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RESEARCH ARTICLE OPEN ACCESS

Factors Influencing the Choice of Healthcare Providers among National Health Insurance Scheme Enrollees in Public and Private Health Facilities in South Western Nigeria: A Mixed Method Study

Determinants of Choice of Healthcare Providers among NHIS Enrollees

Akande RO[1], Olarewaju SO[2], Adeomi AA[3], Akande JO[4], Oke FE[5], Ige RO[1], Abodunrin OL[1]

[1]*Department of Community Medicine, LAUTECH, Ogbomoso, Oyo State, Nigeria*
[2]*Department of Community Medicine, Osun State University, Osogbo, Nigeria*
[3]*Department of Community Health, Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria*
[4]*Department of Chemical Pathology, LAUTECH, Ogbomoso, Oyo State, Nigeria*
[5]*Oyo State Hospital Management Board, State Hospital, Ogbomoso, Nigeria*

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Abstract
Objectives: The choice of healthcare facilities is determined by the interaction of several factors and the perceived quality of care provided in the facilities. This study aimed to assess the factors influencing the choice of service providers among NHIS enrollees in public and private health facilities in Southwestern Nigeria.
Methods: A cross-sectional and mixed-method study design using both qualitative and quantitative data collection methods. Using a multistage sampling technique, 300 patients were enrolled. Four focus groups with eligible respondents were conducted in public and private health facilities. IBM SPSS was used to analyze the data, and a p-value of less than 0.05 was designated as the significance level. Qualitative data were collated and analyzed using detailed content analysis.
Results: The study found that 50 (33.3%) public and 37 (24.7%) private health facilities respondents had ever changed their health care providers respectively, but this was not statistically significant (p=0.098). Determinants of choice of healthcare providers among the public and private health facilities enrollees include; use of facility before joining the scheme (p<0.001), courteous/friendly hospital staff (p=0.042), adequate personnel and equipment (p=0.002), skills and expertise of personnel (p=0.03), use of health facility by majority of colleagues, (p<0.001) and spending greater than 10 years in the scheme (p=0.007).
Conclusion: Factors influencing the choice of healthcare providers among respondents in public and private health facilities, were mainly health facility related. Accredited healthcare providers seeking to improve the enrollment of new clients as well as retain their old clients should address these factors.

Keywords: Enrollees, Health care providers, Public, Private, Choice, NHIS

Plain English Summary

Choice of health care provider (HCP) is often associated with higher satisfaction and when left to the discretion of the clients without any significant external influences, has been observed to be associated

Correspondence:
Akande, Roseline O
Department of Community Medicine, LAUTECH, Ogbomoso,
Oyo-State, Nigeria.
+234 8164155313, roakande@lautech.edu.ng

with better clinical outcomes. Although services in the Nigerian National Health Insurance Scheme (NHIS) are delivered through a mix of public and private providers, and enrollees theoretically have the option to choose their healthcare providers, this has not been so effective in practice. It is critical to understand that enrollee preference and satisfaction with the quality of care received determine how effective a healthcare provider is judged in service delivery.
This study used a combination of quantitative and qualitative data collection methods to explore newer factors influencing the choice of healthcare providers rendering services to enrollees under NHIS in public and private healthcare facilities. Identified factors influencing the choice of healthcare providers among the public and private health facilities enrollees in this study include; using the facility before joining the scheme, having courteous/friendly hospital staff, adequate personnel and equipment, qualified medical personnel, use of health facility by majority of colleagues at work, and spending greater than 10 years in the scheme. It is recommended that all accredited healthcare providers who want to improve the enrollment of new clients as well as retain their old clients should consider these factors for action.

Background:

The choice of health facilities for healthcare by an individual is largely determined by several factors including his/her taste, the healthcare providers, satisfaction with services and the perceived quality of care provided in the facilities (1, 2). Choice of health care provider (HCP) is often associated with higher satisfaction and when left to the discretion of the clients without any significant external influences, has been observed to be associated with better clinical outcomes. Although services in the Nigerian National Health Insurance Scheme (NHIS) are purchased through a mix of public and private providers, and enrollees theoretically have the option to choose their healthcare providers, this has not been so effective in practice (3, 4, 5, 6, 7). The Nigerian health insurance platform's accredited healthcare providers must continuously enhance their delivery of health services to enrollees.

Supporting patients' choices will inadvertently boost competition across private and public health care providers, and make the delivery of patient-centered care realistic (8, 9). It is critical to understand that enrollee preference and satisfaction with the quality of care received determine how far along a healthcare provider is judged. The majority of the previous studies concentrated on variables influencing enrollees' choice of service providers in either public or private health facilities, despite the program's long history of providing services through a mix of health care providers in Nigeria. (7, 10, 11). Furthermore, many of these studies did not use a mixed methods approach (quantitative and qualitative) despite its increasing use in healthcare research.

The findings of this study will provide policymakers and health managers with information on areas needing improvement in the health service delivery process to foster public confidence in the National Health Insurance Scheme. This study will further explore newer factors influencing the choice of health care providers rendering services to enrollees under the scheme to improve their uptake of services in either public or private health care facilities. Therefore, this study aimed to assess the factors influencing the choice of service providers among NHIS enrollees in public and private health facilities in South Western Nigeria using a mixed-method approach.

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Materials and Methods

Study setting

This study was conducted in Oyo State, an inland state in southwest Nigeria. Oyo-state has a projected population of 7,840,864, making it the fourth most populous state in Nigeria (12). The State is made up of thirty-three Local Government Areas (LGAs). These LGAs can be broadly divided into twelve urban, nine semi-urban and twelve rural LGAs. Two hundred and two (202) Health Care Providers (HCPs) in Oyo-State are accredited by the NHIS and offer primary, secondary, and tertiary level care to program participants (13).

Study design and population

This was a cross-sectional and mixed-method design. Both qualitative and quantitative methods were utilized for the study. Patients receiving care from accredited public and private health facilities in Oyo State who were registered with the NHIS made up the study population.

Inclusion/Exclusion criteria

The inclusion criteria consisted of clients who registered with NHIS under private or public health facilities and have been receiving care for at least a year in the facilities. Clients seeking care in rural LGAs under public or private health facilities were excluded because there were limited health facility options to select health care providers from when dissatisfied with services rendered. Insured clients accessing care in Primary Health Centers were also excluded from the study.

Sample size determination

The sample size was calculated using the formula for comparing two groups: $N = \frac{2(Z\alpha + Z\beta)^2 P_0 (1-P_0)}{d^2}$ (14).

Where; N = Minimum sample size, Zα = Critical ratio at a significance level of 5%, Zβ = Statistical power at 90%, P0 = Means of the 2 prevalence in the 2 comparison groups i.e. (P1 + P2) /2 (Based on previous documented studies in Nigeria, the prevalence of clients' satisfaction studies done in public and private health care facilities were 66.8% (15) and 43.04% respectively (16), d = difference between P1 and P2).

A non-response rate of 10% was envisaged among the respondents and adjustment for this was made to arrive at a minimum sample size of 150 respondents from each of the public and private health care facilities selected. A multi-stage sampling technique was thereafter employed to select the respondents who were recruited for the quantitative arm of the study.

Sampling Technique

The sampling process used a multi-stage, four-level sampling technique.

Stage one: After obtaining a list of all three senatorial districts in Oyo State, two senatorial districts- Oyo North and Oyo South- were chosen at random by balloting technique.

Stage two: Using the simple random sampling technique (balloting method), three urban local government areas were chosen from the list of Local Government Areas (LGAs) in each of the two senatorial districts.

Stage three: One public tertiary health facility was chosen using simple random sampling (balloting technique) out of the three public tertiary health facilities in the chosen LGAs, and the sole private tertiary health facility in the State was purposively chosen. At the secondary health facilities level, two public and two private health facilities were chosen from the remaining five local government areas.

A proportional allocation was used to determine the number of NHIS clients to interview in each of the twenty-two selected health facilities since the number of clients varied from one facility to the other.

Proportional allocation of clients was obtained using = $\frac{Xa}{NT} \times$ Sample size

Where Xa = Number of NHIS clients in a particular health facility.

NT = Total number of NHIS clients in all selected private/public health facilities

Stage four: From the twenty-two chosen health facilities, eligible respondents were chosen using a systematic random sampling technique. Sampling interval (k) was calculated for each of the selected facilities by dividing the total number of patients projected (based on the usual pattern in the hospital) to be seen within the three-month data collection period by the determined sample size for the particular facility using proportional allocation. In each of the selected facilities, the first respondent was selected using a simple random sampling technique (balloting) from the first to the k^{th} patient. Subsequently, every kth patient from the first selected patient was recruited until the determined sample size for that facility was met and where the selected client declined, the next client was chosen to replace.

For the qualitative study, four focus group discussions (FGDs) were conducted with two groups each, from enrollees accessing care under the NHIS in public and private health facilities. The FGDs were conducted in one public and private health facility with high NHIS enrollees' load in two LGAs out of the 6 selected LGAs giving a total of four FGDs and saturation limits were not considered. Participants were 10 eligible enrollees per group, who did not take part in the quantitative data collection. The respondents were selected by purposive sampling and contacted through phone calls.

Research tools and data collection techniques

A semi-structured questionnaire was used for data collection and the mode of data administration was interviewer-based. The instrument comprised both self-developed and standard modified patient satisfaction questionnaire questions (17, 18, 19).

The qualitative method made use of a focus group discussion (FGD) guide to collect relevant information on the perspective of the clients involved in the study. The purpose of the FGD was to provide a deeper insight into the factors influencing the choice of service providers among enrollees in the NHIS in public and private healthcare institutions. The FGD participants were eligible clients who did not participate in the quantitative data collection. Four focus group discussions were conducted in two selected LGAs with two public and two private health facilities with high client loads purposively selected in each of the LGAs for this purpose.

The FGD guide explored issues regarding how the enrollees chose their current healthcare providers and the factors influencing their choices. It also sought to know the factors that could warrant changing their current healthcare providers and suggestions on how their healthcare providers can improve service delivery to them.

The four focus group discussions in the public and private health facilities were standardized by ensuring that the participants were stratified into two homogenous groups based on their socio-economic status (higher and lower socio-economic groups). The FGD guide used was developed in English and translated into the local dialects by experts. The same moderators and note-takers were used for the four FGDs and they strived to be neutral and allocated equal response times between participants. The researchers were the moderators and made use of trained note-takers who recorded key issues (through jottings and audio recording) during the sessions. Each session lasted between forty-five and sixty minutes.

Pretest and Validation of the Instrument

Before the final data collection, the questionnaire's validity and reliability were assessed. Three Nigerian specialists in the domains of epidemiology and medical statistics at a Nigerian university evaluated the extent to which the variables in the questionnaires were pertinent to the objectives of the study. The questionnaire was then pretested among NHIS-registered patients who receive medical care in Osun State's public and private healthcare facilities. The pretest assisted in determining whether the questions were pertinent to eliciting answers from the participants. For the examined variables, a Cronbach's alpha internal consistency reliability of 0.84% was attained.

Measurement of outcome variables

The selection of healthcare providers was the study's main outcome measure.

The choice of healthcare providers was assessed using 17 self-developed questions that were also modified from standard patient satisfaction surveys (Northwest Territories' Healthcare Services Client Satisfaction Questionnaire) (18, 19, 20). The questions focused on enrollees' choices of current healthcare providers/facilities, infrastructure, equipment, personnel and services rendered at the health facilities. Examples of these questions are as follows: (1) It is the closest hospital to my place of residence; (2) It is the hospital I have been using before joining NHIS; (3) The staff of the hospital are friendly/courteous; (4)The hospital has adequate personnel and equipment; (5) Adequate skill and expertise of the personnel for my health problems; (6) Quality of counselling you received about the problem or treatment; and (7) It is the hospital chosen by the majority of the staff in my working place; (8) Others (specify). There was only one open-ended question: "How long have you been receiving care from your healthcare provider?" The Independent variable was the health facility type.

Data Analysis

After the questionnaires were sorted, they were input into a computer, and IBM Statistical Package for the Social Sciences version 24 was used to analyze the data. Frequency tables and charts were used to present the data. In keeping with the goals of the study, cross-tabulations were performed at the bivariate level to look for correlations between the various categorical variables.

The categorical variables were assessed using the Pearson Chi-square test. The logistic regression model was utilized in the multivariate analysis to determine the factors that influence the service providers that NHIS enrollees in public and private health facilities choose. The variables included in the model were limited to those with statistically significant p-values. In addition to being expressed as odds ratios (ORs), the estimated coefficients' 95% confidence intervals were computed. The study's significance threshold was established at $p < 0.05$.

Compiling and analyzing the qualitative data was done by detailed content analysis. The researchers first compiled the data into broad themes in a matrix. The researcher and research assistants then transcribed the data at the end of each day to identify themes that needed more investigation. To bring the data together, a second thematic analysis was carried out using MAXQDA software. Two separate analysts completed this task. The analysis involved grouping themes, determining relationships between themes and subthemes, looking for instances of outliers, using intervening variables, and cross-referencing the results with information from additional sources. After balancing their data, the two analysts reached a consensus on the topics under discussion.

Results

In both private and public health facilities, the average age of the participants was 39.9 ± 10.0 years and 42.4 ± 10.1 years, respectively. As would be expected, the majority of patients in both public and private healthcare facilities were married and had completed their tertiary education (Table 1).

Table 1: Socio-Demographic Characteristics of Respondents in Private and Public Health Facilities

Variables	Type of Health Facility (%)	
	Private (n = 150)	Public (n = 150)
Age groups (in years)		
21 – 40	91 (60.7)	71 (47.3)
41 – 60	55 (36.7)	72 (48.0)
> 60	4 (2.7)	7 (4.7)
Gender		
Male	80 (53.3)	62 (41.3)
Female	70 (46.7)	88 (58.7)
Ethnicity		
Yoruba	134 (89.3)	139 (92.7)
Hausa	6 (4.0)	6 (4.0)
Igbo	7 (4.7)	3 (2.0)
Others	3 (2.0)	2 (1.3)
Level of education		
Primary	0 (0.0)	7 (4.7)
Secondary	20 (13.8)	18 (12.0)
Tertiary	121 (80.7)	120 (80.0)
Others	9 (3.0)	5 (3.3)
Marital status		
Single	18 (12.0)	4 (2.7)
Married	128 (85.3)	141 (94.0)
Widowed	3 (2.0)	2 (1.3)
Separated	1 (0.7)	3 (2.0)
Occupation		
Civil servants	104 (69.3)	114 (76.0)
Private sector employee	29 (19.3)	12 (8.0)
Artisan	9 (6.0)	5 (3.3)
Unskilled workers	8 (5.3)	19 (12.7)
Religion		
Christianity	124 (82.7)	110 (73.3)
Islam	26 (17.3)	39 (26.0)
Others	0 (0.0)	1 (0.7)

The reasons for the choice of the current health facility used by the NHIS clients

The study found that 50 (33.3%) of the public and 37 (24.7%) of the private health facilities respondents had ever changed their health care providers respectively, although this was not statistically significant (p=0.098). At bivariate levels, factors that influenced the current choice of health facility among the private and public health facilities respondents include; use of facility before joining the scheme (p=0.020), courteous/friendly hospital staff (p=0.002) adequate personnel and equipment (p=0.015), skill and expertise of personnel (p=0.019), use of hospital by majority of colleagues, (p=0.022) and spending greater than 10 years in the scheme (p=0.025). More enrollees in the private health facilities 50 (33.3%) have also had reasons to change their HCPs than their public health facilities counterparts 37, (24.7%) but this finding was not statistically significant (p=0.098) (Table 2).

Table 2: Reasons for Current Choice of Current Health Care Providers among the Enrollees

Reasons for choosing current health care provider	Type of Health Facility (%)			Statistics
	Private (n=150)	Public (n=150)	Total (N= 300)	
The closest hospital to my residence				
Yes	70 (46.7)	55 (36.7)	125 (41.7)	χ^2=3.086
No	80 (53.3)	95 (63.3)	175 (58.3)	df = 1
				p=0.079
Use of hospital before joining the scheme				
Yes	59 (39.3)	40 (26.7)	99 (33.0)	χ^2 = 5.442
No	91 (60.7)	110 (73.3)	201 (67.0)	df=1
				*p=0.020
Hospital staff are friendly/ courteous.				
Yes	26 (17.3)	49 (32.7)	75 (25.0)	χ^2 = 9.404
No	124 (82.7)	101 (67.3)	225 (75.0)	df = 1
				*p=0.002
Adequate personnel and equipment				
Yes	67 (44.7)	88 (58.7)	155 (51.7)	χ^2 =5.887
No	83 (55.3)	62 (41.3)	145 (48.3)	df=1
				*p=0.015
Skill and expertise of personnel				
Yes	51 (34.0)	71 (47.3)	122 (40.7)	χ^2 =5.526
No	99 (66.0)	79 (52.7)	178 (59.3)	df=1
				*p=0.019
The hospital is used by the majority of colleagues at work				
Yes	15 (10.0)	29 (19.3)	44 (14.7)	χ^2 =5.220
No	135 (90.0)	121 (80.7)	256 (85.3)	df=1
				*p=0.022
Years spent with current health care provider				
<10 years	130 (86.7)	115 (76.7)	245 (81.7)	χ^2 =5.009
10 years and above	20 (13.3)	35 (23.3)	55 (18.3)	df =1
				*p=0.025
Ever changed health care provider since joining NHIS				
Yes	50 (33.3)	37 (24.7)	87 (29.0)	χ^2 = 2.736
No	100 (66.7)	113 (75.3)	213 (71.0)	df=1
				p=0.098

* Statistically Significant

FGD Result

Reasons for the current choice of health care provider

For private health facilities, most of the discussants believed that the quality of services delivered in private facilities was better than that in public health facilities. Some equally said they chose private health facilities because they had been using private facilities long before joining the scheme. Other reasons also commonly cited by the discussants include;

"I chose private hospital because of the frequent strike actions in public hospitals".

"I don't have to wait too long before I will be attended to by the doctor unlike in public hospitals where many people go".

"I prefer private hospitals to public hospitals because public hospital gives low-quality drugs to patients"

For public health facilities, an appreciable number of the participants in the public health facilities said they chose them as their health care provider because they usually have more qualified personnel and equipment to provide quality health care delivery. Other common reasons for choosing the public hospitals given by the discussants are;

"The public health facilities respectably treat NHIS clients".

"They have a special unit and doctors for NHIS clients; therefore, I can still get treatment even when the health workers are on strike"

"The private hospital sometimes refers complicated cases to public hospitals and not the other way round"

Two participants, however, had different perspectives and boldly said;

"There are many quacks operating private hospitals in Nigeria, so am very careful not to use them"

"I believe NHIS are likely to deduct more money from those clients attending private hospitals than from those attending public hospitals"

Factors responsible for changing health care providers under NHIS by respondents in both types of health facilities

Out of the public health facilities enrollees, factors such as lack of equipment and laboratory services (p=0.001) and not liking private health facilities necessitated a change of their health care providers (p<0.001). Changing location/residence was the main factor responsible for changing health care providers among the respondents receiving care in private health facilities (p=0.032) (Table 3).

Table 3: Factors Responsible for Changing Health Care Providers among NHIS Enrollees in private and public health facilities

Reasons for Changing Care Providers	Type of Health Facility (%)			Statistics
	Private (n =50)	Public (n = 37)	Total (N= 87)	
24-hour services for enrollees are not available				$+\chi^2$ =2.375
Yes	3 (6.0)	6 (16.2)	9 (10.3)	df=1
No	47 (94.0)	31 (83.8)	78 (89.7)	p=0.123
Unavailability of equipment and lab services for most investigations/tests				χ^2 = 6.585
Yes	8 (16.0)	15 (40.5)	23 (26.4)	df=1
No	42 (84.0)	22 (59.5)	64 (73.6)	*p=0.010
Environment is unkempt				χ^2 =0.482
Yes	8 (16.0)	4 (10.8)	12 (13.8)	df=1
No	42 (84.0)	33 (89.2)	75 (86.2)	p=0.488
Staff poor relationship				χ^2 = 0.024
Yes	17 (19.5)	12 (13.8)	29 (33.3)	df=1
No	33 (66.0)	25 (67.6)	58 (66.7)	p=0.878
Doctors are not present most times				$+\chi^2$ = 5.732
Yes	4 (8.0)	7 (18.9)	11 (12.6)	df=1
No	46 (92.0)	30 (81.1)	76 (87.4)	p=0.198
Do not trust staff competence				χ^2 =1.015
Yes	9 (18.0)	10 (27.0)	19 (21.8)	df=1
No	41 (82.0)	27 (73.0)	68 (78.2)	p=0.314
Do not like that particular private hospital				χ^2 =12.731
Yes	2 (4.0)	12 (32.4)	14 (16.1)	df=1
No	48 (96.0)	25 (67.6)	73 (83.9)	*p<0.001
Do not like that particular public hospital				
Yes				$+\chi^2$ =1.963
No	5 (10.0)	1 (2.7)	6 (6.9)	df =1
	45 (90.0)	36 (97.3)	81 (93.1)	p=0.161
No particular reason				$+\chi^2$=0.156
Yes	4 (8.0)	2 (5.4)	6 (6.9)	df=1
No	46 (92.0)	35 (94.6)	81 (93.1)	p=0.894
Change of residence within the same town				$+\chi^2$ =4.932
Yes	15 (30.0)	4 (10.8)	19 (21.3)	df=1

No	35 (70.0)	33 (89.2)	68 (78.2)	*p=0.021
Transfer out of town				+χ^2 =0.631
Yes	7 (14.0)	4 (10.8)	11 (12.6)	df =1
No	35 (86.0)	33 (89.2)	76 (87.4)	p=0.725

* Statistically Significant + Fishers Exact test

Determinants of Choice of Health Care Providers among NHIS Enrollees in Private and Public Health Facilities Using Logistic Regression

NHIS enrollees accessing care from a particular health facility before joining the scheme were 5 times more likely to continue to receive care with that health care provider (p<0.001, OR=5.765, CI= 1.210-5.738). Also, study participants receiving care with health facilities who had courteous/friendly staff (p=0.005, OR=3.127, CI=0.542-0.876) and adequate personnel and equipment (p=0.002, OR=9.831, CI=1.438-1.926) were 3 times and 9.8 times more likely to remain with their healthcare providers for their healthcare needs. Respondents receiving care at health facilities whose personnel had the required skills and expertise also had a 4.9 times likelihood of retaining their healthcare providers (p=0.03, OR=4.982, CI=1.710-3.127). The use of health facilities by the majority of colleagues at work (p<0.001, OR=6.047, CI=1.940-37.924) and having spent more years in the scheme (p=0.03, OR=4.982, CI=1.710-3.127), were also factors that had significantly higher odds with the choice of health facilities among the enrollees (Table 4).

Table 4: Determinants of Choice of Health Care Providers among NHIS Enrollees in Private and Public Health Facilities using Logistic Regression

Variables	p-value	Odds Ratio	95% Confidence Interval	
			Lower	Upper
Use of facility before joining the scheme	<0.001*	5.765	1.210	5.738
Hospital staff are friendly/ courteous.	0.005*	3.127	0.542	0.876
Adequate personnel and equipment	0.002*	9.831	1.438	1.926
Skill and expertise of personnel	0.003*	4.982	1.710	3.127
The hospital is used by the majority of colleagues at work.	<0.001*	6.047	1.940	37.924
Years spent in the scheme				
0-5 years (R)				
6-10 years	0.053	1.230	0.343	8.340
>10 years	0.007*	8.406	1.842	3.798
Unavailability of equipment/ lab services for most investigations/tests	0.095	1.458	0.132	10.652
Do not like that particular private/public hospital	0.068	1.726	0.667	14.209
Change of residence within the same town	0.074	1.523	0.542	9.913

R-Reference variable; *Statistical Significance

Respondents' likely reasons for future change of current Health care Providers

About half, 76(50.7%) of the respondents in private health facilities and over half of them 82 (54.7%) in public health facilities reported that long waiting times may necessitate changing their health care providers soon. Next to this, is a lack of required staff expertise 37, (24.7%) and 32 (21.3%) in the private and public health facilities respectively (Figure 1).

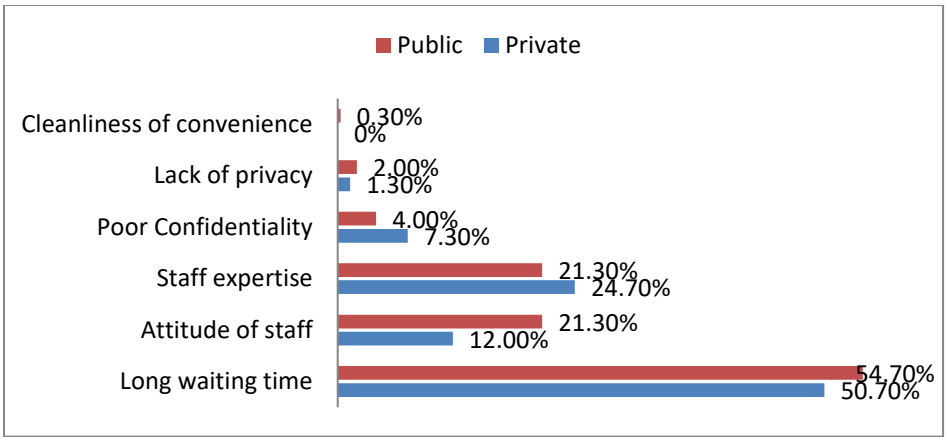

Figure 1: Respondents' likely Reasons for future change of Current Health care Providers

Factors that may be responsible for changing healthcare care providers in the Future

For private health facilities, most of the discussants agreed that the following reasons would probably make them change their health care provider in the future. Some participants gave these views;

"*If my health care provider refused to review the low quality of drugs they give sometimes, making us waste time and spend more money, I will change to another one".*

"The fact that we are treated the same way as other uninsured patients without a separate unit for us, may make me think of going to public health caregivers"

"Not giving NHIS clients consideration to receive care after 4p.m closing time, except in an emergency"

"Not allowing me to have the benefit of using my health insurance outside my location when health care is needed by me and my family members"

For public health facilities, the majority of the discussants here said the most probable reason why they may change their health care provider is the inadequate drug supplies and giving substandard drugs to clients under the scheme in public hospitals. Next to that is the waiting time, some of the participants said the waiting time before we see the doctor is sometimes too long, while a few of them also complained that

"Despite the separate unit provided for NHIS clients the incessant strike actions affected services given during the period because some specialists that we needed their care were also on strike and when I couldn't wait again, I went to a private hospital to see the specialists at an additional cost to me"

Suggested ways to improve the quality of care for enrollees by healthcare providers under NHIS

Less than two-thirds (60.7%) of the respondents in private health facilities want a separate unit created for them while 41.3% of the respondents in the public health facilities want more funding by the NHIS for the health care providers. Other major issues suggested for improvement of the scheme were re-training of staff and employment of more staff (Figure 2).

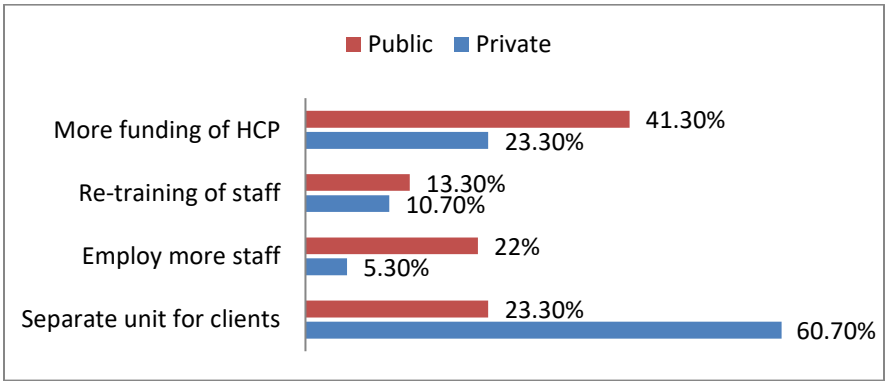

Figure 2: Suggested solutions proffered by enrollees to improve the quality of care by healthcare providers

Suggestions on how to improve NHIS

The FGD discussants in private and public health facilities gave similar suggestions on how to improve service delivery to them by NHIS. Majority of the discussants said

"Coverage should be extended to everyone, not only civil servants, children above 18 years and parents should still be registered as our dependents. Furthermore, coverage should not be compulsory for a couple both working under the federal govt. One of them should be enrolled and the spouse registered under him/her"

"The NHIS should enlighten clients on the services that the scheme covers because oftentimes enrollees are not aware of some services that the scheme does not provide until health care providers inform us. More so "high-quality drugs and more drugs should be included and given under the scheme. The government should investigate corruption allegations that we have been hearing about in NHIS and culprits served justice while capitations should be paid promptly to the health care providers"

A few recommendations were also given that were specific to the private and public health facilities.

For private health facilities, a few participants during the discussions suggested that they need a separate unit for NHIS enrollees where they can access care anytime they need it. One of them said,

"The private hospital should copy what the public hospitals are doing by giving us a new department within the hospital that can take care of our health needs, especially after official closing hour"

Another one suggested that "*my health care provider should treat me like those paying for his service immediately"*

For public health facilities, a few discussants want the government to improve the welfare of the health care providers and upgrade equipment in the public hospitals. One participant said,

"Most strike actions in public hospitals recently, are due to unpaid salaries, inadequate personnel and lack of functional equipment which the government should fix, so that NHIS clients can receive better health care"

Another one was quick to add;

"During strike actions, NHIS should refund the money I used for buying drugs outside the hospital without delay and even pay me more than the actual price of the drugs as inconvenience allowance"

Discussion

In this study, the common factors influencing the choice of health care providers among both enrollees in public and private health facilities were the use of the facility before joining the scheme, adequate personnel and equipment, skills and expertise of personnel, and use of the hospital by the majority of colleagues at work. Other factors such as having spent more than ten years enrolled in the scheme and courteous/friendly hospital staff were factors peculiar to private health facilities enrollees. All these factors were reported as responsible for the current choice of health facilities used to obtain care under the scheme. This finding is similar to that reported by the NHIS enrollees receiving care in public health facilities during the focus group discussion.

Two frequently provided reasons for choosing public health facilities given by the discussants included the ease of referral and access to required specialists in public health care facilities. This finding corroborates that reported by studies done in Kwara-State and Kano-State, which found that public health facilities were preferred by the majority of their respondents (3, 6). These studies revealed that the factors that influenced the participants' decision to attend a particular health facility were waiting time, distance, professional competence, cost, effective treatment, and quality service, in that order (3, 6). Some studies conducted in Ilorin, North Central Nigeria, and Sagamu, South Western Nigeria, revealed different results, indicating that the respondents preferred private-for-profit healthcare facilities (21, 22). Patients must therefore be informed about the quality of care that health care providers can provide them, based on the availability of adequate and functional equipment as well as the technical competency of the staff, for them to actively choose the best provider.

Previous studies have found that determining the factors responsible for a patient's choice of healthcare providers cannot be assessed without considering several factors such as waiting time, privacy of the medical examination, cleanliness of the health facility, and staff-patient relationship amongst others, majority of which the enrollees utilizing the healthcare services cannot control (2, 8, 10). More NHIS enrollees in private health facilities have had reasons to change their health care providers than their public health facilities counterparts. Change of location /residence within a town was an important factor for changing health care providers among the private health facilities enrollees. The reason for this may be because proximity to the health facilities for the enrollees lowers transportation costs and reduces the time to

reach the care facilities, especially when emergency services are required. This finding is in tandem with that reported in a study done in Ghana which also observed that enrollees chose facilities that had closer proximity to their residence (23).

Furthermore, when asked about the most probable reason why they may change their care provider in the future, some NHIS clients using private healthcare facilities who took part in the focus group discussion said the refusal to review the quality of drugs given by their healthcare providers leading to additional cost to get high-quality drugs could make them change them. Others reported that they do not get the required medical care as enrollees after closing hours except during emergencies. Our findings are surprising, in that most private health facilities are usually perceived by clients to offer superior healthcare services compared to public health facilities as shown by studies conducted in Tanzania and Indonesia 24). In many ways, drug availability has been shown to have a significant correlation with the quality of care under social health insurance systems. Previous studies conducted in Ghana and Nigeria also linked the lack of medications to patient's perception that the quality of health services delivery by healthcare providers was poor (25, 26). Thus, private healthcare providers need to improve the availability of quality drugs to their enrollees to assure them of better health outcomes and subsequently attract newer clients.

In contrast, these views differ from the participants attending public health facilities with the majority of them complaining about the waiting time before receiving care. Some of the discussants also said that incessant strike actions affected the quality of care given during the period because some specialists' services required by them were not available at that time and they often needed to pay out of pocket at private health facilities to obtain those services. Similarly, previous studies have also reported complaints of long waiting times among enrollees using public health facilities (6, 27, 28). Public healthcare providers may therefore need to urgently address the long waiting time and incessant strike actions to promote retention of NHIS enrollees. Thus, it can be inferred that the choice of health-providing facility is an important decision that involves interaction between several factors, particularly among the NHIS enrollees.

Conclusion

This study found that factors influencing the choice of healthcare providers among respondents in public and private health facilities were multi-dimensional and mainly health facility-related. More enrollees in the private health facilities had changed their health care providers than the public health facilities enrollees. The determinants of enrollees' choice of health care providers were the use of facility before joining the scheme, adequate personnel and equipment, skills and expertise of personnel, use of hospital by the majority of colleagues, having spent more than 10 years in the scheme and courteous/friendly hospital staff in public and private health facilities. Oversight regulatory functions by stakeholders including NHIS and HMOs over accredited HCPs should be strengthened. Accredited healthcare providers seeking to improve the enrollment of new clients as well as retain their old clients should address these identified factors.

Study limitations

Social desirability bias could be introduced because of the use of an interviewer-administered type of data collection tool. In addition, the study only covered urban areas where enrollees could choose between varieties of healthcare providers.

List of Abbreviations

NHIS: National Health Insurance Scheme
HMO: Health Maintenance Organization
HCP: Health Care Providers
LGA: Local Government Area
SPSS: Statistical Package and service solution
FGD: Focus Group Discussion

Declarations

Ethical approval and consent to participate

Ethical approval was obtained from LAUTECH Teaching Hospital, Ogbomoso Ethics and Research Committee (LTH/OGB/EC/2015/082). The Medical Directors of the healthcare facilities involved also gave their approval for the study to be carried out. The purpose of the study and the fact that participation was entirely voluntary were fully disclosed to the respondents. Written informed consent was obtained from each respondent individually, and all information collected was kept private. Only serial numbers were used to identify the participants.

Consent for publication

All the authors gave consent for the publication of the work under the Creative Commons Attribution-Non-Commercial 4.0 license.

Availability of data and materials

The data and materials associated with this research will be made available by the corresponding author upon reasonable request.

Competing interests
The authors declare no conflict of interest associated with this manuscript.

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Author contributions
ARO, AAA and OSO were involved in the development of the idea for the study. Authors ARO, OSO, AAA, AJO, OFE, IRO and AOL were involved in the data collection and data entry. Authors ARO, AJO, OSO, AAA, OFE, IRO and AOL were involved in the analysis and interpretation of data. Participating in the preparation and critical review of the manuscript were authors ARO, AOL, OSO, AAA, OFE, IRO, and AOL. When the manuscript was finally presented, all authors read it and gave their approval.

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