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Original Article

Patient Satisfaction with Quality of Care in NHIS Clinic in a Federal Tertiary Hospital in Southwest Nigeria

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Abstract

Background: The National Health Insurance Scheme (NHIS) now named National Health Insurance Authority (NHIA) was launched to achieve easy access to affordable quality healthcare for all Nigerians. This study aimed at evaluating patients' satisfaction with the services accessed at the NHIS clinic in a tertiary teaching hospital in Southwest, Nigeria.

Methodology: This cross-sectional study carried out at the Federal Teaching Hospital, Ido-Ekiti, Nigeria included all adult patients (> 18 years) who have been enrolled in the scheme for at least one year and have accessed healthcare at the clinic within three months preceding the study. Data was collected from 391 patients using a semi-structured interviewer-administered questionnaire in an exit interview. Data on patients' satisfaction with the quality of care was adapted from the Patient Satisfaction Questionnaire (PSQ 18). Data entry and analyses were done with the SPSS version 26.0.

Results: The mean age (±SD) of the respondents was 43.5±14.5 years. More than half 204 (52.2%) of the patients were male, 291 (74.4%) were married, and 319 (81.6%) had attained tertiary level education. The overall satisfaction score was 75.02 ± 6.37, with communication (78.5 ± 11.6) and interpersonal manner (79.6 ± 10.0) having the highest scores. Predictors of overall satisfaction were longer travel time ($p < 0.001$) and readiness to return to the clinic for treatment ($p = 0.001$).

Conclusion: There was a high level of patient's satisfaction with the quality of healthcare services rendered at the NHIS clinic, with domains related to interpersonal and communication ranked highest. Travel time and willingness to return were factors significantly associated with patients' satisfaction. There is the need for the management of NHIS clinics to continuously improve on the quality of healthcare services provided.

Keywords: Patient's Satisfaction, National Health Insurance Scheme, NHIS, Healthcare Services, Quality of Care, Nigeria.

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Introduction

The National Health Insurance Scheme (NHIS) now named National Health Insurance Authority (NHIA) was launched in 2005 amidst dwindling funding and the poor state of the nation's healthcare to achieve easy access to affordable quality healthcare for all Nigerians by protecting families from the financial hardship of huge medical bills and providing equitable distribution of health care costs among different income groups [1]. The key roles and responsibilities of healthcare facilities under the NHIS are providing services in full compliance with the NHIS operational guidelines and essentially ensuring patient satisfaction [2]. Steady patronage, wider coverage and patients' satisfaction with NHIS services are decisive in fulfilling the scheme's objectives of providing improved service delivery [2,3].

Studies have revealed considerable increment in enrolment into and utilization of health services among patients since NHIS started operations [4,5]. Despite that, patients have repeatedly expressed dissatisfaction about the quality of care obtained with recurrent complaints including long waiting times, poor health workers' attitude and unavailability of prescribed drugs [6-8]. Patients as end users are the focal point of health care service delivery, and these days, patients desire stress-free instant services in this rapidly growing world [9]. Predictably, complaints of dissatisfaction are one of the main reasons patients contacted the Agency and Health Management Organizations (HMOs) channels as well as demand for change in their healthcare providers [7].

Interestingly, reports suggested that satisfied patients were more likely to comply with treatment, keep follow-up appointments and utilize healthcare services [9,10]. Therefore, the success of NHIS operations depends largely on the quality of care provided to patients not to mention studying healthcare quality from the patient's perspective which supplies valid and reliable information about the quality of care [11]. Similarly, patient satisfaction surveys are valuable tools used in evaluating the quality of both clinical and non-clinical NHIS services [12,13]. While patient satisfaction is simply defined as a patient's judgment on the quality and outcome of care [7], it is the extent to which patients feel that their overall needs and expectations are being met by the service provided [14]. Patient satisfaction is viewed through the prism of ease with which patients access care, perception of waiting time, patient-provider relationship, payment for services, hospital facilities and the environment [9].

Available literature from previous studies conducted in Nigeria that assessed healthcare patients' satisfaction with the quality of services of NHIS-accredited healthcare facilities showed mixed findings. There are reports of high overall satisfaction ratings with varying levels of satisfaction in different domains of services at various parts of the country ranging from 42 - 83.6% [5-7, 9, 15, 16]. Previous studies have also shown that one of the main reasons for the dissatisfaction of most NHIS patients was the non-availability of prescribed drugs [7,8], delay in enrolment of potential patients [17], and delay in reimbursement of healthcare providers by the HMOs [3]. Identifying correlates of patient satisfaction is integral for targeted strategic planning and addressing the aforementioned challenges threatening the scheme will improve remarkably the quality of services provided [3].

Despite the launch of service compact with all Nigerians (SERVICOM) to enhance service delivery in the public sector, regular patient satisfaction surveys are not done routinely in hospitals [9]. Similarly, the NHIS Formal Sector Social Health Insurance Programme has been operational for over a decade in the selected tertiary teaching hospital still there has been limited literature on patients' satisfaction with the quality of care of NHIS services bearing in mind that monitoring of patients' experiences and satisfaction provide the health institution parameters to measure quality of services and determine areas where improvement and or additional services are needed [18].

Furthermore, the mixed findings on patients' satisfaction in previous studies justify the need for more evidence-based research to ascertain the correlates of patient satisfaction with NHIS services in tertiary health institutions. Therefore, this study is aimed at evaluating patients' satisfaction with the services accessed at the NHIS clinic in a tertiary teaching hospital in Southwest, Nigeria. It is expected that the findings from this study will assist program managers and policymakers in making patient-centred choices in planning strategies to improve the quality of NHIS services in the accredited facilities under the scheme as the country makes continued efforts to achieve universal health coverage [3].

Materials and Methods

This cross-sectional study was carried out at the NHIS clinic of the Federal Teaching Hospital, Ido-Ekiti, Southwest, Nigeria. The hospital is the only federal government tertiary health institution in Ekiti State, and it serves as a referral centre for all other health institutions within the state. It is a 300-bed health facility with a staff strength of over three thousand personnel. The NHIS clinic is the central point where all patients under the health insurance scheme accessing care in the hospital are treated, from where they may be further referred to specialist clinics. The NHIS clinic is headed by a consultant physician along with him and resident doctors from family and community medicine as well as doctors having their one-year compulsory youth service consult patients in this clinic. There are also nurses, pharmacists, laboratory scientists, health information managers and administrative officers in the clinic serving important areas of patients' health care such as drug dispensaries, side laboratory services and the NHIS administrative desk activities. With about sixty patients being attended daily, the clinic operates 24 hours and 7 days a week.

This study included all adult patients (> 18 years) who are accessing health care at the NHIS clinic, who have been enrolled in the scheme for at least one year and have accessed care within three months preceding the study. Acutely ill-looking patients requiring urgent medical attention were excluded from the study. A minimum number of 391 patients who were recruited for this study was derived through the Leslie–Kish formula ($n = Z\alpha^2pq/d^2$) [19] using 63.1% as the proportion of enrollees in a federal tertiary health facility, who were satisfied with NHIS in a previous study [7], 5% margin of error, 95% confidence interval and 10% non-response rate. Every alternating consenting patient seen at the clinic was recruited into the study until the sample size was complete. Patients were interviewed in an exit interview after their clinic consultation.

A semi-structured interviewer-administered questionnaire was used for data collection. This questionnaire had 3 sections: Section A elicited socio-demographic characteristics, section B elicited contextual and clinical characteristics of participants while section C contains questions on patients' satisfaction with the quality of care, adapted from the Patient Satisfaction Questionnaire (PSQ 18) by Marshalls and Hays [20]. The psychometric properties of PSQ 18 were evaluated with face and content validity assessed by experts (Clinical epidemiologists, Consultant Community Health Physicians, and Consultant Family Physicians) through the review of the instrument. The PSQ 18 is an 18-itemed instrument using a five-point Likert scale. All items were scored so that high scores reflect satisfaction with the quality of care. After item scoring, items within the same subscale were grouped and averaged together to create 7 subscale/domain which include: General satisfaction (Items 3 and 17), technical quality (Items 2, 4, 6, and 14), interpersonal manner (Items 10 and 11), communication (Items 1 and 13), financial aspects (Items 5 and 7), time spent with doctor (Items 12 and 15), accessibility and convenience (Items 8, 9, 16, and 18). The overall satisfaction was derived from an average of all the 18 questions. The individual satisfaction domain as well as the overall satisfaction raw scores were later converted and presented in percentages as patients' satisfaction scores.

Data entry and analyses were done with the SPSS for Windows version 26.0. Data were presented in tables using frequencies and percentages for categorical variables. Mean ± standard deviation (SD) was used to summarize continuous variables. The Shapiro-Wilk test was used to confirm the normality of the patients' satisfaction scores before using the independent student t-test and one-way analysis of variance (one-way ANOVA) to compare overall patients' satisfaction scores across the categories of independent variables (sociodemographic, contextual, and clinical factors). A P-value <0.05 was considered statistically significant. Ethical approval for this study was obtained from the Health Research and Ethics Committee of the Federal Teaching Hospital, Ido-Ekiti. Written informed consent was obtained from all selected participants, while confidentiality and privacy were maintained at all stages of the study.

Results

Table 1 shows that the mean age (±SD) of the respondents was 43.5±14.5 years. More than half 204 (52.2%) of the patients were male, 291 (74.4%) were married, and 319 (81.6%) had attained education up to the tertiary level. Also, 310 (79.3%) of the patients were Yoruba, with the main occupation 235 (60.1%) being civil servants. The table also revealed that most of the respondents, 312 (79.8%), had ≤ 5 household size, with the mean (±SD) household size of 4.7 (±1.4).

Table 1: Socio-demographic variables of respondents

Variable	Frequency (N= 391)	Percentage (%)
Age (in years)		
≤ 44 years	248	63.4
≥ 45-64 years	101	25.8
≥ 65 years	42	10.7
Mean ± Standard Deviation	43.5 ± 14.5	
Sex		
Male	204	52.2
Female	187	47.8
Highest level of education		
Up to Secondary	55	14.1
Tertiary	319	81.6
Others	17	4.3
Marital status		
Never married	78	19.9
Married	291	74.4
Divorced/Widowed/Separated	22	5.6
Religion		
Christianity	332	84.9
Islam	59	15.1
Tribe		
Yoruba	310	79.3
Igbo	59	15.1
Others	22	5.6
Main Occupation		
Trader	40	10.2
Farmer	19	4.9
Artisan/Technician	12	3.1

Civil Servant	235	60.1
Professional	17	4.3
Student	31	7.9
Others	37	9.5
Household size		
≤ 5	312	79.8
> 5	79	20.2
Mean ± Standard Deviation	4.7 ± 1.4	

Table 2 presents the contextual and clinical variables of the patients, with 216 (55.2%) of the patients having been enrolled on NHIS within less than 6 years. About two-thirds of the patients, 256 (65.5%) had visited the hospital between one and three times within the last year. Furthermore, the travel time to the hospital by the respondents was within 1 to 23 minutes for 273 (69.8%). Also, 249 (63.7%) of the respondents waited between 1 and 15 minutes before accessing care, with a median (range) waiting time of 10 (1 – 300) minutes. The majority, 374 (95.7%) indicated their willingness to return to the NHIS Clinic for treatment, while only 65 (16.6%) indicated their willingness to pay out-of-pocket for the same service at the hospital.

Table 2: Contextual and clinical variables of respondents

Variable	**Frequency (N= 391)**	**Percentage (%)**
Duration in NHIS (in years)		
1- 6	216	55.2
> 6	175	44.8
Number of Hospital visits in the last 1 year		
1 – 3	256	65.5
> 3	135	34.5
Travel time (in minutes)		
1 – 23	273	69.8
> 23	118	30.2
Waiting time (in minutes)		
1 - 15	249	63.7
>15	142	36.3
Median (Range)	10 (1 - 300)	
Willingness to return to NHIS for treatment		
Yes	374	95.7
No	17	4.3
Will you prefer to pay out-of-pocket for the same service at the hospital		
Yes	65	16.6
No	326	83.4
If you were to contribute from your monthly income to NHIS, are you willing to		
Yes	111	28.4
No	280	71.6

Table 3 presents the patients' level of satisfaction with the NHIS clinic. The overall satisfaction score was 75.02±6.37, with communication (78.5±11.6) and interpersonal manner (79.6±10.0) having the highest scores. Domains related to finances and time spent with the doctor and general satisfaction had the lowest scores (74.4±12.8, 74.2±12.5 and 69.8±13.3 respectively).

Table 3: Patients' satisfaction with quality of care

Patients' satisfaction domain	Raw score (Mean±SD)	Maximum obtainable raw score	Patients' satisfaction Score (Mean±SD)
General Satisfaction	6.98 ± 1.33	10.00	69.8 ± 13.3
Technical Quality	14.82 ± 1.98	20.00	74.1 ± 9.90
Interpersonal Manner	7.96 ± 1.00	10.00	79.6 ± 10.0
Communication	7.85 ± 1.16	10.00	78.5 ± 11.6
Financial Aspects	7.44 ± 1.28	10.00	74.4 ± 12.8
Time Spent with Doctor	7.42 ± 1.25	10.00	74.2 ± 12.5
Accessibility and Convenience	15.06 ± 1.91	20.00	75.3 ± 9.55
Overall satisfaction	***67.52 ± 5.73***	***90.00***	***75.02 ± 6.37***

Table 4 presents the factors (sociodemographic, contextual and clinical) associated with overall satisfaction. There was a significant association ($p < 0.001$) between travel time and overall satisfaction. Notably, greater satisfaction levels were substantially associated with both readiness to return to the clinic ($p = 0.001$). Most factors in Table 4 did not show significant association with overall satisfaction ($p > 0.05$), including age, sex, education, marital status, religion, length of time in NHIS, number of hospital visits, waiting time, referral history, preference to pay out-of-pocket, and willingness to contribute to NHIS.

Table 4: Association between patient satisfaction score and socio-demographic and contextual factors

Variable	Patient Satisfaction Score Mean ± SD	Test	P-value
Age (in years)		0.156^{F}	0.856
≤ 44 years	75.12 ± 6.353		
45-64 years	75.00 ± 7.028		
≥ 65 years	74.52 ± 4.639		
Sex		-0.309^{T}	0.757
Male	74.93 ± 6.656		
Female	75.13 ± 6.048		
Highest level of Education		0.296^{F}	0.744
Up to Secondary	75.52 ± 6.988		
Tertiary	74.98 ± 6.243		
Others	74.25 ± 6.841		
Marital Status		1.253^{F}	0.287
Never married	74.15 ± 6.315		
Married	75.32 ± 6.381		
Divorced/Widowed/Separated	74.19 ± 6.266		
Religion		-0.142^{T}	0.887
Christianity	75.01 ± 6.495		
Islam	75.12 ± 5.631		
Tribe		3.872^{F}	**0.022**
Yoruba	75.19 ± 6.418		

Igbo	75.52 ± 6.230		
Others	71.41 ± 4.947		
Main occupation		1.585[F]	0.150
Trader	75.03 ± 4.911		
Farmer	73.92 ± 7.089		
Artisan/Technician	74.35 ± 3.263		
Civil Servant	75.60 ± 6.569		
Professional	72.68 ± 7.945		
Student	72.62 ± 5.589		
Others	75.23 ± 6.268		
Household size		-1.355[T]	0.178
≤ 5	74.76 ± 5.865		
> 5	76.06 ± 8.004		
Duration in NHIS (in years)		-0.852[T]	0.395
1-6 years	74.78 ± 6.554		
> 6 years	75.33 ± 6.130		
Number of Hospital visits in the last 1 year		1.297[T]	0.196
1-3	75.32 ± 6.592		
> 3	74.47 ± 5.897		
Travel time (in minutes)		-4.063[T]	**< 0.001**
1-23	74.18 ± 6.212		
> 23	76.99 ± 6.309		
Waiting time (in minutes)		-0.718[T]	0.474
1-15 mins	74.82 ± 5.157		
> 15 mins	75.37 ± 8.070		
Have you ever been referred to NHIS facility		1.538[T]	0.128
Yes	76.30 ± 6.960		
No	74.80 ± 6.241		
Willingness to return to NHIS for treatment		3.770[T]	**0.001**
Yes	75.26 ± 6.294		
No	69.80 ± 5.817		
Will you prefer to pay out-of-pocket for the same service at the hospital		-0.605[T]	0.546
Yes	74.59 ± 6.170		
No	75.11 ± 6.409		
If you were to contribute from your monthly income to NHIS, are you willing to		1.010[T]	0.314
Yes	75.54 ± 6.266		
No	74.82 ± 6.405		

[F]: ANOVA, [T]: independent student-t-test

Table 5 shows the predictors of patient satisfaction scores. Patients with travel time of more than 23 minutes travel time had about a 0.18 increase in their satisfaction score than patients with lesser travel time after controlling for other variables (B = 0.175; 95% CI = 1.065 – 3.796). Also, patients who are unwilling to return to NHIS for treatment had about a 0.16 decrease in their satisfaction score than those willing to return to NHIS for treatment after controlling for other variables (B = -0.159; 95% CI = -7.979 – -1.965). Other variables were not significant predictors of patient satisfaction.

Table 5: Multiple linear regression analysis showing predictors of patient satisfaction

Variable	Standardized Beta-coefficients	p-value	95.0% Confidence Interval for Beta-coefficient	
			Lower Bound	Lower Bound
Tribe				
Yoruba (Reference)				
All others	-0.030	0.547	-2.016	1.070
Main occupation				
Civil Servant (Reference)				
All others	-0.088	0.078	-2.417	0.130
Household size				
≤ 5 (Reference)				
> 5	0.061	0.218	-0.574	2.503
Number of Hospital visits in the last 1 year				
1-3 (Reference)				
> 3	-0.073	0.139	-2.278	0.318
Travel time (in minutes)				
1-23 (Reference)				
> 23	0.175	**0.001**	1.065	3.796
Have you ever been referred to NHIS facility				
Yes (Reference)				
No	-0.038	0.456	-2.465	1.108
Willingness to return to NHIS for treatment				
Yes (Reference)				
No	-0.159	**0.001**	-7.979	-1.965

Discussion

This study showed a high level of satisfaction with the NHIS clinic services with a satisfaction score of 75.02. Previous studies done in Minna reported an overall satisfaction score of 75.8% [21]; in Enugu 73.1% was reported [16]; a study in Umuahia reported overall score of 66.8% [22]; another study done among 421 NHIS enrollees in Keffi reported a score of 63.1% [7]. Likewise, the high rate of satisfaction with services within NHIS clinic reported in our study agrees with other international studies including a study done in Ghana, in Romania and in South Korea also corroborated high overall patient satisfaction score [23-25]. Interestingly, satisfied patients were more likely to comply with treatment, keep follow up appointments, and utilize healthcare services [9,10].

This study also revealed that the interpersonal domain, which expresses the friendly and courteous way healthcare providers render services to patients, is the best performer with a score of 79.6. This domain embodies the dignity of patients and is regarded as an important component of qualitative healthcare service [26]. Similarly, in keeping with previous studies patients also contentedly rated this domain highest [16,27-28]. Hence, the discovery of this study shows that patients had favorable experiences and were treated with respect by healthcare providers at the NHIS clinic at Federal Teaching Hospital, Ido-Ekiti. Furthermore, the communication domain in this study earns a high performing score of 78.5. This is consistent with findings of previous studies [26,29,30]. However, a previous study in Zaria reported patient's displeasure with the domain. The study opined that healthcare providers did not listen with adequate concern about their illness and not always availing them enough chance to ask to follow up

questions [31]. This could be explained by the differences in the level of education of our respondents and the Zaria study.

The association between patient satisfaction levels and readiness to return to the clinic for treatments was statistically significant (p = 0.001). This finding is in keeping with a study among 163 patients at Viettiep hospital, Haiphong city, Vietnam where there was significant association between the willingness to return for future rehabilitation and patient's satisfaction especially with the accessibility, equipment and infrastructure, quality of care and treatment and cost of treatment [32]. Additionally, our finding agrees with another study done to determine the relationship between ambulatory patient's satisfaction with care and their willingness to adhere to the surgeons' recommendations in the surgical outpatient clinic of the University College Hospital, Ibadan. Significant relationship also existed with willingness to accept follow-up visits (p = 0.002), drug prescription (p <0.001), and further investigation (p <0.001) [33]. This is not unexpected as our study also reported high score domains of accessibility & convenience (75.3) and technical quality (74.1) respectively which strongly supports the readiness of patients to return to our NHIS clinic.

The study revealed a significant association between longer travel time and satisfaction ratings (p < 0.001). The correlation between shorter journey times and higher satisfaction levels emphasizes how accessibility affects patient experiences, as reported in previous studies which shows that patient satisfaction is positively impacted by greater accessibility to healthcare [34-37]. This study revealed that more than two-thirds of respondents reportedly travelled between 1 and 23 minutes to the clinic, implying good geographical accessibility of healthcare services, since the majority of the clients were also staff of the hospital. However, we recorded higher satisfaction levels with those who travel longer distances. The reason for this disparity may be that those who travel longer distance, who apparently are not staff of the hospital, value the health care services more.

The study assessed the relationship between satisfaction levels and sociodemographic and other independent variables showing that age, sex, education, marital status, religion, number of hospital visits, waiting period, referral history, length of time in NHIS, preference for paying out-of-pocket, willingness to contribute to NHIS, and waiting time do not significantly affect satisfaction scores (p > 0.05). This suggests that, in the context of the NHIS clinic, patient satisfaction is not greatly impacted by these conventional demographic characteristics [38]. While these findings emphasize the context-specific nature of the factors that influence patient satisfaction, they are in line with certain previous studies [39-41]. These findings also resonate with previous studies' findings on the differences in the impact of sociodemographic factors on satisfaction levels in different healthcare settings [42-45]. Understanding these intricacies is essential to tailoring treatments to the unique needs and expectations of the NHIS clinic's patient population [46]. The strength of this study is in the sample size which is good enough to make the statistical assumptions and analysis conducted in the study. However, this is a single center study and, therefore should be generalized with caution.

Conclusion and Recommendations

This study found a high level of satisfaction with the quality of healthcare services rendered at the NHIS clinic with domains related to interpersonal and communication ranked highest. Travel time and willingness to return were identified factors significantly associated with patients' satisfaction. Satisfaction rates do not vary across socio-demographic and contextual factors. However, there is the need for the management of NHIS clinics to continuously improve the quality of healthcare services provided.

Based on the findings, effective communication was recognized as the foundation of a good interpersonal relationship between the healthcare providers and the patients and its strong influence on patient's satisfactions, good clinical outcomes and willingness to return for treatment. Therefore, the success of the NHIS operations depends largely on the quality of care provided through an all-inclusive communication approach which allows the patients to seek further clarifications through follow up questions. Targeted interventions like training of healthcare workers, supportive supervision and on-site mentoring and technical assistance will be required to improve health workers' competencies and building their capacity on how to spend quality time informing patients about their diagnosis, the tests ordered and the reasons for ordering the tests while doing these in a polite manner.

Conflict of Interest

The authors have no conflict of interest to declare.

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