FACTORS INFLUENCING HEALTH-SEEKING BEHAVIOUR AMONG CIVIL SERVANTS IN IBADAN, NIGERIA

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ABSTRACT

Background: **Health-seeking behaviours (HSB) are closely linked with the health status of a nation and thus its economic development. Several studies have described HSB within the context of various diseases. However, knowledge of HSB among population sub-groups is still scanty. This study aims to determine factors most important to civil servants when seeking health care.**

Methods: **A descriptive cross-sectional study was conducted among 337 civil servants working in the Federal Secretariat, Ibadan, Nigeria. An interviewer-administered semi-structured questionnaire was used to collect information. Chi-square tests were used to test for associations while binary logistic regression test was used for determining predictors. All data analysis were done at 5% level of significance.**

Results: **Members of the poorest quartile were 6 times more likely to have inappropriate HSB than the richest quartile (Q4:Q1= 5.83;O.R: 16.12, 95% C.I: 2.61-11.03). Visits to the hospital or clinic (62.2%) was the most common source of healthcare sought. This was followed by visits to the chemist (33.0%), traditional healers (4.3%). A little more than one-third (34.5%) of respondents considered good service delivery as the most important factor affecting HSB. This was followed by proximity (23.9%), affordability (20.4%), prompt attention (8.8%) and readily-available drugs (7.1%). Completing only basic education [O.R: 0.24 (0.06, 0.96)] and out of pocket payment [O.R: 0.04 (9.16, 82.45)] were associated with a reduction in the likelihood of seeking healthcare from formal sources.**

Conclusion: **Appropriate health-seeking behaviour was found to be high among civil servants. However, lower cadre workers and those with lower levels of education need to be targeted during policy formulation to improve health-seeking behaviour. In addition, health insurance schemes should be extended to cover more of the population in order to improve health-seeking behaviour.**

Keywords: Health seeking behaviour, Civil servants, Healthcare provider, Service-based characteristics.

INTRODUCTION

Healthcare seeking behaviour (HSB) has been defined as, "any action or inaction undertaken by individuals who perceive themselves to have a health problem or to be ill for the purpose of finding an appropriate remedy".[1] Health seeking behaviour can also be referred to as illness behaviour or sick-term behaviour. Health seeking behaviour is situated within the broader concept of health behaviour, which encompasses activities undertaken to maintain good health, to prevent ill health, as well as dealing with any departure from a good state of health.[2]

Studies that have attempted to describe factors that significantly affect health seeking behaviour during illness episodes can be broadly classified into two groups.[2-4] The first group are studies which emphasize the utilization of the formal system, or the health care seeking behaviour of people. The studies that fall under this category involve the development of models that describe the series of steps people take towards health care. These models are sometimes referred to as 'pathway models'.[5] While there are several variations of these models, the Health Belief Model and Andersen's Health Behaviour Model are often used as a basis in discussions involving HSB.[5,6] The second group comprises those studies which emphasize the process of illness response, or health seeking behaviour. These studies demonstrate that the decision to engage with a particular medical channel is influenced by a variety of factors such as socio-economic status, sex, age, the social status, the type of illness, access to services and perceived quality of the service.[7,8] Majority of the studies under this second category focus on specific genres of determinants which lie between

patients and services such as geographical, social, economic, cultural and organizational factors.[9-11] For example, access to health facilities, socio-economic status and perceived quality of service have been found to be significant influencers of health seeking decisions among different population segments.[9,12,13]

Inappropriate HSB has been linked to worse health outcomes, increased morbidity and mortality and poorer health statistics.[14,15] Research into HSB in LMICs suggests several factors influence the HSB of the population and certain segments of the population are more likely to use appropriate HSB than others. Inappropriate HSB and its previously mentioned effects have been found to be skewed among different population segments. For example, in Pakistan, households whose average income was below the minimum wage were less likely to seek formal medical care for their illness than those whose incomes were above the minimum wage.[16] In Kenya, almost 70% of pregnant women within households in the upper socio-economic stratum were found to have their deliveries in health facilities compared with 42% among pregnant women in the middle socio-economic stratum and 38% in the low socio-economic stratum.[13]

In a study in Nigeria, as many as 71% of rural dwellers have reported inappropriate HSB during their last illness episode while only 53% of urban dwellers reported inappropriate HSB during their last illness episode.[17] Similarly, Nigerian women living in areas where the ratio of population to Primary Healthcare Centre (PHC) was high (more than 9,000:1) were less likely to have a skilled birth attendant present during childbirth than areas where the ratio of population to Primary Healthcare Centre (PHC) was lower (less than 6,000:1).[18] This disparity makes it necessary to determine the factors affecting HSB among different segments of the population. This is essential to guide policy formulation and implementation. An important aspect of HSB is the choice of healthcare provider made by people when responding to illness episodes. This study seeks to identify which socio-demographic and health service-based factors influence HSB among civil servants, who represent a sizeable proportion of the working population in the country.

METHODS

Study design

This descriptive cross-sectional study was conducted between August and September 2014 at the Federal Secretariat Complex, Ikolaba, Ibadan, Nigeria. Ibadan is the ancient capital city of Oyo State, located in the south-west of Nigeria. The inhabitants are mainly Yorubas, with clusters of Igbos and Hausas living in several areas. The Federal Secretariat is situated at Ikolaba.

Study population

The population under study were the Federal civil servants working at the Federal Secretariat Complex, Ikolaba, Ibadan. There are 8 ministries and 13 agencies located within the secretariat with a staff strength of 853 working within the Complex as at April 2014. A minimum sample size of 246 was calculated using 5% level of significance, 5% level of precision and 20% as the proportion of people who use appropriate HSB.[19] Selection of respondents was through a multi-stage sampling technique. The first stage involved the selection of 3 ministries and 6 agencies randomly out of the 8 ministries and 15 agencies in the secretariat by balloting. The second stage was the selection of staff in the chosen ministries and agencies. This was done by proportionally allocating the required sample size to the selected ministries and agencies according to their individual staff strength after which required respondents were selected at regular intervals of the sampling fraction. The sampling fraction was obtained by dividing the required number of respondents in the ministry or agency by the total number of staff (Table 1).

Inclusion and exclusion criteria

The study included all Federal civil servants working within the Secretariat who have been employed for at least one year as at the time of the study but excluded all temporary staff or contract staff under the employment of any of the agencies or ministries.

Study variables

In this study, appropriate HSB was defined as consulting a qualified medical professional or seeking healthcare at orthodox health facilities such as private clinics, primary health centres, and general hospitals during illness episodes or any situation requiring medical attention.[10,20] Inappropriate HSB comprises seeking healthcare from patent medicine vendors (PMVs), chemists, traditional healers, family members or doing nothing at all. Traditional healers are nonqualified persons who treat the sick children using traditional nonmedical methods. Patent Medicine Vendors (PMVs) or chemists are nonqualified persons who sell drugs without medical prescription.

Study variables used to determine the factors influencing HSB included socio-demographic subject characteristics such as age, marital status, highest level of education completed, family size and socioeconomic status. Respondents were grouped into wealth quartiles using the Wealth Index and Principal

Component Analysis (PCA). Wealth Index (WI) is one of the methods of evaluating wealth distribution. It is a composite index composed of key asset ownership and is often used as a proxy indicator of level of household wealth.[21] Principal components analysis was employed to produce a factor score for each household based on ownership of certain assets such as fan, radio, television sets, etc. Based on the total factor score of each household, the respondents were then grouped into wealth quartiles (poorest, poor, rich and richest) representing their socio-economic class.[22] Health service characteristics are explanatory factors associated with the performance of the formal healthcare system which can influence HSB.[23] These include accessibility to health facilities, availability of drugs, quality of medical care, and attitude of health workers and affordability of medical care cost. For the purpose of inferential statistics, educational qualification was categorized according to the level of school education completed. Basic education was defined as completing only secondary school education while tertiary education was defined as having any form of formal post-secondary educational qualification. Respondents were also categorized into cadres based on their salary grade level. Junior cadre workers were defined as workers from salary grade level 1 to 6 while mid-level workers are classified as those with salary grade level 7 and 10. Senior level workers are those on salary grade level 11 and above.

Data collection

Data was collected with the aid of interviewer-administered semi-structured questionnaires. Four research assistants who had at least completed secondary school were trained and used for the data collection procedure. The questionnaire was divided into the following sections: socio-demographic information, socio-economic information, HSB patterns of respondents and HSB patterns of their immediate family members. The questionnaire was pre-tested among 40 civil servants of the Ibadan North Local Government Secretariat and necessary adjustments were made.

Data analysis

The data were coded, checked, and processed with version 20 Statistical Package for the Social Sciences. Descriptive statistics, such as means, standard deviations (SD), frequencies, and proportions, were used to summarize variables. Chi-square tests were used to identify associations between categorical variables using a P-value of 0.05 as the significance level. Logistic regression analysis was conducted to determine significant predictors of outcomes with estimation of the odds ratio and 95% CI (Confidence Interval). Only explanatory variables found to be significantly associated in the Chi-square analyses were entered into the logistic regression model.

Ethical considerations

The University College Hospital (UCH) Ethics Review Committee reviewed and approved the study protocol (Approval number: UI/EC/14/0171). Permission and approval to conduct the study was also obtained from the heads of the selected ministries and departments. In addition, the purpose of the study was explained to the participants and their consent obtained before the questionnaire were administered.

RESULTS

Socio-demographic Characteristics

A total of 337 questionnaires were completed out of the 350 questionnaires administered giving a response rate of 96.3%. Exactly 187 (55.5%) of the respondents

Table 1: Distribution of staff and sample size

S/N	MINISTRY/ PARASTATAL	Staff Strength	Minimum Sample size required	Sample size Obtained
1	Ministry of Lands and Housing	88	45	64
2	Ministry Of Works	140	71	101
3	Ministry of Steel and Mines	33	17	24
4	National Commission for Mass Literacy, Adult Literacy and Non-formal Education	70	35	51
5	Office of the Auditor-General of the Federation	24	12	17
6	National Films and Video Censure Board	13	7	9
7	Nigerian Population Commission	15	8	11
8	National Bureau of Statistics	21	11	15
9	National Directorate on Employment	79	40	58
TOTAL		483	246	350

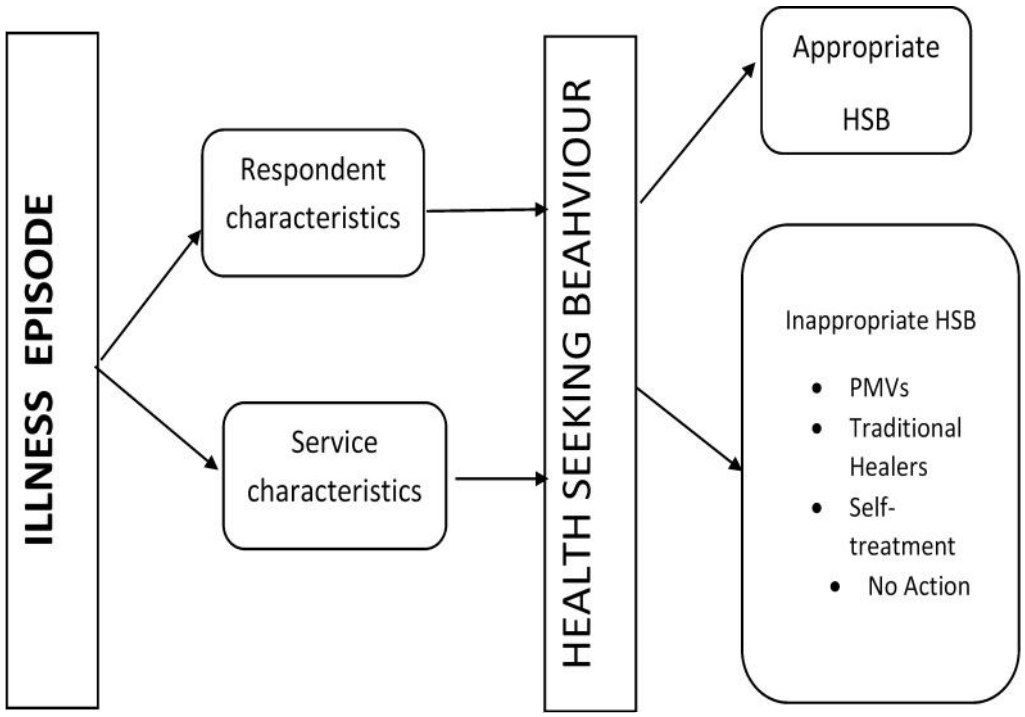

Fig. 1: Framework for the study
(HSB – Health Seeking Behaviour; PMVs – Patent Medicine Vendors)

Table 2: Socio-demographic characteristics (N=337)

	n	%
Gender		
Male	187	55.5
Female	150	44.5
Marital status		
Single	67	19.9
Married	262	77.7
Separated/Divorced	3	0.9
Widowed	5	1.5
Age Group (in years)		
≤ 29	43	12.8
30-39	107	31.8
40-49	110	32.6
≥ 50	77	22.8
Grade Category		
Junior	98	29.1
Mid-level	188	55.8
Senior level	51	15.1
Household size		
≤6	313	92.9
>6	24	7.1
Level of Education		
Basic	96	28.5
Tertiary	241	71.5
Socio-Economic Status (SES)		
Poorest (Q1)	60	17.8
Poor (Q2)	109	32.3
Rich (Q3)	84	24.9
Richest (Q4)	84	24.9

being male and 150 (44.5%) were female. The mean age of the respondents was 41.5 ± 9.6 years with 262 (77.7%) of the respondents being married and 67 (19.6%) being single. Three (0.9%) respondents were divorced or separated from their partners while 5 (1.5%) were widowed. Over half 188 (55.8%) were mid-level workers with 51 (15.1%) working as senior level workers and the remaining 98 (29.1%) were low cadre workers. Two hundred and forty (71.5%) reported having completed tertiary education, only 96 (28.5%) completed only basic education. The mean household size was 4.2 ± 2.1 persons with only 24 (7.1%) respondents having over six members in their household (Table 2). Two hundred and fifteen (63.5%) of the respondents had a health problem within the last month and 187 (86.5%) of them sought treatment. The average delay among those who sought treatment within the past month was 2.5 ± 1.9 days.

Socio-demographic Factors associated with HSB of the respondents

Exactly 37.0% of the male respondents who sought healthcare within the past month and 36.7% of their female counterparts sought care from an informal source. However, a greater percentage of respondents who completed only basic education engaged informal health sources (72.2%) compared to those who used formal health sources (27.8%) as shown in Table 3.

Table 3: Factors associated with HSB of respondents who were sick within the past one month (N=187)

Characteristics	Care sought from informal source		Care sought from formal source		X^2	p-value
	n	%	n	%		
Gender					0.002	0.96
Male	40	37.0	68	63.0		
Female	29	36.7	50	63.3		
Marital Status					0.38	0.54
Currently Single	11	42.3	15	57.7		
Married	58	36.0	103	64.0		
Age Group					1.90	0.59
≤ 29	4	25.0	12	75.0		
30-39	21	42.9	28	57.1		
40-49	23	37.7	38	62.3		
≥ 50	21	34.4	40	65.6		
Level of Education					40.69	<0.01
Basic	39	72.2	15	27.8		
Tertiary	30	22.6	103	77.4		
Grade Level					43.76	<0.01
Junior-level	32	78.0	9	22.0		
Mid-level	33	31.1	73	68.9		
Senior Level	4	10.0	36	90.0		
Household Size					*	0.02
≤6	60	34.5	114	65.5		
>6	9	62.9	4	30.8		
Payment Method					73.17	<0.01
OOP	48	81.4	11	18.6		
NHIS	21	16.4	107	83.6		
Insurance Status					73.43	<0.01
Insured	25	18.4	111	81.6		
Uninsured	44	86.3	7	13.7		
SES						
Poorest	35	70.0	15	30.0	36.83	<0.01
Poor	12	33.3	24	66.7		
Rich	16	34.8	30	65.2		
Richest	6	10.9	49	89.1		
Poorest-richest ratio	5.83		0.3			

**Fishers Exact Test*

A greater proportion of insured respondents (111; 81.6%) used the formal healthcare system as opposed to only seven (13.7%) of individuals without insurance. The association between socio-economic status and health seeking behaviour was also statistically significant with care from the formal health sector being increasing sought as the SES improved. This was with the exception of the rich who had a slightly lower proportion of respondents (30, 65.2%) using formal health care sources than the poor (24; 66.7%)

Reasons for choice of health facility/ health provider utilized

Respondents who had sought healthcare in the past one month were asked what the most important reason for selecting the health provider. With regards to the most important service factor affecting respondents' choice of healthcare provider, 34.5% of respondents considered the good services provided by the provider as the most important reason for their patronage of such provider. This was followed by proximity (23.9%), affordability of services (20.4%), prompt attention (8.8%) and readily available drugs (7.1%). Politeness and courtesy among health workers was least considered a factor in selecting healthcare provider (5.3%).

Affordability (33.3%) was the important reason for selecting health provider among respondents who completed only basic education. On the contrary, affordability was the second least popular reason (6.8%) for selecting health provider among respondents who completed tertiary education.

Table 4: Association between service characteristics and socio-demographic characteristics

	Good services provided n (%)	Readily available drugs n (%)	Near n (%)	Affordable services n (%)	Prompt attention n (%)	Polite Workers n (%)	X * p-value n (%)
Gender							
Male	41(37.4)	13 (12.1)	20 (18.7)	15(14.0)	14 (13.1)	5(4.7)	0.75
Female	33(41.8)	12 (15.2)	14 (17.7)	12(15.2)	7(8.9)	1(1.3)	
Level of Education							
Basic	7 (13.0)	16 (29.6)	12 (22.2)	18(33.3)	1(1.9)	0(0.0)	<0.001
Tertiary	66 (50.0)	9(6.8)	22 (16.7)	9(6.8)	20 (15.2)	6(4.5)	
Marital Status							
Single	5 (20.8)	1(4.2)	6(25.0)	7(29.2)	5(20.8)	0(0.0)	0.06
Married	67 (42.1)	24 (15.1)	27 (17.0)	19(11.9)	16 (10.1)	6(3.8)	
Separated/ Divorced	0(0.0)	0(0.0)	0(0.0)	1(100.0)	0(0.0)	0(0.0)	
Widowed	1(50.0)	0(0.0)	1(50.0)	0(0.0)	0(0.0)	0(0.0)	
Grade Level							<0.01
Junior Staff	2(4.9)	10(24.4)	11(26.8)	16(39.0)	2 (4.9)	0(0.0)	
Mid-level Staff	47(44.3)	15(14.2)	20(18.9)	10(9.4)	12 11.3)	2(1.9)	
Senior Staff	21(61.5)	0 (0.0)	3(7.7)	1(2.6)	7(17.9)	4 10.3)	
Age Group							<0.01
29 and less	4(25.0)	0(0.0)	3(18.8)	5(31.2)	4(25.0)	0(0.0)	
30-39	15(30.6)	5(10.2)	13(26.5)	8(16.3)	8(16.3)	0(0.0)	
40-49	25(41.0)	13(21.3)	13(21.3)	5(8.2)	4(6.6)	1(1.6)	
>50	29(48.3)	7(11.7)	5(8.3)	9(15.0)	5(8.3)	5(8.3)	
Occurrence of CHE							<0.01
Yes	6(14.6)	8(19.5)	10(24.4)	15(36.6)	2(4.9)	0(0.0)	
No	67(47.2)	17(11.7)	24(16.6)	12(8.3)	19(13.1)	6(4.1)	

**Fishers Exact Test*

Table 5: Factors associated with HSB (N=187)

	Coefficient*	S.E**	O.R***	95% C.I Lower	Upper
Level of Education					
Basic	-1.42	0.73	0.24	0.06	0.96
Tertiary			1.00		
Household size					
≤6	0.48	1.27	1.62	0.133	19.67
>6			1.00		
Grade Level					
Junior	-1.76	1.08	0.17	0.02	1.43
Mid-level	-1.16	0.77	0.31	0.07	1.41
Senior level			1.00		
Socio-Economic Status (SES)					
Poorest	-0.68	1.02	0.51	1.07	3.79
Poor	-0.03	0.84	0.98	0.19	5.09
Rich	-1.16	0.73	0.31	1.08	3.30
Richest			1.00		
Payment Method					
NHIS	3.31	0.56	27.49	9.16	82.45
OOP			1.00		

Coefficient expressed in logits ** Standard Error * Odds Ratio*

While provision of good services was the most important reason among married respondents, affordability was the most important reason among currently single respondents. Similarly, affordability was the most important reason for junior staff and respondents aged 29 and lower. A little more than a quarter of junior staff cited proximity as their reason for selecting healthcare provider while 10.3% of senior staff cited politeness of health provider as the main reason for their choice of healthcare provider. (Table 4).

A logistic regression was performed to ascertain the effects of socio-demographic factors, socio-economic status and payment method on the likelihood that respondents seek health care from formal sources. The model explained 61% (Nagelkerke R^2) of the variance in health-seeking behavior and correctly classified 62.9% of cases. Significant variables in the model included educational status, payment method. Of these, completing only basic education and increased delay in seeking treatment were associated with a reduction in the likelihood of seeking healthcare from formal sources while enrolled members of NHIS were 27.49 times more likely to seek healthcare from formal sources than respondents who pay OOP Table 5.

DISCUSSION

The health-seeking behaviour of civil servants in the study was remarkably better than that of the general population.[24,25] In this study, 63.1% of the respondents used formal healthcare sources. This proportion of respondents with appropriate HSB is higher than reported by Onwujekwe *et al* (2011), and other Nigerian studies who measured HSB using the source of healthcare provider.[17,25,26] These studies reported only about 30% to 40% of the population as seeking health care at formal health centres as compared with the 63.1% found in this study. This is to be expected though, as these studies were carried out either wholly or in part with the rural populace in South-eastern Nigeria. The proportion is however consistent with findings from other studies who used federal civil servants as their study population.[25,27] With respect to the specific health provider, only 4.3% of respondents used informal health care centres. This is considerably lower than was reported in other studies. For example, Oyibo (2011) reported that as much as 17.1% of civil servants used herbal medicines as a form health treatment.[28] This may be because the study included other government workers who are not yet covered by NHIS. However, this proportion is similar to that reported by Onwujekwe *et al* (2011) and Uzochukwu *et al* (2008) indicating that civil servants may not differ from the urban population in terms of their proportions that use traditional medicine.[17,29] This proportion, though, is also lower than is reported in urban areas of other LMICs showing that civil servants in Nigeria may have better health seeking behaviour than similar countries where source of healthcare was used to measure HSB. About sixty percent of respondents used the hospital or clinic as the first source of treatment. This is considerably higher than has been found in other studies where values ranged from between 8% and 30%.[30,31] This is further indication of better health-seeking behaviour among federal civil servants than the general population. However, chemists or patent medicine vendors were the most sought healthcare providers among those who pay OOP. This is consistent with findings in other Nigerian studies among populations who pay primarily OOP.[24,28,32]

In general, the majority of the respondents believed that provision of good services was the most important reason for their choice of health provider. The study reports affordability of services as the most important factor respondents who used out-of-pocket payment. This concurs with other Nigerian studies investigating factors influential to choice of provider among out of pocket.[33,34] For example, Omotoso (2010) discovered that populations without insurance consider affordability as most important along to closeness to their residence.[24] This study further revealed that the likelihood of seeking appropriate healthcare improved as socio-economic status improved. This concurs with findings that inability to pay for health services is a major factor determining the utilization of health services.[28,35] This further affirms that underutilization of formal health services especially by the poor and disadvantaged remains a chronic problem in developing countries even though there is a huge unmet need for health care.[36]

Unlike in some previous studies, women in this study were found to be as likely to have appropriate health-seeking behaviour as men.[10,37] This may indicate that female federal civil servants are aware of the importance of appropriate treatment service and its sources. One possible explanation for this could be that they have enough access to information due to their constant exposure to sources of information at their workplace. Furthermore, they are economically less dependent on their husbands as they are income earners. In addition, they have enough education to participate in making household decisions including seeking healthcare in time of illness and do not totally depend on their husbands' decisions.

Inappropriate health-seeking behaviour was observed among participants from larger family sizes in this study. This might be due to the fact that those who had larger

family members shouldered more family responsibilities and experienced severe socioeconomic hardships, which prevented them from visiting appropriate healthcare facilities for their illnesses. This corresponds with findings by Manzi *et al* (2014) in Rwanda.[38]

A potential bias in this study was recall bias. This might have been present as is usual in self-reported prevalence surveys. Recall bias was reduced by limiting enquiries on health-seeking to one month. This cut-off has been used widely by researchers in several countries.[26,39] Another limitation is that income earned were likely to have been overestimated.[27] Analysis was therefore not based on only income. Presence of household assets were used to derive wealth quartiles. The cross-sectional nature of this study does not allow inferences to be made from its results. The results of this study can also be representative of civil servants living only in Oyo State.

CONCLUSION

Respondents' characteristics such as completing tertiary education, having lower household sizes, belonging to higher socio-economic status quartile and participation in National Health Insurance Scheme were significantly associated with seeking appropriate health seeking behaviour. Providing good services, affordability of such services and proximity were considered the most important service characteristics in seeking health seeking behaviour. Thus, policy formulation and implementation should be directed towards improving access to healthcare services. This can be done by increasing the number of health facilities in under-served areas. The quality of care provided at health facilities also requires attention as mentoring, supportive supervision and other measures could be embarked upon in order improve quality of care. Issues concerning affordability of such health services can be addressed by up-scaling the coverage of the National Health Insurance Scheme, the country's flagship insurance scheme. This would provide financial protection for households with lower socioeconomic status in order to encourage use of appropriate healthcare sources during illness episodes.

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