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Enrollees' awareness and attitudes toward the provision and utilization of NHIS services at a federal healthcare facility in Niger State, Nigeria

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Abstract

Background: Awareness and acceptability of health insurance services by enrollees is critical for improved utilization and access to health care in order to achieve desired objectives. Hence, assessing enrollees' level of awareness and attitude towards the National Health Insurance Scheme (NHIS) services in Nigeria is necessary for understanding their acceptability and extent of utilization to inform policy for improved performance. This study aimed to assess the knowledge, attitude and utilization of the NHIS services by the employees of a Federal healthcare facility in Niger State, North Central Nigeria.

Method: A descriptive cross-sectional survey of 308 employees of the Federal Medical Center (FMC) Bida, who are enrolled in the NHIS as federal staff, was undertaken. A semi-structured questionnaire was developed to collect relevant information on the knowledge and attitudes of the employees towards the scheme, while facility records were reviewed to obtain information on available packages and utilization rates. Data was collected and analyzed using SPSS 23.0.

Results: All the respondents (100%) indicated some level of awareness about the NHIS but less than 50% had adequate knowledge regarding the guiding principles. A greater percentage of (81.5%) revealed positive perceptions towards the scheme. However, this did not reflect in the level of utilization of NHIS services as only 22.8% of the respondents appeared to have utilized the services on a regular basis. Key challenges experienced by respondents while accessing care include out-of-stock syndrome for most medications, lack of quality medications and services, as well as high incidence of out-of-pocket payments.

Conclusion: Findings suggest poor utilization of the NHIS services among enrollees in the facility informed mostly by their inadequate knowledge of the scheme, in addition to challenges encountered in the course of receiving care, such as poor availability of medicines, high OOP payments among others. There is need for enhanced education of the employees regarding NHIS services and improved provision of basic services to enhance efficiency of the scheme.

Keywords: Knowledge, Awareness, Perception, Utilization, Healthcare, NHIS

Introduction

In recognition of the challenges of the healthcare system limiting access to care due mainly to affordability and poor funding, Nigeria introduced many reforms which included the introduction of the social health insurance scheme (NHIS) in 1999, as a health financing mechanism. The insurance system has since become a preferred choice of many systems for sustainable health financing due to its many positive features that promote and support achievement of the Universal Health Coverage (UHC) goals for enhanced population health. Efforts at addressing poor health indices in Nigeria such as high child and maternal mortality rates, poor healthcare services, high out-of-pocket payments informed the establishment of the Scheme .[1] Hence, the scheme was aimed among others to improve access to quality, affordable and sustainable health care for the citizens, to reduce the financial burden of OOP payments which has remained very high above 70% .[1] As a contributory scheme, beneficiaries were to pay 15% of their salary to the scheme; but the government took 10% of the payment leaving 5% to the beneficiaries to pay. The NHIS cover only about 4-5% of Nigerians in the formal sector [2]. The contributions of NHIS to health funds remain low at about 2% of overall expenditure on health and also challenged by low acceptance, poor awareness, and limited benefit packages .[3]

Since the launch of the NHIS in 2005, it has recorded its success and challenges .[4]Coverage remains low at only about 4% of the Nigerian population, mostly in the formal sector .[5,6,7] This could be attributed mainly to voluntary rather than compulsory enrolment as practiced in some countries such as Ghana [8]. At the launch of the Scheme in 2005, Nigeria set a target of achieving UHC by the year 2015, which obviously was not achieved but was extended to 2025. This however remains uncertain going by the current poor enrollment progress.

Availability of a service does not guarantee its utilization [9, 10]; neither does awareness of a programme translate to knowledge about a programme. Hornby [11] describes knowledge as "information, understanding and skills that one gains through education or experience." In this study, knowledge denotes adequate understanding and information possessed by enrollees regarding NHIS, its objectives and guiding principles. Awareness of a policy such as NHIS strongly impacts on perception of individuals toward the policy and ultimately utilization. Studies have shown that awareness can enhance individuals' knowledge of existing beneficial social policies and improve enrolment in any prepayment scheme for health. [12] Studies in Nigeria suggest that current level of awareness about the NHIS in Nigeria is low. [13,14] Beside awareness, the quality of services rendered to enrollees and their level of satisfaction is of optimal importance. The out-of-stock (OS) syndrome and limited benefit packages encourage OOP payments, limiting utilization of services which impact negatively on the decision of potential enrollees.

The NHIS is expected to reach its peak in delivering effective and quality services due to its small target population of only the employees of the federal government in the first instance, as the formal sector health insurance (FSHIS).However, this has not been the case as many enrolees are still forced to pay out-of-pocket for healthcare. Although, there are few reports on the effectiveness of NHIS and client satisfaction,

such data are lacking in Niger State. Lack of information on the issues outlined above will make it difficult to evaluate NHIS services and its performance among accredited health facilities such as Federal Medical Center, Bida. It will also be difficult for relevant authorities to properly track progress of the scheme with enrolment to ensure the achievement of its goal towards UHC, especially in the northern part of the country. Consumers of the healthcare services should have adequate knowledge of the scheme and its benefits so as to enhance optimal use. Poor knowledge and awareness about the scheme will lead to underutilization of the services. Therefore, the success of the scheme would be greatly determined by its acceptability which is dependent on the level of knowledge and awareness. It becomes pertinent to investigate awareness, perception and utilization of the scheme by employees. This study aimed to investigate enrollees' awareness, perception, and utilization of the NHIS services among employees of the FMC, Bida, Niger state, north central Nigeria, who are automatically enrolled as federal staff. The study findings will contribute information on factors that constitute barriers to efforts at enhancing access to healthcare through the NHIS, to inform policy for improved performance of the scheme.

Methods

Study area

This study was carried out in Bida town, Bida Local Government Area of Niger State. Niger state is the largest state in Nigeria by area (76,363km^2) with Minna as the seat of government. Other major cities are Bida, Kotangora, and Suleja. It is located in the North-Central Region of Nigeria and bounded by Kaduna state and Federal Capital Territory, Abuja in the East and South- east respectively, Kebbi and Zamfara in the North; Kwara and Kogi States in the South and Benin Republic in the West. It has total of 25 LGAs. Bida is the second largest city in Niger state with an estimated population of 178,840 in 2007 according to 2006 census. It is located south-west of Minna. The town comprises of individuals of diverse background and ethnic groups; dominated by Nupe indigenes. Hence, headquarter of the Nupe Kingdom led by the Estu Nupe. The town is known for its Durban festival and production of traditional crafts. It has an Urban-Rural setting with high poverty rate among the indigenes. Agricultural activities form the mainstay of the people's economy majoring in Paddy rice, yam, cassava, sorghum, millet, sugarcane, peanuts, and Shea nuts among others. The public formal sector institutions in the town are the Local government service commission, State parastatal, as well as Federal civil service and parastatal.

Study site and population

Federal Medical Center, Bida is located at No 4 Efu Etsu Yisa Street Bida, Bida LGA of Niger State. The facility has two outposts; the Comprehensive Health Centre, Zungeru and Family Medical Practice Centre, Gawu Babangida. It is a tertiary health care facility that provides services ranging from paediatrics care, diagnostics services, obstetrics and gynaecology treatments, internal medicine, orthopedic care, among others. The institution has about 2000 employees which include doctors, pharmacists, nurses, and other health professionals and administrative staff. The facility has a total of 200 in-patient beds in its 13 wards. It is accredited by NHIS as service provider.

Study design and sampling

A descriptive cross-sectional survey involving employees of Federal Medical Center was conducted to investigate their knowledge and attitudes towards the utilization of the NHIS services in the center, and factors affecting utilization of the scheme in the facility. A pre-tested semi-structured questionnaire was developed to collect relevant information from the selected respondents/staff. Facility records of the participants were also reviewed to collect and compliment information on available services and utilization levels. The sample population consisted of Federal civil servants working at the FMC Bida, Niger State.

The sample size was derived using the Taro Yamane formula: n= N/1+N (e^2).
Where n is the sample size, N is total number of employees, and e is the sampling error (constant=0.05).[15] Sample size (n) = 1332/1+1332(0.05^2) = 307.6. Therefore 308 employees were used for the study, adjusted by 10% to account for attrition

The number of staff was obtained from the Administrative Department (Human Resource). Stratified random sampling technique was used to recruit respondents from all departments to ensure full representation. Criteria for inclusion include willingness to participate in the study, availability at the time of study, and an employee of the facility, FMC, Bida (excluding house officers and interns).

Validity and reliability of the instrument

The research instrument was submitted to the project supervisor, a lecturer in the department of Health Administration and Management, University of Nigeria, Enugu campus, and the Health Research and Ethics committee of Federal Medical Center Bida, for face and content validity. Their corrections, suggestions, and observations were effected before the printing of the final copy of the research instrument.
The tool was pretested among 31employee civil servants of Federal Polytechnic, Bida , representing 10% of the sample size. Data collected were computed using split half technique. A Cronbach Alpha Value of (x=0.801) was obtained which indicates reliability of the test instrument.

Data collection

Quantitative approach informed data collection process. A well-structured self-administered questionnaire which reflected the study objectives and reviewed literatures was used to collect relevant information from the respondents. The questionnaire had 41 items which was divided into 4 sections (A, B, C, and D). Section A was used to collect information on socio-demographic data; age, gender, marital status, highest educational qualification, ethnic group, number in the family, job description, and number of years in the health facility. Section B sought information on employees' awareness of NHIS. Section C sought to elicit information on employees perception towards NHIS measured on a 5-point Likert Scale (5-strongly agreed, 4-agreed, 3-undecided, 2-disagreed, 1-strongly disagreed). Section D, the major dependent variable of the study sought information on utilization of NHIS services. Data collection was carried out with the help of two (2) trained assistants. The collection process was completed within three weeks.

Data analysis

The data was analyzed using SPSS version 23. Frequencies, tables, mean, and standard deviation were generated. Chi-square test was used to test association between

categorical data and utilization of NHIS. Level of statistical significance was set at $P<0.05$.

Ethical Consideration

Ethical clearance for the study was sought and obtained from the Health Research and Ethics Committee of Federal Medical Center, Bida. Information sheet containing general information about the study was given to the respondents before signing the consent form. Informed consent form was used to obtain respondents' permission for the interview.

Results

Demographic characteristics of respondents

Three hundred and seven (308) questionnaires were distributed, 288 were returned (93.5% return rate). Of the 288 questionnaires, 270 (87.7%) were valid, while 18(5.9%) were invalid and discarded. Table 1 shows that of the 270 respondents, greater percentage (37.8%) were within the ages of 31- 40, while the least number (4.8%) were within the ages of 51 – 60. Up to 45.6% were males while 54.4% were females. Majority (76.7%) were medical personnel while 23.3% were non-medical personnel. Only 23.3% of the respondents have spent 10 years and above with the hospital.

Awareness/knowledge of enrollees towards NHIS

Table 2 shows that all the respondents (100%) indicated awareness about the NHIS services. Highest number (33.0%), knew about the scheme through the media (radio, television, newspaper, internet), followed by those who knew about it through circular issued by the institution (32.6%). Table 3 shows that 91.5% of the respondents knew the full meaning of NHIS, while only15.9% knew all about the programmes. A little above half of the respondents (56.0%) are aware of a law that mandates employees to register with NHIS. Only about 18.4% have correct knowledge of the percentage of their salaries as contribution to the scheme. Majority (80.3%) are aware of the number of dependents expected to register under a member, while only 12.4% correctly identified all the services provided by the scheme.

Employees' perception/attitude towards the NHIS

Table 4 shows that a greater percentage of respondents have positive perceptions towards the scheme, according to the decision rule: Strongly agreed-5, Agreed=4, Undecided=3, Disagreed=2, strongly disagreed=1. Mean below 3.0 indicates non affirmation of the respondents to the statement, while a mean above 3.0 shows affirmation of the respondents to that statement.

Utilization of NHIS services by employees

Table 5 shows that majority of the respondents (81.5%) are registered with NHIS while 18.5% are not. Up to 69.3% of beneficiaries' dependants are registered. A greater percentage of respondents and their dependants (78.1% and 63.5% respectively) have access to the services. However, only 22.8% regularly utilize the services.

Table 1: Summary demographic description of respondents: N=270

Variable	Demography	Frequency (n)	Percentage (%)
Age	Below 21	18	6.7
	21-30	89	33.0
	31-40	102	37.8
	41-50	48	17.7
	51-60	13	4.8
Gender	Male	123	45.6
	Female	147	54.4
Marital status	Married	189	70.0
	Divorced	4	1.5
	Single	73	27.0
	Widowed	4	1.5
Highest Educational Qualification	WAEC/GCE/NECO	30	11.2
	OND/NCE	56	21.0
	HND/BSc	154	57.7
	MSc/Equivalent	14	5.2
	Others	13	4.9
Ethnicity	Nupe	135	50.0
	Hausa	14	5.2
	Igbo	28	10.4
	Yoruba	51	18.9
	Others	42	15.5
Household size	2 persons and below	69	27.5
	3-4 members	89	35.5
	5-6 members	62	24.7
	7 and above	31	12.3
Job description	Medical personnel	207	76.7
	Non-medical personnel	63	23.3
Years of employment	3 years or less	109	41.0
	4-6 years	54	20.3
	7-9 years	41	15.4
	10 and above	62	23.3
Income level	Less than 30,000	40	15.0
	30-80,000	80	30.1
	80-140,000	63	23.7
	140,000 and above	83	31.2

Factors affecting access and utilization of NHIS services among employees

Table 6 presents the summary influence of socio-demographic variables on the utilization of NHIS services. This shows that among the respondents who have accessed the services since enrolment, 32.6% were between the ages of 31-40 years, followed by those between 21-30 years (19.3%). Among female enrollees, only 46.7% have accessed care compared to 31.5% among males. A little above half of the respondents who have accessed NHIS services (57.8%) were medical personnel.

Table 2: Respondents level of awareness about NHIS N=270

Variables	Frequency (n)	Percentage (%)
Heard about NHIS		
Yes	270	100.0
Source of information		
Media (Radio, Television, Internet etc.)	89	33.0
Circular issued by the institution	88	32.6
Seminars/workshops	34	12.6
Colleagues at work	57	21.1
Others	2	0.7

Table 7 shows that most of the respondents (67.0%), identified out-of-stock syndrome for most drugs as a challenge while accessing the services, followed by provision of poor quality medicines and services (28.5%), and delay/non-issuance of registration cards (20.7%). Delay/denial of healthcare service was the least identified challenge (5.2%).

Discussion

This study was carried out to investigate the extent of awareness and attitude of enrollees toward the provision and utilization of the NHIS services at the Federal Medical Center north central Nigeria. This is informed by the fact that consumers' use of services is influenced by adequate and appropriate knowledge of the services, availability and acceptability of the services, to inform their decisions to use such services. Study findings suggest that all the study participants were aware of NHIS, mostly through media and hospital/office circular. This is consistent with the findings by Ekwuluo et al [16]; Olalekan[17]; and Okaro[18] which identified media and circular issued by the institution as the major sources of information. This is not surprising considering that the participants work in hospital enlightened environment as well as their level of education. However, there were discrepancies in detailed knowledge about the scheme's objectives and guiding principles. Findings from a study by Ilochonwu and Adedigba[19] revealed moderate knowledge. Results of two studies by Ndie[20]and Ekwuluo et al [16] were consistent with the findings of this study which showed that the respondents do not know much about NHIS guiding principles. This suggests the need for adequate knowledge about the scheme which should be reinforced through seminars and workshops. The study found that a greater percentage of the respondents are registered with the scheme as required for federal civil servants for which the scheme was initially established.

The study also found that the participants demonstrated positive attitude towards the scheme similar to the findings of a study by Ilochonwu and Adedigba[19] but inconsistent with the mixed feelings documented in the study by Olalekan[17]. The participants' positive perception towards the scheme will likely contribute to improved service utilization and sustainability of the scheme.

Table 3: Respondents' knowledge about NHIS

Variables	Responses	n	%
Meaning of NHIS	National Health Insurance Scheme	247	91.5
Year established in Nigeria	2005	59	24.4
Objectives of NHIS	Ensure access	110	15.7
	Protect families	241	34.4
	Ensure equitable distribution	139	19.9
	Ensure efficiency	105	15
	Ensure availability	105	15
	All objectives	64	24.5
Percentage currently covered	<5%	37	14.5
Programmes in NHIS	FSSHIP	77	15.2
	NMHIP	43	8.5
	VCSHIP	30	6.0
	TISHIP	53	10.5
	CBSHIP	65	12.9
	PPPSHIP	21	4.2
	Vulnerable groups	90	17.9
	All of the above	80	15.9
There is a law that mandates every employee to register with NHIS	Yes	141	56.0
Percentage contribution of one's salary to the scheme	5%	44	18.4
Percentage contribution by the employer	10%	49	19.9
Percentage of co-payment one make at the point of service	10%	124	51.9
Biological dependants expected to register under a member of NHIS	Spouse+4 biological children below the age of 18	209	80.4
What beneficiary with children above 18 years is expected to do	Undertake extra contribution	88	37.6
Services covered by NHIS	Outpatient care	171	15.7
	Prescribed drugs ,pharmaceutical care and diagnosis	216	19.8
	Maternity care for up to four(4) live births	159	14.6
	Preventive care	196	18.0
	Consultation with specialists	151	13.8
	Eye examination and care excluding spectacles and lenses	104	9.5
	A range of prosthesis produced in Nigeria	31	2.8
	Preventive dental care and pain relief	63	5.8

FSSHIP=Former Sector Social Health Insurance Programme; NMHIP= National Mobile Health Insurance Programme; VCSHIP = Vital Contributors Social Health Insurance Programme; TISHIP = Tertiary Institution Social Health Insurance Programme; CBSHIP = Community Based Social Health Insurance Programme; PPPSHIP = Public Private Partnership Social Health Insurance Programme; Vulnerable groups (pregnant women, children under 5, prison inmates, retirees, and aged) (NHIS)

Table 4: Perception of employees towards the NHIS

Perception Statements	SA(5) n(%)	A(4) n(%)	UD(3) n(%)	D(2) n(%)	SD(1) n (%)	Mean±SD
I am satisfied with the services I have received in the NHIS	32(6.5)	93(18.8)	17(3.4)	57(11.5)	14(2.8)	3.34±1.209
The scheme is worth the contribution I and my employer are making	21(4.3)	96(19.4)	37(7.5)	38(7.7)	14(2.8)	3.35±1.102
I prefer the NHIS to Out -of -Pocket system	72(14.6)	86(17.4)	22(4.5)	16(3.2)	10(2.0)	3.94±1.098
NHIS is a waste of time and money, so should be stopped	5(1.0)	5(1.0)	14(2.8)	85(17.2)	10.3(20.9)	1.70±0.870
NHIS Patients are treated better than out-of-pocket paying patients	12(2.4)	38(7.7)	38(7.7)	79(16.0)	47(9.5)	2.48±1.178
The problems of NHIS services are essentially administrative (Customer care)	40(8.1)	74(15.0)	38(7.7)	33(6.7)	11(2.2)	3.51±1.157
Lengthy client verification time	38(7.7)	72(14.6)	35(7.1)	36(7.3)	6(1.2)	3.53±1.113
Folder retrieval/management	30(6.1)	65(13.2)	33(6.7)	48(9.7)	11(2.2)	3.29±1.184
Referral management	28(5.7)	76(15.4)	30(6.1)	40(8.1)	6(1.2)	3.44±1.100
Handling co-payments	26(5.3)	60(12.1)	50(10.1)	30(6.1)	10(2.0)	3.35±1.101
Waiting time/delays	37(7.5)	86(17.4)	20(4.0)	32(6.5)	14(.8)	3.53±1.196
The problems of NHIS services are mainly non-administrative (Few attending medical staff)	39(7.9)	53(10.7)	31(6.3)	43(8.7)	22(4.5)	3.23±1.328
Drug non-availability/out-of-stock	112(22.7)	88(17.8)	5(1.0)	2(0.4)	3(0.6)	4.45±0.725
Poor attention by clinical staff	23(4.7)	38(7.7)	24(4.9)	71(14.4)	30(6.1)	2.75±1.293
Poor hospital and laboratory equipment	29(5.9)	53(10.7)	23(4.7)	61(12.3)	15(3.0)	3.11±1.264
The NHIS has narrow benefit packages (services covered are small)	42(8.5)	69(14.0)	27(5.5)	54(10.9)	16(3.2)	3.32±1.269
I would prefer an increase in my contribution to allow inclusion of other excluded services	26(5.3)	45(9.1)	24(4.9)	45(9.1)	64(13.0)	2.63±1.441

The low mean score recorded for scrapping the NHIS as a wasteful venture underscores respondents' strong positive perception towards the scheme as a useful health financing and provision mechanism. However, this does not translate to respondents' support for increase in their contribution to allow for inclusion of excluded services due to perceived narrow benefit packages. This may be attributed to poor knowledge about the benefits of the scheme. The study suggests that many factors affect effective utilization of the services such as poor patient care, long verification time, administrative laxities, poor referral management, long waiting time/delays, out-

of-stock, and poor hospital or laboratory equipment were the administrative and non-administrative problems reported by the respondents. Resolving these problems will encourage and improve utilization of the NHIS services in the facility.

Table 5: Level of utilization of NHIS: N=270

Variables	Response	Freq. (n)	Percentage (%)
Registered with NHIS	Yes	220	81.5
	No	50	18.5
Dependants registered with NHIS	Yes	187	69.3
	No	83	30.7
Accessed health care from your provider under NHIS	Yes	211	78.1
	No	59	21.9
Dependants accessed health care services from the providers under NHIS	Yes	169	63.5
	No	97	36.5
If yes, how often?	Rarely	37	18.0
	Always	47	22.8
	Sometimes	120	58.3
	Not at all	2	1.0
Satisfaction with services rendered	Yes	124	61.1
	No	79	38.9
Reasons for dependants not accessing NHIS health care services	Dependants not with me	10	10.3
	No need yet	3	3.1
	Not yet enrolled	83	85.6
	Poor services	1	1.0

Although in this study, a greater proportion of the beneficiaries and their dependants have accessed care under the scheme, the frequency of utilization appears very poor as only 22.8% reported to have regularly utilized the services in the facility. This is consistent with the studies in Nigeria by Inegbedion[21] and Ekwuluo et al [16] which reported similar findings. Poor utilization of the NHIS services by participants can be attributed to the challenges encountered at the point of care, in addition to inadequate knowledge of the scheme. Out-of-stock syndrome for most drugs, provision of low quality drugs and services, delay/non-issuance of registration cards and increase in OOP payments were challenges reported in this study that constrain access to care.

More so, these challenges and socio-demographic variables such as age, gender, marital status, sex, and occupation showed significant association with access and utilization of NHIS services which corresponds to findings of Inegbedion[21]. However, to improve access and utilization of the NHIS service, the participants suggested enhanced awareness, provision of prescribed quality medicines and services, improved registration process, among others. The utilization of the NHIS services and enrolment will improve greatly when issues surrounding registration and service delivery are given maximum attention.

Table 6: Influence of socio-demographic status on access to services

Variables	Have you accessed healthcare from your providers under NHIS		
	Yes (%)	No (%)	X (p-value)
Age			
Below 21	14(5.2)	4(1.5)	
21 – 30	52(19.3)	36(13.3)	35.887(0.003)*
31 – 40	88(32.6)	14(5.20	
41 – 50	45(16.7)	3(1.1)	
51 –60	12(4.4)	1(0.4)	
Gender			
Female	126(46.7)	21(7.8)	18.001(0.001)*
Male	85(31.5)	37(13.7)	
Marital			
Married	166(61.5)	23(8.5)	
Divorced	2(0.7)	2(0.7)	
Single	39(14.4)	33(12.2)	41.730(0.000)*
Widowed	4(1.5)	-	
Ethnicity			
Nupe	103(38.1)	31(11.5)	
Hausa	31(11.5)	1(0.4)	
Igbo	19(7.0)	9(3.3)	9.527(0.890)
Yoruba	42(15.6)	9(3.3)	
Others	34(12.6)	8(3.0)	
Income level			
less than 30,000	29(10.7)	11(4.1)	
30-80,000	60(22.2)	19(7.0)	10.243(0.595)
80-140,000	51(18.9)	11(4.1)	
140,000 & above	66(24.4)	17(6.3)	
Job description			
Medical personnel	156(57.8)	51(18.9)	18.001(0.001)*
Non-medical personnel	55(20.4)	7(2.6)	
Highest educational qualification	23(8.6)	7(2.6)	
WAEC/GCE/NECO	45(16.9)	10(3.7)	
OND/NCE	123(46.1)	31(11.6)	19.591(0.239)
HND/BSc	12(4.5)	2(0.7)	
MSc/MBA/equivalent	7(2.6)	6(2.2)	
Others			

*Statistical significance at P<0.05

Table 7: Factors affecting utilization of the NHIS services (N=211)

Variables	Rarely n(%)	Always n(%)	Sometimes n(%)	Not at all n (%)	X(p-value)
Delay/ non-issuance of registration cards	10(2.0)	10(2.0)	35(7.1)	0	
Delay/ denial of healthcare services	3(0.6)	0	1(0.2)	0	38.4(0.001)*
Out-of-stock syndrome for most drugs	23(4.7)	30(6.1)	76(15.4)	1(0.2)	
Provision of cheap drugs and services	0	2(0.4)	4(0.8)	0	
Increase in out-of-pocket payment	1(0.2)	4(0.8)	0	0	

Study limitations

Although the study was limited to data from one center, due to limited financial resources and time constraints, findings were similar to those of related studies in Nigeria. Moreover, such data is also not available in Niger state, for relevant comparison.

Conclusion

Study suggest that while employees of the Federal Medical Center enrolled with the NHIS are significantly aware of the scheme operation; this does not translate to positive utilization mainly due to inadequate knowledge of the guiding principles in addition to challenges that limit access to care in the facility. Enrollees identified out-of-stock syndrome for most medicines, poor and inadequate provision of health services and increased OOP payments as the major causes of poor utilization. There is need for improved efforts at providing adequate and appropriate information on the operation of the NHIS services while adequately addressing identified challenges. Effective monitoring and regulation of service delivery among NHIS accredited centers should be applied to address identified administrative and non-administrative problems in the facilities to ensure delivery of quality services.

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Authors' contribution

UCC: Participated in study design, data collection and analysis

CCE: Participated in the study design, data analysis and manuscript draft.

All authors read and approved final manuscript

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