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Out of pocket spending for healthcare services: a study assessing the relationship between payment methods and perceived satisfaction with the quality of care in a tertiary health facility in Delta State, Nigeria

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KEYWORDS

out-of-pocket payment,

user fees,

quality,

tertiary health services;

Nigeria.

ABSTRACT

Objective:
To assess the relationship between payment methods in a tertiary health facility and clients perceived quality of care.
Method: This was a cross-sectional descriptive study. The instrument was a pre-tested, semi-structured self-administered questionnaire. Descriptive statistics as well regression analysis was done to show statistically significant associations.

Results:
The findings reveal different modes money was made available for payment for health services. On the whole, about 98% of payment was through out-of pocket spending (user-charges) with most respondents using their own money. Although this financing method shown to be associated with good quality service delivery as perceived by the respondents', however it remains a regressive mode of paying for health services.

Conclusion:
The findings from this study have brought to the fore that out-of-pocket payments for health services can be an effective mechanism for achieving desired healthcare delivery in tertiary health care. However, there remain the problems of inequities in tertiary healthcare coverage. This suggests that charges levied for tertiary health services should therefore be linked to the broader package of financing through health insurance coverage.

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Introduction

In many developing countries, various methods are being used to source funds to make payments for health services.[1] Of such includes contributions from families, borrowed money etc.[2] These funds which are often payed directly at the point of service in these countries have being described as user-fees. [1,2] Of note is that in Nigeria, these fees remains the major strategy for paying for healthcare.1 Remarkably these fees often referred to as out-of-pocket spending (OOPS) are formal charges levied at the point of use for any aspect of health services and they may be charged as registration fees, consultation fees, fees for drugs and medical supplies or charges for any health service rendered, such as outpatient or inpatient care[1,2] Although, these charges have been deemed as a regressive form of health care financing3, it became a 'norm' in the Nigerian healthcare delivery sector after the rapid fall in government annual appropriation for health in spite of escalating demand for health services.[2]

In Nigeria, formal charges levied at the point of service was introduced as a mode of financing

government's health services within the framework of the Bamako initiative of 'revolving drug funds'.[4] Of note is that this financing mechanism and drug revolving funds are inter-linked.

This was debatably in response to the unrelenting struggle in financing health services in the country, as with most countries in the sub-Saharan African region.4 Despite this, it has been argued that the existing challenge of healthcare financing in the country as in many other countries in sub-Saharan Africa does not primarily depend on the unavailability of scarce resources, but on the absence of intermediation and pre-payment mechanisms to manage risks, inefficient resource allocation and purchasing practices.[5,6] Paying at the point of service has so far created debates of its possible effects on healthcare delivery. It has been suggested that it creates inefficiencies in health service delivery by crowding-out utilization of services and worsening the already inequitable access to quality care while exposing households to the financial risk of expensive illness at the time of need.[7,8]

Nevertheless, some analysts and donors agencies have argued that formal charges for health services delivery will among many other things improve efficiency in utilization of services by diminishing 'frivolous' consumption of health services, through rational utilization of these services.[7-9] In spite of this, it is argued that these payment mechanism in health services has been a hindrance towards the actualization of universal health coverage.[10] Health economists posit that strengthening health systems and achieving universal health coverage requires efforts geared towards reducing barriers; particularly economic, financial or cultural barriers, as well as those relating to the demand for healthcare services care.[2,3] The dispute is that the excessive reliance on these fees decreases demand for healthcare, 'scales-up' inequitable access to quality care, and exposes households to the financial risk of expensive illness at the time of need. Several campaigns have advocated for reforms and strategic amendments to this payment mechanism. [11,12] In fact, debates about this have been so contentious with proponents and detractors advancing their arguments.

Despite the importance attached to these debates, in the Nigerian context, a paucity of empirical evidence precludes informed debates and evidence-based policy making, as against other developing countries such as Rwanda, Tanzania and Uganda.[6,7,10] Although, some authors[13,14] have attempted to provide evidence in view, there is still the need to provide an updated research evidence with emphasis on service delivery. More so, the growing need for tertiary health services and the underpinning of demand-driven health service delivery in the Nigerian health market necessitates the need to provide evidence for health care delivery.

Using a cross-sectional approach, this study intended to analyse the effects of the methods used to source for funds for paying for health services (constituting direct payments) for healthcare on perceived quality provision (i.e on patient's waiting time, attitude of health care workers to patients, the effectiveness in terms of the perceived outcome and overall perceived satisfaction) in a tertiary healthcare in Delta State, Nigeria. Nevertheless, it was not

within the scope of the study to show the effectiveness of payment patterns on changes in health outcomes based on the quality of care given.

Methods

The study was a descriptive cross-sectional study conducted from February to July, 2014. The study population consisted of adult out-patients requiring specialist attention in the Delta State University Teaching hospital Oghara; a tertiary health facility in a semi-urban community in Ethiope West Local Government Area of Delta State. The rationale behind this choice was to secure enough similarities in terms of contexts (e.g. population coverage by such level of care) and constraints (e.g. level of development of tertiary healthcare delivery). A simple random sampling technique with proportionate monthly out-patient attendance was used to recruit 470 respondents from the medical, surgical, and obstetrics and gynaecological out-patient departments (OPDs) of the hospital. Sample size estimation was determined using the formula for estimating minimum sample size for descriptive studies when studying proportions with entire population size <10, 000.13 The paediatric OPD was excluded due to the problem of getting informed consent from children.

The study instrument was a pre-tested, semi-structured self-administered questionnaire. The questionnaire schedule elicited information on the demographic characteristics of the respondents: age, sex, tribe, marital status, income status, type of occupation.

Some of the questions asked included: *(i.) How do you pay for healthcare rendered to you?'' (ii.) Do you feel that the way you have to pay for care makes you seek care when necessary? (iii.) ''How satisfied are you with the time spent waiting to be attended to by the doctor? '' (iv.) ''What is your view of the attitude of the health workers in the hospital? '' (v.) ''how satisfied are you with the charges for the services rendered in this facility with the performance of the healthcare providers? '' (vi.) Do you get the kind of care you desire i.e do you feel well after treatment?*

The data generated were analysed using statistical package for scientific solutions (SPSS 16.0 version). Chi-square test and regression analysis were used to assess the associations between variables, and the associations were considered significant at $p<0.05$. Ethical approval was obtained from the health ethics and research committee of the Delta State University Teaching Hospital Oghara.

Results

Of the 470 respondents recruited, responses were obtained from 459 clienteles visiting the OPDs of medical, surgical, obstetrics and gynaecological departments for specialists' health care in Delta State University Teaching Hospital.

Demographic characteristics of respondents:

Findings from Table I showed that the average age of the respondents was 36.48 years with a standard deviation of 12.51. The majority of them were females 297 (64.7%) with a male: female ratio of 0.54:1 and the majority of the respondents were married (65.6%), while 33.1% were single and approximately 1% were either divorced, co-habiting or widowed. Findings showed that of those employed; those working in public services (civil and public servants) were the majority at 27.2%, private

employees at 23.5%, self employed 19.1% of the total occupational status respectively. However, a significant proportion of the respondents were unemployed at 29.6%. More so, the results of their average monthly income showed that most of the respondents (41.3%) earned less than N18, 000 (109 USD) per month which is the approved minimum pay in the public service in Nigeria, see Table II.

Table I: Demographic characteristics of respondents

Characteristics	Frequency	Percentage (%)
Sex		
Male	161	35
Female	298	65
Total	459	100
Marital Status		
Single	152	33.1
Married	301	65.6
Divorced	2	0.4
co-habiting	2	0.4
Others	2	0.4
Total	459	100
Mean Age of respondents (36.48**)**	**Standard Deviation (**12.51**)**	

Table II: Occupation and estimated monthly income

Characteristics	Frequency	Percent (%)
Occupation		
Self employed	88	19.1
Public sector	125	27.2
Private sector	108	23.5
Unemployed	136	29.6
Income status		
Q_1 = less than ₦18,000	189	19.1
Q_2 = ₦ 18,000 to ₦ 45,000	131	27.2
Q_3 = ₦ 45,000 to ₦ 100,000	109	23.5
Q_4= > ₦ 100,000	31	29.6
Total	459	100.0

Note: As modified from the revised national minimum wage amendment act (2011), income status was categorized into quintiles (Q1-Q4).

Methods of sourcing funds and paying for health services:

From Table III, it was found out that there were different methods of sourcing funds in order to pay for health services. The results revealed that this was through one of each which included: own money (personal sources), contributions from relations or friends, borrowed money or via pre-payments (health insurance). While most of them sourced from their own money (49.0%), others sourced funds through contributions (27.5%), borrowed money (20.5%) or via pre-payments (health insurance) (3.0%). Nevertheless, 97.0% had to make payments directly at the point of service i.e OOPS with the majority of the respondents (73.2%) being of the opinion that having to pay at the point of service is a difficult experience for them.

Table III: Mode of sourcing funds for paying for health services

Methods of sourcing funds	Frequency	Percent
Own money	225	49.0
Contributions	126	27.5
Borrowed	94	20.5
Health insurance	14	3.0
Total	459	100.0

Table IV: Experience difficulty in paying for services

	Frequency	Percent (%)
Yes	336	73.2
No	123	26.8
Total	459	100.0

Methods of funding and perceived satisfaction with the quality of health services delivery

The study assessed respondents' perceived satisfaction of the quality of care given in the tertiary health facility in relation to the patterns of sourcing funds for paying for health service delivery. Using a modified likert scale domains on the quality of care assessed included patient's waiting time, attitude of health care workers to patients, the effectiveness in terms of the perceived outcome(s), and the overall perception with the services being provided (see Table VI). Respondents had varying views of the quality of care being received in the hospital facility. Accordingly, the findings revealed that 37.1% of the respondents were dissatisfied with the waiting time to see a health

care provider (usually the doctor) even though they had to pay for the services directly, while 32.7 % were satisfied and 38.3% were indifferent. However, about 40% felt satisfied with amount of money being payed at the point of service for the kind of care received. This constituted the majority of the respondents who were satisfied with the charges for the kind of care being given. The association between methods used to source for funds and satisfaction with the care given for paying at the point of service was statistically significant (X2 p-value = 0.001).

The perception was that having money (i.e "physical cash") and being able to pay for such services at the point of care increases the likelihood of receiving care and health improvement. This could further be explained from the analysis which showed a statistically significant relationship between income status and methods used to source money for payments (X2 p-value = 0.021), see Table V. More so, about 83% of those surveyed believed that the quality of care provided increases the likelihood of improved health outcomes despite the methods used to source funds and making payments directly. Additionally, the study showed that a significant percentage (34.6%) felt satisfied with health care providers' attitude, although less when compared with those who were not (39.7%). However, it was difficult to show if the association was statistically significant. Notwithstanding, the overall satisfaction of the performance of health care providers was high with 62.4% being satisfied.

It was also shown by regression analysis that payment being made at the point of service by different modes of sourcing for money was associated with higher satisfaction with the performance of service delivery (quality of care). The findings showed that borrowed funds and contributions contributed more to the perceived satisfaction with receiving better care and these were statistically significant at (β= 460; SE = .197, p =.019) and (β= 460; SE = .197, p =.019) respectively.

Table V: Cross Tabulation between social (income) status and the satisfaction with care given

	Overall how satisfied are you with care given		
Social status	**Satisfied**	**Dissatisfied**	**Total**
Q_1	116	73	189
Q_2	72	60	132
Q_3	73	34	107
Q_4	25	6	31
Total	286	173	459

X^2 = 9.762 df= 3 p-value= 0.021

Table VI: Experiences of respondents with satisfaction of quality domains (modified likert scale)`

Domain responses	Prompt attention & waiting time (%)	Consultation fees (%)	Health workers attitude (%)	Desired health outcome (%)	Overall satisfaction (%)
Very satisfied	60(13.2)	42 (9.8)	47(10.2)	49(10.7)	
Satisfied	115(25.3)	142(30.9)	103 (22.4)	110(23.9)	**286 (62.4)**
Neutral	130(28.6)	96 (20.9)	105 (22.9)	118 (25.7)	
Dissatisfied	126 (27.5)	105(22.9)	172 (37.5)	154(33.6)	**173 (37.6)**
Very Dissatisfied	25(5.4)	43(9.46)	28 (6.1)	28(6.1)	
Total	459(100)	459 (100)	459 (100)	459(100)	459 (100)

Note: Only binary variables "Satisfied" and "Dissatisfied" were collected for the domain: Overall satisfaction.

Table VII: Mode of sourcing funds for health services and perceived satisfaction with the quality of care (binary logistic regression)

						95.0% C.I for Exp **(β)**	
Variables	β	S.E.	Wald	df	Sig.	Exp(β)	Lower	Upper
Own Money	.456	.299	2.315	1	.128	1.577	.877	2.386
Borrowed	.236	.111	4.514	1	.034	1.266	1.018	1.574
Contributions	.194	.075	6.718	1	.010	1.215	1.049	1.407
Health Insurance	.096	.151	.404	1	.525	1.101	.819	1.481
Constant	-1.314	.315	17.413	1	.000	.269		

Cox & Snell R Square = .041 Nagel kerke R Square = .055

Discussion

As the debates about formal out of pocket spending for health services remain contentious, with proponents and critics advancing their arguments, designing policy reforms for improving health care financing in Nigeria requires valid and reliable evidence. This is because efforts geared towards achieving universal health coverage necessitates sustainable and equitable health financing mechanisms. However, an overview of the literature reveals a dearth of evidence of the debates regarding user-fees in health care delivery (particularly in tertiary health services) in Nigeria. To this end, the author's main contribution is in the attempt to provide evidence within the scope of the research of the modes used to source for money to make out-of-pocket spending (user-fees) and the effects on clientele's perceived satisfaction with the quality of healthcare in a tertiary health centre in Delta State, Nigeria. Nevertheless, it was not within the scope of the study to show the effectiveness of these fees on changes in health outcomes based on the quality of care given in the facility. Thence, the findings identified in the research provide 'some degree of' evidence of its relationships with healthcare delivery with a number of key issues identified.

Firstly is with the methods (modes) employed by clienteles to pay for health services in the facility. The result reveals different modes money was made available for payment. While it was shown that this was through own monies (personal sources), contributions from relations or friends, borrowed monies or via pre-payments (health insurance), on the whole, about 97% of payment were through formal out-of pocket spending (OOPS) with most respondents having to source for funds from own monies. The OOPS in the facility is much higher than the average national OOPS placed at 65-70%.[15,16] However, assessing the quality of care showed that most the respondents felt satisfied with the overall quality of care .

This study brought to the fore the fact that a majority of the respondents (at 62.1%) were on the average satisfied with the overall quality of care provided with having to pay at the point of service in most instances despite that they did not have any pre-payed package to mitigate the challenges of sourcing funds for healthcare. Interestingly, it appeared that despite poor pre-payment (health insurance) for health services by the respondents, it did not appear to impact significantly on the perceived quality of care given by the respondents. Some authors have suggested that the administrative problems with pre-payment schemes so far has made them unattractive to hospital clientele and health care providers.[17,18] Additionally; the study revealed that despite the retrogressive nature of these financing mechanism, most respondents (62.1%) felt satisfied with the quality of care given in the facility despite having to pay at the point of services. This could be explained from the fact that ''having cash-in-hand'' made these respondents pay for services and get their needed health outcome. It is possible that unemployment (29.6%) and having a low income (Q1) (41.2%) accounted significantly for collecting contributions and borrowing funds to pay directly, more so, the unavailability of pre-payment schemes contributes for the payment methods. However, we did not assess the relationship between socio-economic factors and the domains of quality of care given. It could therefore be seen as an effective financing mechanism in terms of increasing the likelihood of desired health outcomes, notwithstanding the problems of inequities and inefficiency with OOPS continues.

Conclusion:

The findings from this study has brought to the fore that formal out-of-pocket payments is an effective mechanism for achieving desired health outcomes in tertiary care. This is because most of the respondents felt satisfied with the quality of care delivered despite having to pay out of pocket. Notwithstanding, there remains concerns with the problems of inequities (both vertical and horizontal) in tertiary health coverage. The evidence so far suggests that this method alone will not accomplish universal health coverage or the sustainability objectives in health financing in the country. Despite this, the recently introduced national health insurance scheme (NHIS) is not likely to have significant impact on health care financing in the near future. This is because it presently covers an insignificant proportion of the Nigerian populace, with only federal government civil servants benefiting from it as enrolees. This suggests that charges levied for tertiary health services should therefore be

linked to the broader package of financing through health insurance coverage. More so, there may be need to scale-up fees-waivers and exemptions for those who can't afford to pay for all their health service but 'desperately' need care to improve their health status. Ultimately, as commitments to improving healthcare delivery in Nigeria continue, policy makers and all stake holders in healthcare delivery should awaken to the responsibility of reforms in financing the tertiary health system in Nigeria.

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Ethical issues:
Ethical approval was given by the health research and ethics committee of Delta State University Teaching Hospital, Oghara Delta State.

Competing interests:
The author declares that he has no competing interests. The views and opinions expressed in this article are those of the author and do not reflect the official policy or position of any agency.

Author's contribution
U.J.E is the author of the manuscript

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