



Enrolees Perception of the Merits and Demerits of National Health Insurance Scheme in a Nigerian Tertiary Health Facility

Authors

Alabi A N. FWACP (FM)¹, Onuoha FM FWACP (FM)²,
Madaki AJ. MPH, FWACP (FM)³, Nwajei AI FWACP (FM), FMCGP⁴
Uwakwem AC FWACS⁵, Alabi KM FWACP (FM)⁶

¹Department of Family Medicine, University of Ilorin, Nigeria

²Department of Family Medicine, Federal Medical Centre, Owerri, Nigeria

³Department of Family Medicine, Jos University Teaching Hospital, Jos, Nigeria

⁴Department of Family Medicine, Federal Medical Centre, Asaba, Nigeria

⁵Department of Ophthalmology, Federal Medical Centre, Owerri, Nigeria

⁶Department of Family Medicine, University of Ilorin Teaching Hospital, Ilorin, Nigeria

Corresponding Author

Dr Alabi A.N

Department of Family Medicine, University of Ilorin

Email: toniaalabi2003@yahoo.com, Tel; 08056426318, 08130718279

ABSTRACT

Background: National health insurance schemes (NHIS) are implemented as part of health reform and as strategies aimed at providing effective and efficient health care for the citizenry. This study sought to determine the merits and demerits of the National Health Insurance Scheme (NHIS) in enrolees assessing care in National Health Insurance Clinic, Federal Medical Center, Asaba, South-South, Nigeria.

Materials and Methods: This study was a cross-sectional survey carried out in the National Health Insurance (NHI) Clinic of FMC, Asaba. Simple random sampling was used to recruit respondents into the study. The selected subjects were either principal enrolees or dependants who met the inclusion criteria. Subsequently, the respondents were administered a pretested, well-structured questionnaire by the authors or trained research assistants. Subjects recruited into the study were adult patients aged 18 years and above who met the inclusion criteria.

Results: A total of 350 respondents were recruited into the study with a mean age of 39.8±9.5 years. Majority (60.6%) of the respondents were females and most were resident in Asaba (88.6%). About 99.1% of the respondents felt that the scheme was a good idea/programme and 97.7% of the respondents believed that the scheme has made healthcare more accessible (97.7%) and affordable (96.3%). Furthermore, 99.4% of the respondents agreed that the scheme should be continued and made meaningful recommendations on how to make the scheme more effective.

Conclusion: The study showed that 99.1% of the respondents were satisfied with the scheme. However, both the majority that were satisfied and the infinitesimal percentage that were not satisfied, made meaningful recommendations on how the scheme could be improved upon.

Keywords: ASABA, MERIT, DEMERIT.

INTRODUCTION

Nigeria, like most developing countries is still battling with the problems of universal coverage of health care coupled with gross inequality in its provision¹. Access to healthcare is severely limited as well as inability of the consumers to pay for the services when available. Financing of public health services in Nigeria has been through government subvention funded mainly from earnings from petroleum exports and user fees for patients¹. Decline in funding of healthcare commenced after the mid 1980's following a drastic reduction in revenue generation from oil exports, mounting external debts burden, structural adjustment programme and rapid population growth rate¹. The result as in most other developing countries was a rapid decline in the quality and effectiveness of publicly provided healthcare services¹. As a way out, the government of Nigeria launched the National Health Insurance Scheme (NHIS) in June, 2005 by the then Olusegun Obasanjo's administration.

Health insurance is a social security system that guarantees the provision of the needed health services to persons on the payment of token contributions at regular intervals². The National Health Insurance Scheme (NHIS) is a corporate body established under Act 35 of 1999 constitution by the Federal Government of Nigeria to improve the health of all Nigerians at an affordable cost.² The NHIS Act is the statutory authority for the Scheme's benefit programmes and it also sets the general rules and guidelines for the operation of the Scheme.² The establishment of the Scheme was informed by factors such as the general poor state of the nation's health care services, the excessive dependence and pressure on government-provided health facilities, dwindling funding of health care in the face of rising costs and the poor integration of private health facilities in the nation's health care delivery system². The objectives for establishing the scheme were to ensure that every Nigerian has access to good health care, to protect families from the financial hardship of huge medical bills, to limit the rise in the cost of health care services

and to ensure equitable distribution of health care costs among different income service groups². In order to ensure that these objectives were achieved, the NHIS has developed various programmes to cover different segments of the society. Such programmes include the Formal sector (Public sector -Federal, State, Local Government), Informal sector (Community based social health insurance programme), Vulnerable group (Permanently disabled persons and the Aged) and Others (-Diaspora family and friend, International Travel Health Insurance, Pregnant women and Orphans, retirees and Unemployed)^{3,4}. The Formal Sector Social Health Insurance Programme (FSSHIP) is being implemented in Nigeria for now while the other groups would be brought on board as the present scheme stabilizes. Quality of health services was traditionally based on professional practice standards, however, over the last few decades patients' perception about healthcare has been predominantly accepted as an important indicator for measuring quality of health care and a critical component of performance improvement and clinical effectiveness⁵. Patient satisfaction is a major indicator of quality of care and it is a measure of the extent to which a patient is contented with the health care which he/she received from a health care provider⁶. It simply means the perception of care received compared with the care expected.⁵ Patient satisfaction with health care is important because of the following factors: (a) It influences patients' health seeking behaviour, (b) it is an indicator of long term viability and success and finally, it has been proven that satisfied patients are more compliant with doctors' recommendations on medical treatment, suitable use of health care resources and early recovery from diseases.⁷ Attention should therefore be given to establish health services according to patient's satisfaction rather than just treating the diseases. The major barriers in the patient satisfaction are lack of doctor - patient interpersonal communication, poor health workers behaviour, inadequately equipped facilities and unavailability of adequate services while the main hindrance to better health care for

the people living in developing countries is lack of access to essential health care⁷. Other reasons are prolong waiting time, unaffordable treatment cost and inadequate laboratory facilities⁷. Along with this, patient personality also has an effect as older patients and those who are less educated appear to be more satisfied with services provided.⁷

There are many factors that influence patients' perceived level of satisfaction with a health care provider. Such factors include the duration and efficiency of care and how empathetic and communicative the health care providers are during patients' interaction.⁵ Level of satisfaction is favoured by a good doctor-patient relationship. Also, patients who are well-informed of the necessary procedures in a clinical encounter, and the time it is expected to take, are generally more satisfied than others even if there is a longer waiting time.⁵

Several studies have tried to determine the level of patients' satisfaction in different NHI clinics in different parts of Nigeria with varying outcomes. One of such studies was done by Iloh et al. in Federal Medical Centre (FMC), Umuahia, Abia State, South East Nigeria. The study showed an overall satisfaction score of 66.8% amongst the study population⁸. Specifically, the respondents expressed satisfaction with patient-provider relationship (81.5%), patient-provider communication (79.9%), accessibility (74.2%), and hospital environment (68.2%)⁸. Nevertheless, dissatisfaction with hospital bureaucracy (48.8%) and prolong waiting time (48.3%) were expressed amongst the respondents⁸. A similar study conducted at the NHI Clinic in Barau Dikko Specialist Hospital Kaduna, North West Nigeria, showed an overall level of satisfaction at the facility as 41%.⁹ This low level of satisfaction was however attributed to the patients' low knowledge of the rudimentary principles of the scheme.⁹ Clients' satisfaction in certain domains and dissatisfaction in others were also characteristic of the findings from a similar study done in South West Nigeria by Osungbade et al. at Ibadan.¹⁰

Enhancing the quality of health care delivery in public health facilities in developing countries is a

key prerequisite to increased utilization and sustainability of health care services by the populace in such countries. This explains why a study aimed at assessing the clients' perceived fulfilment with the NHIS set objectives is very pertinent at this time in Federal Medical Centre, Asaba, South South Nigeria, where the scheme effectively commenced in 2006 and has since then witnessed a tremendous progress in terms of organization, service delivery and number of registered enrolees. Furthermore, the policy implementation of the out-come of this study would improve the quality of care given to National Health Insurance clients/patients.

MATERIALS AND METHODS

The study was a cross sectional descriptive survey involving NHI (National Health Insurance) enrolees who presented at the NHI Clinic in FMC, Asaba between September 2012 and March 2013. A total of 350 consenting respondents aged 18 years and above were selected by simple random sampling. The aim of the study was to identify the merits and demerits of NHIS in the centre, while the specific objectives were; (a) To determine the respondents' perceived satisfaction with the scheme as offered in the centre in terms of its affordability, availability and accessibility as well as (b) the patients' overall satisfaction with the care provided at the NHI clinic of FMC, Asaba.

Data collection was done by the use of interviewer administered semi-structured questionnaire which had two sections. The first section sought information on socio-demographic variables of the respondents such as age, sex, place of residence, marital status, type of marriage, respondents' occupation and the highest level of educational attainment. The principal enrolees were grouped into different occupational groups using the Oyedeji's classification. This classification is as shown below.¹¹

Socio- economic Classification Scheme by Oyedeji for Occupation.

Class Occupation

I. Senior public servants, professionals, managers, large scale traders, business-men, contractors and senior military officers.

II. Intermediate grade public servants, senior school teachers and non-academic professionals (Nurses, owners of medium sized business, secretaries).

III. Non-manual skilled workers including clerks, typists, junior school teachers, drivers, artisans and telephone operators,

IV. Petty traders, labourers, messengers and lower cadre civil servants.

V. Unemployed, full-time house wives, students and subsistent farmers.

Section two sought to elucidate among other things, respondents' perception of NHIS; how accessible and affordable the scheme was to them. In addition, this section sought to identify if they encountered any problem in the NHI Clinic and if yes, at what point/unit. Respondents also made recommendations on how the scheme could be improved upon.

Data Analysis

The data was analyzed using the Epidemiological information (Epi-info) software package. Data presentation was done with the use of tables and charts drawn using Excel software package.

Ethical issues

Ethical clearance certificate was obtained from the Ethics and Research Committee of FMC, Asaba. Anonymity was strictly assured as names were not required at any stage of the study. Though the respondents were encouraged to complete the study, they were also made to understand that they had the right to withdraw from the study any time they wished to do so. Enrolees that declined to participate in the study were made to understand that their refusal would not affect their subsequent care.

RESULTS

A total of 350 respondents aged 18 years and above were recruited into the study. The mean age of the respondents was 39.8 ± 9.5 years. As shown in Table I (socio-demographic characteristics of the respondents), most of the respondents were aged 28 to 37 years. The extremes of ages had a lower frequency of representation. There were more females (60.6%) than males (39.4%). The male female ratio was 1:1.5 and most of the respondents were married (85.4%).

The study population was composed of mainly Christians (98.9%) and those that were resident in Asaba (88.6%). In relation to educational level and occupational status, it was observed that majority of the respondents attained tertiary education (76.9%) and belonged to occupational group 2 (76.6%).

Figure I showed that almost all the respondents (99.1%) perceived that the scheme was a good idea while figures 2 and 3 showed that majority of the respondents were convinced that the scheme had achieved its set objectives of making healthcare more accessible (97.7%) and more affordable (96.3%).

As shown in Table 2, 90.6% of the respondents were satisfied with the scheme while 99.4% desired that it would continue. Majority of the respondents (94.6%) reported that they received prompt attention from healthcare providers while 31.6% and 26.3% of those who did not receive prompt attention gave bureaucracy and lateness to work by staff of NHI Clinics respectively as reasons for the delay in accessing care. In addition, 41.4% of the subjects admitted encountering problems at the NHI Clinic in FMC Asaba. It was also observed that most of the problems encountered were from the pharmacy unit (41.4%).

Table 3 showed recommendations made by the respondents on ways to improve health care received from the scheme; 41.4% recommended that more drugs should be provided for the effective implementation of the scheme while 34.0% recommended that the government should continue with the scheme in its present form.

Table 1: Socio-demographic Characteristics of the Respondents

	Frequency	Percentage
AGE (yrs)		
18-27	16	4.6
28-37	143	40.9
38-47	116	33.1
48-57	57	16.3
58-67	16	4.6
68-77	2	0.6
SEX		
Male	138	39.4
Female	212	60.6
PLACE OF RESIDENCE		
Asaba	310	88.6
Other towns in Delta state	32	9.1
Outside Delta State	8	2.3
MARRITAL STATUS		
Single	42	12.0
Married	299	85.4
Divorced	3	0.9
Separated	2	0.6
Single parents	4	1.1
RELIGION		
Christianity	346	98.9
Islam	3	0.9
Others	1	0.3
OCCUPATIONAL GROUP		
Group 1	54	15.3
Group 2	268	76.6
Group 3	10	2.9
Group 4	8	2.3
Group 5	10	2.9
EDUCATIONAL LEVEL		
No formal education	2	0.6
Primary School education	13	3.7
Secondary school education	46	13.1
Tertiary education	269	76.9
Others	20	5.7

Table 1 showed that most of the respondents were within the age group of 28-37 years (40.9%). There were more females (60.6%) than males (39.4%). With respect to place of residence, most of the respondents resided in Asaba (88.6%). The married group was equally more in frequency (85.4%). Christianity and tertiary educational attainment were also more in representation while most of the enrolees belonged to occupational group 2 when the occupational group of the enrolees was considered.

Figure 1: Respondents' Perception of the scheme

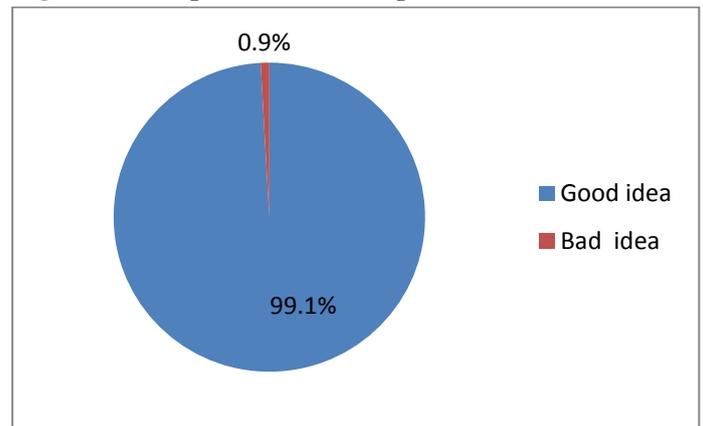


Fig 1 showed the Respondents' perception of NHIS.

Figure 2: Respondents' perception of the accessibility of the scheme

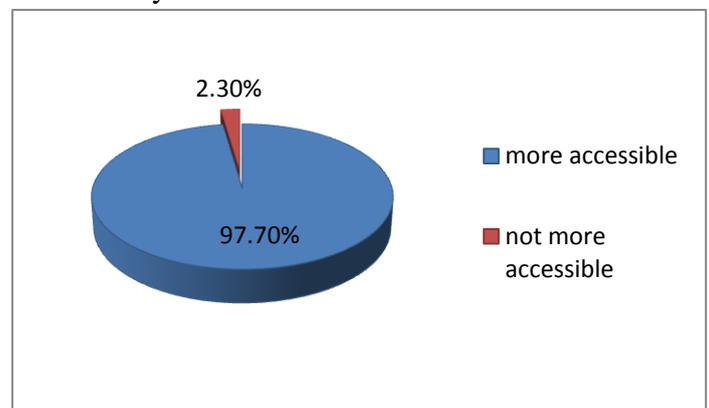


Figure 2 showed the Respondents' perception of how accessible the scheme has made healthcare.

Figure 3: Respondents' Perception of the affordability of the scheme

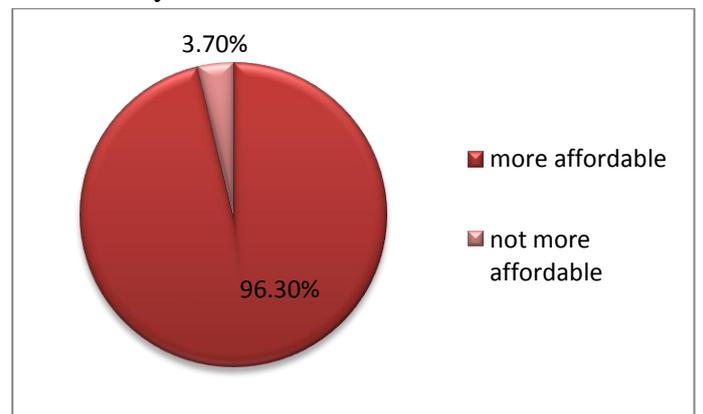


Figure 3 showed the Respondents' perception of how affordable the scheme was to the users.

Table 2: Respondents' encounter experience at the NHIS clinic

Encounter experience at the NHI clinic	Frequency	Percentage
Prompt attention		
Yes	331	94.6
No	19	5.4
Why No Prompt Attention?		
Lateness by hospital workers	5	26.3
Workers too slow	4	21.1
Large patient turnout	2	10.5
Bureaucracy	6	31.6
Don't know	2	10.5
Satisfaction with scheme		
Yes	317	90.6
No	33	9.4
Scheme to continue		
Yes	348	99.4
No	2	0.6
Had problems in NHI clinic		
Yes	145	41.4
No	205	58.6
Level of problem		
Medical records unit	20	13.8
Nurses' unit	9	6.2
Doctors' clinic	23	15.9
Pharmacy unit	60	41.4
Laboratory unit	23	15.9
Radiology unit	10	6.8

Table 2 showed that most of the participants received prompt attention at the NHI Clinic (94.6%). However, majority of those who did not receive prompt attention at the clinic gave bureaucracy as the main reason for the delay in accessing care (31.6%). Further observation revealed that most of the participants were satisfied with the scheme (90.6%) while almost all the participants wanted the scheme to continue (99.4%). Less than half (41.4%) of the respondents encountered one problem or the other at various units (especially at the pharmacy unit).

Table 3: Recommendations by the Respondents on how to improve on the scheme

Recommendation	Frequency	Percentage
Adding more drugs in the drug list	145	41.4
Expanding the scope of services	8	2.3
'Continuing the good work'	119	34.0
Improvement in the facility	9	2.6
Extension of the scheme	17	4.9
Increased funding by FGN	12	3.4
Improve monitoring by HMO	8	2.3
Improvement in staff attitude	32	9.1

One hundred and Forty-five respondents (41.4%) recommended that the Federal Government of Nigeria (FGN) should increase the variety of drugs covered by the scheme and should also ensure that the drugs are readily available at all times. However, 34.0% of the respondents felt the scheme was doing very well and should be continued in its present form.

DISCUSSION

Proper and effective implementation of the National Health Insurance Scheme is a sine qua non to an efficient and vibrant health care delivery in Nigeria. This study revealed that 40.9% of the respondents fell within the age group of 28-37 years while the mean age of the studied population was 39.8 ± 9.5 years. The above observation is in tandem with the age range employed in other similar studies^{9,12,18} and it further implies that majority of the respondents who participated in the study belonged to the working class group. The formal sector programme is the only scheme that is presently operational in Nigeria and it specified that contributions made by an insured person entitles him/her, a spouse and four biological children under the age of 18 years to a defined scheme whereby the healthcare of an employee is paid from funds created by pooling the contributions of employees and or employers. Currently, only the public sector is benefitting from this scheme.⁹

A female preponderance in the ratio of 1.5:1 observed from the index study is a reflection of an appreciable more health seeking behaviour by females than males. The female preponderance is equally consistent with findings from studies conducted in Mina¹⁹ and other study sites.⁹ However, similar studies conducted at Enugu, South East Nigeria and Oyo, South West Nigeria revealed a contrasting finding as 51.6% and 67.5% respectively of the study populations were males.¹⁹ It was also not surprising to note that most of the respondents had tertiary education and fell within the group 2 occupational status in accordance with the modified Oyedeji's classification as the respondents were mainly

Federal public servants working in different ministries, parastatals and agencies. Further observation revealed that a total of 347 (99.1%) respondents admitted that the scheme was a good idea. This translated to a high level of self perceived impact of the scheme in terms of achieving its objectives of making healthcare more accessible (97.7%) and more affordable (96.3%). It also reflected in their self perceived level of satisfaction with the scheme (90.6%). The above findings are consistent with the outcome of similar studies that revealed a high level of satisfaction with the scheme, though, not as high as what was obtained from the index study^{12,14}. The disparity in the levels of satisfaction could be attributed to the non-utilization of any standard tool/scale of assessment of satisfaction in this study. The exponentially high level of satisfaction recorded from this study (90.6%) might also be attributed to the afore-mentioned reason. It should be noted that none of the popular tools for assessment of patients' level of satisfaction has all the indices for a comprehensive assessment of the scheme. For instance, none of the tools considered the availability and variety of drugs in the NHIS drug list. The two commonly used tools are the Composite Index²⁰ and the Five-point Likert scale.²¹ The Composite Index considers the receipt of courteous attention at the hospital, the receipt of a better health care, the availability of doctors and nurses throughout the hospital visit, the frequency of hospital visits and finally the preference for health insurance in the participants' own neighbourhood. A total score of ≤ 3 signifies less satisfaction whereas a cumulative score of ≥ 3 indicates good satisfaction. Similarly, the 5-point Likert scale has a total of 5 items and the items are; patients' waiting time, patient-staff communication, patient-staff relationship/ cost of care and finally hospital bureaucracy / hospital environment. Operationally, patients who scored ≥ 3 points are assessed as being satisfied whereas a total score of ≥ 3 is considered to be dissatisfied. However, in the Likert scale, the scores range from 1-5 depending on the level of satisfaction.

Though this study reported a high level of satisfaction amongst the target population, nevertheless, some similar studies reported a contrary finding of dissatisfaction amongst enrollees assessing care in other study locations.^{13,16} For instance, a study by Idah et al conducted amongst staff of Kogi State Polytechnic, Nigeria reported that the National Health Insurance Scheme did not improve the health status of the registered members of the scheme through better health care and in view of the above observation majority of the staff were dissatisfied with the scheme.¹³ Another study by R.A Sanusi and Awe on NHIS consumers in Oyo State, Nigeria equally recorded a low level of satisfaction amongst the study population.¹⁶ However, the Sanusi study was done at the inception of the scheme when most consumers were still sceptical about the benefits of the scheme and had little knowledge of its operational sequence and benefits. Despite the high level of dissatisfaction reported by the above cited studies, all the respondents vehemently supported the idea that the scheme should not be scrapped but should be improved. This could also explain the wish of almost all the enrollees at Asaba, Nigeria (99.4%) that the scheme should continue. Most of the respondents (94.6%) also admitted that they received very prompt attention from healthcare providers at the centre. However, the few who reported a delay gave various reasons such as hospital bureaucracy at the NHIS office (31.6%), lateness to work by workers (26.3%), and large patients' turnout (10.5%) among others as reasons for the delay. Large patient turn-out is often associated with prolonged waiting time. For instance, Onuoha¹⁷ and co-workers while working on mean waiting time and its relationship with patients' satisfaction in Federal Medical Center, Owerri, South East Nigeria reported a high patient load at the centre and subsequently attributed this factor as a major cause of prolonged waiting time. The mean waiting time obtained from Owerri study (83.6 minutes \pm 1.6) was far higher than the SERVICOM (Service Compact for all Nigerians) recommended waiting time of

45minutes for Nigerian hospitals and served as a major factor in the respondents' overall level of dissatisfaction with the services.¹⁷ The causes of patients/enrolees dissatisfaction should be quickly addressed. National Health Insurance accredited facilities should ensure that their clients are well treated, otherwise, they might loose their patronage as it is recommended that after six months of assessing care from a health facility the enrolees are at liberty to change their primary care providers if not satisfied with the services received. Service providers should try as much as possible to reduce the bureaucracies associated with NHIS by training and retraining of staff. Health workers should also improve on their commitment to work and patients' care. In other to address the issue of prolong waiting time arising from large patient turnout, a separate National Health Insurance complex should be built to accommodate the desk officers, the laboratory unit, consulting rooms, medical records, dressing /injection rooms, theatre, wards and the nurses' stations.

Further evaluation of the results showed that approximately half of the study population (41.4%) admitted to having encountered problems at various levels of service deliveries at the centre. The units at which problems were encountered by the respondents were the Pharmacy (41.4%), Doctors' clinic (15.9%), Laboratory (15.9%), Medical records (13.8%), Radiology (6.8%) and Nursing services (6.2%). The problems encountered as at the time this study was conducted included the unavailability of prescribed drugs, lateness to work by NHIS staff, unfriendly attitude by hospital workers (especially record officers and doctors), and exclusion of expensive but necessary investigations from the NHI list at the primary care level. Respondents also made recommendations on how health care services could be improved. Some suggested that more drugs (if not all drugs) should be included in the NHI drug list at the primary care level. This is very pertinent as it has been established that the scheme has no provision for very expensive drugs at the primary and secondary care levels. The net

effect of this is that only the available drugs are dispensed to the patients with little or no emphasis on their potency, efficacy and absolute disregard to the principles of rational drug prescription and evidence based practice. The stakeholders of the scheme need to understand that if this practice continues unabated it could negate the good intentions of the Federal Government of Nigeria in establishing the scheme. More so, the objective of bridging the inadequacies in healthcare delivery in the country would not be achieved.

Though 34% of the respondents were convinced that the establishment of the scheme was a great achievement by the FGN and advised that the scheme should continue in its present form, others made additional recommendations such as expanding the scope of the services at the primary level by incorporating more radiological investigations and surgical procedures into the scheme. They also recommended for the expansion of the coverage of the Formal Sector programme to cater for more than four children and offspring that are greater than eighteen years of age. They further suggested that for effective health care delivery, the Health Maintenance Officers (HMOs) should actively monitor the scheme and that Federal Government of Nigeria should ensure adequate funding of the NHIS.

LIMITATION OF THE STUDY

The major limitation of this study was the non-utilization of any of the standard tools for the assessment of level of satisfaction. This reflected in the exponential level of satisfaction recorded from the study.

CONCLUSION

The present study has shown that the operations of the National Health Insurance Scheme in Federal Medical Center, Asaba, Nigeria was rated with a high level of client satisfaction. The few problems identified by the respondents should be properly addressed in line with the enrolees' recommendations.

CONFLICT OF INTEREST

We declare that we had no financial or personal relationship (s) which inappropriately influenced the writing of this paper.

REFERENCES

- Okaro A.O, Ohagwu C.C, Njoku J. Awareness and Perception of National Health Insurance Scheme (NHIS) Among Radiographers in South East Nigeria .American Journal of Scientific Research ISSN 1450-223X Issue 8(2010), pp.18-25
- National Health Insurance Scheme Handbook [Online]. Available from: <http://www.nhis.gov.ng/>. [Accessed June. 2016].
- National Health Insurance Scheme Decree No 35 of 1999 Law of the Federation of Nigeria made at Abuja on the 10th May 1999.
- NHIS Guideline National Health Insurance scheme. [Online]. Available from: <http://www.nhis.gov.ng/>. [Accessed June. 2016].
- Tahir Ahmed, Nega Asefa, Asrat Demisie and Abera Kenay; Levels of Adult patient's Satisfaction with nursing in selected Public Hospitals in Ethiopia. International journal of Health Sciences. Vol 8 Number 4 (2014)
- Wikipedia contributors. Patient satisfaction [Internet]. Wikipedia, The Free Encyclopedia; 2016 Sep 30, 06:21 UTC [cited 2017 Mar 25]. Available from: https://en.wikipedia.org/w/index.php?title=Patient_satisfaction&oldid=741876981.
- Ahmed F, Yasir I, Hameed K, Ahmed S, Ahmed W, Maroof et al; Assessment of OPD Patients Satisfaction with Healthcare Services at Al-Nafees Medical Hospital. ISRA medical journal vol7 issue 3(2015)
- Iloh G.U et al. Evaluation of patients' satisfaction with quality of care provided at the National Health Insurance Scheme clinic of a tertiary hospital in South-Eastern Nigeria. Niger J Clin Pract. 2012 Oct-Dec;15(4):469-74.
- Salawudeen, S.A .Assessment of Clients' Satisfaction and Quality of Outpatient Care under the National Health Insurance Scheme at Barau Dikko Specialist Hospital kaduna, Kaduna state, Nigeria
- Kayode O. Osungbade, Taiwo A. Obembe and Abidemi O. Users' Satisfaction with Services Provided Under National Health Insurance Scheme in South Western Nigeria International Journal of TROPICAL DISEASE & Health, 4(5): 595-607, 2014
- Oyedeji GA. Socioeconomic and cultural background of hospitalized children in Ilesha Nigeria. Journal of Paediatrics 1985; 12:111-7.
- OwumI, Bernard, Omorogbe, Christie, and, Raphae L, Sunday. An evaluation of the impacts of the national Health scheme on the employees' health status at the University of Ibadan. African Journal of Social Sciences Volume 3 Number 3 (2013) 40-52
- Agba M.S. Perceived Impact of the National Health Insurance Schemes (NHIS) Among Registered Staff in Federal Polytechnic, Idah, Kogi State Nigeria Studies in Sociology of Science Vol. 1, No. 1, 2010, pp. 44-49
- Khamis K, Njau B. Patients' level of satisfaction on quality of health care at Mwananyamala hospital in Dar es Salaam, Tanzania. BMC Health Serv Res 2014,14:400
- Ama P. F, Ulrika E, Felix A & Kristian S. Patient Satisfaction with Primary Health Care – A Comparison between the Insured and Non-Insured under the National Health Insurance Policy in Ghana. Global Journal of Health Science; Vol. 6, No. 4; 2014
- R.A. Sanusi and A.T. Awe, 2009. Perception of National Health Insurance Scheme (NHIS) by Health Care

- Consumers in Oyo State, Nigeria. Pakistan Journal of Social Sciences, 6: 48-53
17. FM Onuoha, AC Uwakwem, JI Egwim .Mean Waiting Time and Patients' Satisfaction in GOPD, Federal Medical Centre, Owerri. Nigerian Journal of Family Prac. Nov,2013; 4(2):13-18
 18. Ofili AN, Ofovwe CE. Patients' assessment of efficiency of services at a teaching hospital in a developing country. Annals of African Medicine, 2005;4:150-153
 19. Shafiu M, Mohammed N, Hengin D. Understanding clients satisfaction with a health insurance scheme in Nigeria; factors and enrolees experience. BioMed Central, Published on line, 25th May, 2011
 20. Iloh GU, Ofoedu JN, Njoku PU, Okafor GO, Amadi AN, Godswill-Uko EU. Satisfaction with the quality of care received by patients without National Health Insurance attending a Primary Care Clinic in a resource-poor environment of a tertiary hospital in Eastern Nigeria in the era of scaling up the Nigerian formal sector health insurance scheme. Annals of Medical and Health Sciences Research, Jan-Mar,2013;3(1):31-37
 21. Philip AD, Alexander SL. The National Health Insurance Scheme: perceptions and experiences of health care providers and clients in two districts of Ghana. Published on-line 23th July, 2012. Accessed 14th April, 2017