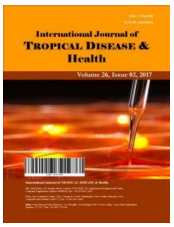

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Out-of-Pocket Spending and Access to Healthcare Services in Sokoto, Nigeria

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Authors' contributions

This work was carried out in collaboration between all authors. Authors RAO and MOO designed the study, performed the statistical analysis, wrote the protocol and first draft of the manuscript. Authors AUK and MAM managed the analyses of the study. Authors GJG managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

Background: User fees paid through out-of-pocket spending (OOPS) impede access to healthcare services, particularly among the poor. The study aimed to assess the households' pattern of out-of-pocket spending, predictors of access to healthcare, and to explore their socio-economic (SES) status differences in paying for their healthcare.
Methodology: This was a descriptive cross-sectional study design. The instrument was a pre-tested, semi-structured interviewer-administered the questionnaire. Association between variables was assessed using the chi-square test and logistic regressions at α <.05.
Results: The mean age of respondents was 41.7 ± 12.6 years. Generally, 94% of payments were made through 'formal' out-of-pocket spending (user-fees) with most respondents having to source

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for funds from own money (90.5%). Households in the lower social class were more likely to pay for their healthcare through OOPS (X^2 = 11.4, p = 0.001) and often patronized traditional care and PHC. User-fees and lower social class were significant predictors of poor access to healthcare.
Conclusion: This study brought to the fore that user-fees (or formal OOPS) negatively impacts on the access to healthcare services at the health facilities. The Federal Government should explore and other sources of financing that are efficient, equitable, fair and sustainable like the Community-Based Insurance Scheme (CBIS) and National Health Insurance Scheme (NHIS) and also increase investment and public spending on health.

Keywords: Sokoto; out – of – pocket spending (OOPS); user – fees; Socioeconomic (SES) index; access to healthcare.

1. INTRODUCTION

Access and utilization of basic healthcare services of the acceptable standard are still denied to many of the world's poorest people [1]. Against the backdrop of the severely underfunded health system, the government is faced with a dilemma of how to improve access to healthcare services in the face of scarcity of resources. Access entails entrance, admittance, to healthcare and it includes availability, accessibility, affordability, accommodation and acceptability [2]. User – fees (sometimes referred to as formal out-of-pocket spending) are formal charges levied or payments made at the point of use for any aspect of healthcare services, and they may be charged as consultation fees, fees for drugs and medical supplies or charges for any health service rendered, such as outpatient or inpatient care [3,4]. Payment for healthcare services in the form of out-of-pocket user charges is likely to present a barrier to access. Other barriers to quality health care delivery at the facility level include a shortage of resources (manpower, money, material and time) [1].

The health sector in any country has been recognised as the primary engine of growth and development [5]. But despite the laudable contributions of the health sector to economic development, the Nigerian health sector has witnessed periods of turbulence that have negatively retrogressed the progress recorded at various times. The rationale for charging user-fees was set out in a World Bank document in 1987, which argued that user-fees would: raise substantial additional revenue for the health sector which could be used to improve efficiency and equity; improve targeting of resources by reducing frivolous demand for healthcare; improve efficiency by encouraging people to use low cost primary healthcare services instead of more expensive hospital services [6].

Globally, every year more than 150 million individuals in 44 million households face financial catastrophe as a direct result of having to pay for healthcare services through out-of-pocket payment [7]. About 25 million households or more than 100 million individuals are pushed into poverty by the need to pay for services [7]. Against this background, health systems are therefore not just concerned with improving the health of individuals, families and communities but protecting them against financial catastrophe due to illness costs [8].

Publicly financed health care services have low coverage rates especially among the poor in many developing countries [9], increasing the necessity for OOP in purchasing health services. OOPS for health services has been shown to further impoverish the poor as well as deprive most of them of seeking healthcare [10]. While, some recent studies show reductions in OOPS to less than 7% in a few low-income countries, most low- middle income countries have over 50% of the health financing done via OOPS due to the lack of pre-payment mechanisms like Social Health Insurance [11,12]. This also compels sick individuals to access alternative sources of health care such as over-the-counter treatments and traditional care.

Health care financing is worse hit in the developing countries (especially Africa) where healthcare faces a serious problem of acceptability (due to lack of pre-payment mechanisms) with out-of-pocket expenditure accounting for over 70% of total health expenditure and over 90% of private health expenditure [13,14]. A study done among government employees in Abakaliki, Ebonyi state in Nigeria revealed that 69% of payment for healthcare services was through OOPS [15]. This was lower than 90% reported in a study done in two states (Anambra and Enugu) [16], and 98% reported in Delta state [17]. In Ghana

and Kenya, the prevalence of OOPS from previous studies were 65-70% and 24.1% respectively [18,19]. In Asia, the prevalence of OOPS in a study carried out in Vietnam is 64% [20]. This indicates the catastrophic effects of OOPS on the poor people more than the rich.

The main consequences of the absence of financial protection mechanisms have been a reduction in access to quality healthcare, not seeking treatment, indiscriminate use of drugs prescribed by quacks and long-term poverty [21]. Despite the potential importance of user fees mostly paid as OOPS in developing countries in revenue generation, it has been shown to be the most regressive of all the financing mechanisms [22] leading to the quest for its removal because of the huge barrier that it poses to accessing and utilizing quality healthcare [23,24].

High out-of-pocket expenditure on health in form of user-fees has also further exacerbated the pauperization of the adverse economic condition of the poor [25]. Studies have shown repeatedly that user-fees end up excluding the poor from essential healthcare services, while at the same time recovering only a tiny fraction of the cost. Out-of-pocket health expenditures can represent a large and sometimes catastrophic burden on a household. An overall trend on OOPS is that consultations and medications are the costliest to individuals relative to other health-related expenses. However, for the non-poor, hospitalization is on average more costly than medications [26].

In 2004, Nigeria's relative poverty measurement stood at 54.4% but increased to 69% in 2010. The North-West and North-East geopolitical zones recorded the highest poverty rates in the country with 77.7% and 76.3% respectively in 2010, while the South-West geopolitical zone recorded the lowest at 59.1%. Among States, Sokoto had the highest poverty rate at 86.4%. Similarly, 54.7% of Nigerians were living in absolute poverty in 2004 but this increased to 60.9% (or 99,284,512 Nigerians) in 2010. Among the geopolitical zones, the North-West and North-East recorded the highest rates at 70% and 69% respectively, while the South-West had the least at 49.8% [27]. At the State level, Sokoto had the highest at 81.2% implying the catastrophic impact user-fees will have on the populace that is already predominantly poor.

Hitherto, several campaigns [1,28] have advocated the removal of user fees. Still, the debates about this policy have been so contentious with proponents and detractors advancing their arguments. There is a paucity of literature on out-of-pocket payments and access to healthcare services in North-western Nigeria, and Sokoto in particular where no known study was done. Furthermore, differences in culture, a socio-economic state in Sokoto necessitate it. Hence the study aims to aim to assess the households' pattern of out-of-pocket spending, predictors of access to healthcare and to explore their socio-economic (SES) status differences in paying for their healthcare in Sokoto State.

2. NIGERIAN HEALTH CARE SYSTEM AND FINANCING

Health care delivery in Nigeria is provided by the government with a major input from the private sector which includes private individuals, corporate bodies and churches that own and run organisations offering health care to the public. The government of Nigeria is divided into the federal, state and local governments with each of the three levels responsible for the funding and running of the three tiers of the health sector namely the tertiary, secondary and primary health centres respectively (other healthcare providers are namely – private facilities, traditional care and Patent Medicine Dealers or vendors). The federal government through the Ministry of Health provides the overall policy guidelines and oversight functions for all arms of the health sector. The funding provided by each arm of the government is usually supplemented by money raised from OOPS from the public to make up for the shortfall [29].

There are striking inequities in use of the different providers, with the rural dwellers and poorer SES groups (which is more prevalent in the north-western Nigeria where almost half of the population there are in their lowest wealth quintiles) more likely to use low-level and informal providers, where treatment is usually of questionable quality [30-32]. These low-level providers include the PMDs (or Patent Medicine Vendors), herbalists, the health posts, and other drug sellers. PMDs or PMVs are mainly chemists stores where drugs are dispensed over the counter to patients. Patent Medicine Dealers (PMDs) followed by private hospitals and pharmacy shops are the most commonly used healthcare providers in Nigeria and north-western region in particular [33,34].

A National Health Insurance Scheme (NHIS) was launched in Nigeria in 2005 to ensure adequate

financial risk protection for the masses and to cushion the huge financial burden of health care cost borne by the government. NHIS is financed mainly from taxes, premiums and grants from the government as well as aid from non-governmental organisations and international and donor agencies [35]. Recent evidence shows that NHIS covers less than 5% of the population most of whom are federal civil servants, while other health insurance schemes like private health insurance (PHIS) and community- based health insurance (CBHI) cover less than 1% of the population [36].

In north-western Nigeria, most insurance coverage is employee based (NHIS) which account for only paltry 0.5%; CBHIS accounts for 0.1% and PHIS accounts for none signifying that about 99.4% of people in this region had no health insurance coverage [32] and have to pay for their healthcare throughout – of – pocket payment if they need to utilize healthcare facility.

3. RESEARCH METHODS

3.1 Study Area

Sokoto State is one of the 36 States in Nigeria. It is located in the extreme North-western part of Nigeria. It shares common borders with the Niger Republic to the north, Kebbi State to the southwest and Zamfara State to the east. The state has an estimated population of 4,886,888 in 2015 (projections from the 2006 national census) [37]. The inhabitants of the area are predominantly Muslim and from the Hausa - Fulani ethnic group. The state has 23 Local Government Areas (LGAs), 5 of which are urban and 18 rural. The state is also divided into four health zones with 586 functional health facilities (3 tertiary, 18 secondary and 565 primary health facilities).

This cross-sectional descriptive community – based study was carried out among Household heads in Sokoto, Sokoto State, North-western Nigeria, in August 2015. A multi-stage sampling technique was used to select household heads for the study. It involved five (5) stages namely – a selection of local government areas; selection of wards; selection of settlements; selection of houses which were selected by simple random sampling through balloting. The fifth stage was the selection of households which was done using systematic random sampling method. The participants were recruited from six settlements – Awala and Gidadawa from Wurno LGA; Rungi and Buide from Dange – shunt LGA; Arkilla Federal low – cost and intermediate quarters from Wamakko LGA. Advocacy visit was paid to the Ministry of Local government area affairs, the chairman of selected LGA and traditional leader of each settlement selected where permission to carry out the study was granted. Informed consent was obtained from every respondent. Ethical approval was obtained from the Sokoto state ethical committee.

3.2 Data Collection

A pre-tested semi-structured interviewer-administered questionnaire was administered by trained research assistants to 360 randomly selected households from selected settlements in the 3 LGAs. The sample size was calculated using the statistical formula for estimating a proportion OOPS [38], the prevalence of OOPS from a previous study [14] of 70%, precision of 5% and an anticipated response rate of 90%. All the men (household heads) or in their absence, their wives and if single, male or female occupants who were 18 years and above were invited to participate in the study. Informed consent was obtained and subjects subsequently interviewed.

Data was collected on: types of providers of healthcare often patronized; common health problems (last illness within the last six month); access to healthcare services; barriers (or challenges) to accessing health care; mode of payment for health expenditure was also obtained; information was also obtained on the household – heads' educational and occupational statuses and that of their spouses to compute the households' socioeconomic status (SES) index. Access to healthcare services (formal healthcare providers) was defined as *"have you ever had any problems that affected you seeking healthcare at the healthcare facilities"?* If the response is "no" it is good access and if its "yes", its poor access [39]. It was also defined in the context of *"time spent to hospital from place of residence"* – good access is spending thirty minutes or less ($\leq$ 30 minutes) while poor access ($>$ 30 minutes) [40,41].

3.3 Data Analysis

Oyedeji's method was used to create a continuous socioeconomic status (SES) index, using information from educational and occupational statuses of the household – heads and their spouses [42]. The SES index was

divided into SES quintiles (Q1 – Q5). The quintiles were Q1 (least poor), Q2 (less poor), Q3 (poor), Q4 (very poor), and Q5 (mostly poor) and this was subsequently categorized into upper social class (Q1 – Q3) and lower social class (Q4 – Q5). The socioeconomic status (SES) differences in the payments for health care and other attributes pertaining OOPP was explored using chi-square.

Data were cleaned, entered and analysed using SPSS statistics version 22. Data was presented using graphs and tables for frequencies and percentages of variables (e.g. gender, age, educational status, payment options for health, SES index etc.). Correlation analysis was used as a measure of association between the quantitative variables. Chi-square test was used to compare proportions (e.g. payment options and SES index; SES index and pattern of OOPP for healthcare etc.). Multiple responses were used to find the frequencies of where family member sought for healthcare when ill/sick.

Logistic regression analysis was used to examine the multivariate relationship of access to healthcare with key explanatory variables. The dependent variable was respondent access to healthcare services. The explanatory variables were: whether they paid through user – fees; area of residence (rural-urban); social class; time to hospital and income of respondents. All levels of significance were set at $p<0.05$ at 95% confidence interval.

4. RESULTS AND DISCUSSION

4.1 Results

4.1.1 Socio-demographic characteristics of respondents

A total of 360 questionnaires (13 for Awala; 19 for Gidadawa; 57 for Rungi; 41 for Buide; 160 for Arkilla federal low – cost; and 70 for Intermediate quarters) were administered to the respondents all of which were completely filled and returned giving a response rate of 100%. The mean age of the respondents was 41.7 ± 12.6 years (Table 1). Majority of the respondents were males. About half 164 (45.6%) of the respondents were civil servants and seven were students. Most of the respondents were Hausa 290 (81.9%), 230 (63.9%) were urban residents. The average family size was 8.16 ± 5.6 (Fig. 1).

4.1.2 The pattern of out – of – pocket payments for healthcare among respondents

About half (42.9%) of those that were ill suffered from Malaria (Table 2). This was followed by diarrhoea (9.8%) disease; regarding where they sought for treatment, Patent Medicine Dealers (PMDs) 264 (27.4%) were the most common providers visited for healthcare followed by teaching hospital 203 (21.0%) while traditional care was visited least 75 (7.8%). Despite having enrolled two-thirds of the respondents from the urban area, the majority of the respondents 337 (93.6%) paid for their healthcare through OOPS.

Table 1. Socio-demographic characteristics of respondents

Variables	Frequency (%)
Age in years	
20 – 29	56 (15.6)
30 – 39	109 (30.3)
40 – 49	85 (23.6)
50 – 59	75 (20.8)
60 and above	35 (9.7)
$\bar{X}$ = 41.7 ± 12.6 years	
Gender	
Males	294 (81.7)
Females	66 (18.3)
Marital Status	
Married	322 (89.4)
Single	30 (8.3)
Divorced	1 (0.3)
Widow	6 (1.7)
Religion	
Christianity	10 (2.8)
Islam	347 (96.4)
Others (no religion)	2 (0.6)
Educational Status of Respondents	
None	22 (6.1)
Primary	36 (10.0)
Secondary	91 (25.3)
Tertiary	157 (43.6)
Quranic only	54 (15.0)
Socio – economic status Index of Households	
Upper social class (Class I – III)	221 (61.4)
Lower social class (Cass IV – V)	139 (38.6)

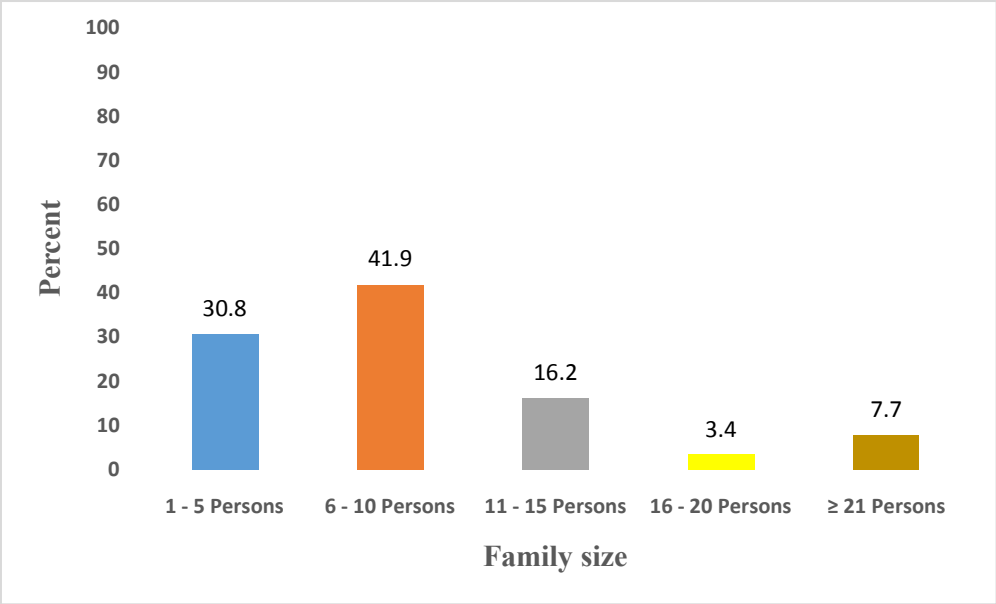

Fig. 1. Family size of Households

Table 2. Types of healthcare providers patronized, health problems commonly seen and modalities of payments for healthcare among respondents

Variables	Frequency (%)
Types of Healthcare Providers often Patronized	
Patent Medicine Dealers (PMDs)	264 (27.4)
Teaching Hospital	203 (21.0)
Home	151 (15.6)
General Hospital	129 (13.4)
Primary Health Care	112 (11.6)
Traditional care	75 (7.8)
Private Hospital	31 (3.2)
Health Problems (common)	
Malaria	57 (42.9)
Diarrhoea disease	13 (9.8)
ANC	10 (7.5)
Hypertension	7 (5.3)
Tuberculosis	1 (.3)
Meningitis	1 (.3)
Diabetes	9 (6.8)
Abdominal pain	8 (6.0)
A severe cough	7 (5.3)
Skin Rashes	10 (7.5)
Trauma following accident	10 (7.5)
The modality of Payment for Healthcare	
Own money	325 (90.5)
Contributions	11 (3.1)
Borrowed money	1 (0.3)
Private Health Insurance Scheme (PHIS)	1 (0.3)
National Health Insurance Scheme (NHIS)	21 (5.8)

NB: Teaching hospital is same as tertiary health facility while a general hospital is same as a secondary health facility

4.1.3 Socio-economic status differences in payment for healthcare among respondents

One hundred and twenty-one (79.6%) of those that treated themselves at home were in the upper social class (Table 3); Majority 49 (63.6%) of those that patronized traditional care were in the lower social class; 175 (63.3%) of those that patronized PMDs were in the uppers social class; 87 (75.7%) of those that patronized the PHC were in the lower social class; 152 (66.4%) of those that patronized General hospital were in the upper social class; 175 (86.2%) of those that patronized teaching hospital were in the upper social class and these were statistically significant at $P < .05$.

There was no statistically significant difference in the outpatient health conditions reported by the respondents across the social class. One hundred and thirty-seven (40.7%) of those that paid through user – fees were in the lower social class and this was statistically significant.

4.1.4 Access to healthcare services

Majority of the respondents 274 (76.1%) spent ≤ 30minutes (good access) to access healthcare services from their place of residence. Over half of the respondents 207 (57.8%) had at least a problem that prevented them seeking care at the health facility (Table 4); 136 (65.4%) of them was due to money; 69 (33.2%) was due to the attitude of healthcare workers while 19 (9.1%) was due to distance to the facility. Among households that paid through OOPS, 201 (60.0%) of them had poor access to healthcare services while among those that did not pay through user-fees only 6 (26.1%) had poor access to healthcare services and this difference was statistically significant (Table 5).

4.1.5 Effect of user – fees on access to healthcare among respondents

Table 6 reveals that households that used user-fees payment option were about 3 times more likely to have poor access to health care

Table 3. Socio-economic status differences in payment for healthcare and the type of healthcare providers patronized among respondents

Variables	Social class		Test statistics, p-value
	Lower	Upper	
User – fees			
Yes	137 (40.7)	200 (59.3)	$X^2 = 11.4$, $P = .001$*
No	1 (4.5)	21 (95.5)	
[a]Home (Self – medication)			
No	107 (51.7)	100 (48.3)	$X^2 = 36.3$, **$P < .001$***
Yes	31 (20.4)	121 (79.6)	
Traditional care			
No	90 (31.8)	193 (68.2)	$X^2 = 25.9$, **$P < .001$***
Yes	49 (63.6)	28 (36.4)	
PMDs			
No	46 (50)	46 (50)	$X^2 = 6.8$, **$P = .009$***
Yes	93 (34.7)	175 (63.3)	
Primary Health Centres			
No	52 (21.3)	192 (78.7)	$X^2 = 97.3$, **$P < .001$***
Yes	87 (75.7)	28 (24.3)	
General Hospital			
No	77 (33.6)	152 (66.4)	$X^2 = 6.6$, **$P = .01$***
Yes	62 (47.3)	69 (52.7)	
Teaching Hospital			
No	111 (70.7)	46 (29.3)	$X^2 = 121$, **$P < .001$***
Yes	28 (13.8)	175 (86.2)	
Private Hospital			
No	129 (39.4)	198 (60.6)	$X^2 = 1.3$, $P = .255$
Yes	9 (29)	22 (71)	

**P <.05; a – treatments received at home were namely for – malaria, diarrhoea, cough (chest infections, body pains, typhoid fever and body rash.*

Table 4. Association between user-fees and access to healthcare services

Payment options	Access to healthcare services		Test statistics and P-value
	Good access N (%)	Poor access N (%)	
User-fees	134 (40.0)	201 (60.0)	X^2 = 10.15, *P* = **0.002***
No User-fees	17 (73.9)	6 (26.1)	

**P <.05*

Table 5. Access to healthcare services

*Variables	Frequency (%)
Time spent in hospital from a place of residence	
≤ 30minutes (good access)	274 (76.1)
>30 minutes (poor access)	57 (15.8)
Has any problem ever affected you're seeking care at the health facility?	
No (good access)	151 (42.2)
Yes (poor access)	207 (57.8)
Prevailing Conditions preventing respondents from seeking care at the health facility*.	
Money	136 (65.4)
The attitude of health care workers	69 (33.2)
Availability of drugs and supplies	61 (29.3)
Their spouses	33 (15.9)
Culture	31 (14.9)
Religion	30 (14.6)
Relatives	21 (10.1)
Distance	19 (9.1)

**Multiple responses*

Table 6. Adjusted odds of OOPS and other factors on Access to Healthcare Services

Variables	B	P value	OR	95% CI for OR	
				Lower	Upper
User-fees status *(**Yes**/No)*	1.117	**.026***	3.06	1.14	8.20
Area of residence *(**Urban**/Rural))*	-0.026	.928	.974	.554	1.71
Social status *(**Lower**/Upper)*	1.031	**.000****	2.80	1.59	4.94
Time to hospital ***(>30min**/≤ 30min)*	0.001	.057	1.00	1.000	1.002
Income ***(<N18,000**/≥ N18,000)*	0.000	.553	1.00	.999	1.001

**P <.05 ** P<.001*

compared with those that did not use user-fees and this was statistically significant after controlling for the effect of area of residence, social class, time to hospital and income (OR = 3.06, P = 0.026, 95% CI [1.14–8.20]). Households in the lower social class were about 2.8 times more likely to have poor access to health care compared with those in the upper social class and this remained statistically significant after controlling for payment option, area of residence, time to hospital and income (OR = 2.8, P<.001, 95% CI [1.59–4.94]).

5. DISCUSSION

Ensuring that people are not denied access to healthcare services because they cannot afford it has long been a cornerstone of health financing system in many countries. The primary goal of health financing is to fund the health system in a manner which ensures all individuals have access to required health care services. This requires reducing or eliminating the possibility that an individual will be unable to pay for required services, or be impoverished

as a consequence of accessing healthcare [43].

This study revealed the mode of payment for healthcare services. This was through own money (personal sources), contributions from relations or friends, borrowed monies or through pre-payments (NHIS or PHIS). On the whole, 94% of payments were through OOPS with most respondents having to source for funds from own monies. This is much higher than the average national OOPS placed at 70% [14] and 69% from a study done among government employees in Abakaliki, Ebonyi state [44], a little higher than 90% reported in a study done in two states (Anambra and Enugu) [16] but similar to 98% reported in Delta state [39]. This indicates the catastrophic effects that user-fees OOPS can have on the poor people compared to the rich when they need to access healthcare in the study setting, particularly when this payment exceeds a certain fraction of their income or non-discretionary income.

There was a statistically significant association between social class and OOPS, only 4.5% of respondents that did not use user – fees in the lower social class while the remaining 95.5% were in the upper social class. This can lead individuals to either delay or not seek healthcare at all creating inequity in access to healthcare services. Some of the inequity might be explained by urban-rural differences especially taking into consideration that the poorest people usually resident in the rural areas and options for healthcare payments are also more limited in this area considering the fact that community financing for health (including Community Based Insurance Scheme) a scheme whereby households in a community finance or co-finance their health is still not widely instituted in this country.

Furthermore, the majority of those that were in the lower social class patronized traditional care and PHC while most of the respondents in the upper social class patronized PMDs, General hospital, teaching hospital and also treated themselves at home and these differences were statistically significant. There was no statistically significant difference in the patronage of the private hospital across social class. This is similar to a study done in Enugu and Anambra in 2011 that revealed striking inequities in use of the different providers, with the rural dwellers and poorer SES groups (lower social class) more likely to use low - level and informal providers (herbalists the health post and other drug sellers), where treatment is usually of questionable quality [45-47].

User-fees paid through OOPS, which has been universally recognized to be very retrogressive, was the most common payment mechanism used to pay for care by both social classes. The effect of OOPS is conceivably worse on the poorest households as they are more likely to have higher occurrences of catastrophe due to healthcare payments through OOPS. As revealed in the study, 60% of households that paid through user-fees had poor access to healthcare services compared to those that did not pay through user-fees and this was statistically significant [X^2 = 10.149, P = 0.002]. This is similar to the finding from a study done in Delta state, Nigeria where the majority (60.7%) of the respondents had difficulty in accessing quality health services as they had to make 'formal' OOPS for healthcare services [39]. This is higher than 36% reported in an earlier study done in Delta state; about half (47.7%) of those who reported their difficulties in accessing quality healthcare services as a result of financial hardship resolved to self-medication [44].

This study showed that households that used user-fees payment option were three times (3) more likely to have poor access to health care compared with those that did not use user-fees and this was statistically significant. This is supported by the result of a study done in Delta state, Nigeria which showed that borrowed monies and contributions from relatives were the main reasons for not seeking healthcare at the tertiary health services [39]. Earlier studies in Nigeria showed that user fees paid mostly through out-of-pocket spending (OOPS) is an impediment to accessing healthcare services [48, 49]. This observation is also in keeping with findings of other studies which revealed that there has to be prepayment through health insurance for there to be an effective access to healthcare services especially, highly costly personal care [50]. In addition to affording protection against having to pay OOPS and as a result facing barriers to access healthcare services, prepayment makes it possible to spread financial risk among members of a pool.

A study on inequities in access to and utilization of maternal healthcare services in Ghana after user-fees exemption showed marginal increases in accessibility to and utilization of skilled antenatal, delivery and postnatal care services

following the policy implementation (2003–2007) [51]. The result of this is also consistent with a study done in Brazil that revealed that even in the presence of geographic access and cultural barriers, the high and unpredictable cost associated with delivery at health facilities acts as a serious deterrent to seeking assisted care at facilities [52]. This is also in line with a study done in Greece which showed that 24.8% of the interviewees faced increased difficulties in accessing healthcare services due to geographical barriers, while the corresponding percentage for the economic (user-fees) barriers was 62.8% [53].

Similarly, those in the lower social class were almost 3 times more likely to have poor access to health care compared with those in the upper social class and it was statistically significant. Households in the upper social class are those in social class I – III while households in the lower social class are those in social class IV and V [54]. This finding was corroborated by other studies done in Anambra and Enugu [16,55] that revealed lack of socio-economic status (SES) differentials in use of OOPS by respondents implying that the poor are not protected from the uncertainty of paying for healthcare when ill. This can lead to individuals to either delay or not seek health care at all.

The study also showed that Patent Medicine dealers (PMDs) were more frequently visited than primary health centres (PHC), which are meant to be the first point of treatment for the majority of the population, 70% of which reside in the rural areas for their health illnesses. This leaves most of the households to be attended by PMDs that have little or no skills in treatment depriving them access to treatment at the primary care level and tertiary care in particular. Furthermore, other factors that may predispose them to visit PMDs includes distance from the facility (PHCs are far from the place of residence), prolonged waiting times, unpleasant behaviours of the healthcare workers etc. Similar findings have been found in other studies in Nigeria and elsewhere [46,47,56,57].

It was worth noting that none of the households paid for their health through community financing of Community-Based Insurance Scheme (CBIS) which can fund the health care of not only the formal sector which makes up 5% of the population that is covered by NHIS, but mainly the informal sector which is not captured by the NHIS or PHIS. In addition to affording protection against having to pay out-of-pocket and as a result facing barriers to access healthcare services, pre-payment (through CBIS, NHIS and PHIS) makes it possible to spread financial risk among members of a pool. User-fees individual out-of-pocket financing does not allow financial risk to be shared in that way [43].

6. CONCLUSION

Almost all respondents in this study paid for their healthcare through OOPS. Households in the lower social class were likely to use user-fees as a mode of payment for their healthcare. Households in the lower social class patronized traditional care and PHC while most of the respondents in the upper social class patronized PMDs, General hospital, teaching hospital and also treated themselves at home. Households that paid through user-fees were more likely to be denied access to healthcare. The study further observed that Malaria was the main illness suffered by most of the households and PMDs were the most visited for healthcare.

This study brought to the fore that user-fees (or formal OOPS) may negatively affect access to healthcare services resulting into inefficiencies and inequities among the populace, particularly the poor. The Federal Government should explore and improve other sources of financing that are efficient, equitable, fair and sustainable. This should include social health insurance scheme like Community financing and National Health Insurance Scheme (NHIS). There is a need to scale-up fee waivers and exemptions for those who cannot afford to pay for their services and the vulnerable groups (children under-5, pregnant women and elderly).

CONSENT

As per international standard or university standard, patient's written consent has been collected and preserved by the authors.

ETHICAL APPROVAL

As per international standard or university standard, written approval of Ethics committee has been collected and preserved by the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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