest

The authors declare no conflicts of interest or competing interests associated with this manuscript.

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