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Evaluating end users' knowledge and perceived benefit of the National Health Insurance Scheme post implementation in a south-west state of Nigeria

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Abstract

The National Health Insurance Scheme (NHIS) is designed to provide a cost-effective comprehensive health care delivery system for employees of formal sectors, self-employed, poor and vulnerable groups. Oyo state government approved the establishment of her health insurance scheme and there after sent an executive bill to the legislature for a swift consideration and approval. This study assessed the knowledge and perceived benefit of NHIS among civil servants in Oyo state, Nigeria. The study was a cross-sectional study conducted amongst 200 state civil servants. Participants were selected using convenient sampling technique and data was obtained using a structured questionnaire. Data was analyzed with SPSS v.25 to obtain frequencies, means and standard deviation. Respondents had good knowledge with a mean of 16.4 ± 1.0 on an 18-point scale about NHIS while respondents had fair perceived benefit of the NHIS with a mean of 18.3 ± 3.1 on a 35-point rating scale. Results denote knowledgeable end users who perceive to be benefiting from the scheme. The State Government is encouraged to expand the NHIS to other sectors to enable fuller coverage. More emphasis should be made on the benefits of enrollment to prompt high level willingness to enroll.

Keywords: Civil servants; Knowledge; National Health Insurance Scheme; Oyo state; Perceived benefit

1. Introduction

The Nigerian National Health Insurance Scheme (NHIS) was first introduced to parliament in the year 1962 when the need for health insurance in the provision of health care to Nigerians was first recognized. It was fully approved by the federal government in 1997 and signed into law in 1999 [1] [2]. It was then officially launched in 2005 [3]. The need for the NHIS in Nigeria came up as a result of poor health indices, high mortality rate, and poor state of healthcare services, excessive dependence on government health facilities, pressure on public health facilities and poor integration of private health facilities into the nation's healthcare system [4].

The main goal of the NHIS was to ensure universal coverage with access to affordable healthcare to reduce the reliance on out-of-pocket system of payment, so as to improve the health care condition of the people, especially the people participating in the scheme already [5] yet only 4% of the over 170 million people are covered [6]. Majority of the current enrollees are in the formal sector such as federal, state and other taxable establishments [7] and live in the urban areas. Of these sectors, the scheme mainly covers those in federal service. Meanwhile, the informal sector mostly consists of rural dwellers who are not knowledgeable about any form of prepayment scheme leading to poor access and utilization [8].

Beyond offering universal coverage NHIS cuts the cost of healthcare services, promotes equity in health service utilization by maintaining equal standards, it ensures equity in the burden of funding through contributions from

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stakeholders alike (government, private sector and individuals) [9]. These benefits amongst others should encourage the utilization of the scheme. Adequate knowledge and awareness about a scheme such as the NHIS and its benefits are important for its sustainability. Moreover, adequate knowledge has been shown to be associated with membership of a health insurance scheme [10].

In 2018, the Oyo State government of Nigeria, approved health insurance for its workers and partners [11] aimed at further promoting its goals for the people of the state. Since its implementation, not much is known about what the people, especially state level workers know or perceive to be the benefit of the scheme to aid evaluation of the scheme by the end users. Therefore, this study sought to determine the knowledge and perceived benefit of the scheme amongst state civil servants.

1.1. Theoretical framework

This study was hinged on the health belief model (HBM). Rosenstock [12] put forth the Health Belief Model in 'Why humans use health services'. In the model is the perception of the consequences and benefits of human actions or inactions. The aspects of the model are recognized as barriers to an action; benefits of an action, the severity of the condition requiring a reaction; susceptibility of an individual to an undesirable condition; and cues which prompt specific actions. The model deals with the self-assurance that an individual has in his or her potential to forestall an undesirable health situation and the assurance that whatever motion was once taken in this regard is in a position to prevent such undesirable condition.

Civil servants would consider subscribing to the Insurance scheme if they perceive some wrongs in no longer doing so. Consequently, they may additionally select to ignore the health insurance plan scheme if subscribing to the scheme would not remove the perceived dangers in the failure of not subscribing. Another perspective may additionally be premised on the credibility of anything that is based totally on insurance. Thus, with a growing culture of doubt in the credibility of insurance plan programs in Nigeria, inaction might also be envisaged whilst others might also be of the view that taking part in such is beneficial.

2. Material and methods

2.1. Study design

This study was a cross sectional study conducted amongst state employees in Oyo State South- West, Nigeria.

2.2. Study sample and technique

Convenience sampling was used to select participants from the four ministries outside of health -related matters within the state secretariat for the study with a population of 364 workers. Health workers present during the time of data collection and who consented to participating were selected. Sample size was determined using the formula $n = \frac{NZ^2pq}{E^2(N-1) + Z^2pq}$ [13] where, n= Sample size, N= Population size, Z= 1.96 at 95% CI, p & q=population proportions (0.5)(q= 1-p), E= Degree of accuracy (0.05). The total sample obtained was 187. An attrition of 7% was calculated to obtain a final sample size of 200.

2.3. Data collection instrument

A structured 23-item questionnaire with three sections was used to collect data from participants. The questionnaire was composed of 7 questions on sociodemographic variables, 9 questions on knowledge about NHIS and 7 questions on perceived benefits of the NHIS.

Instrument was pretested among a similar sample of 10% of the study participants (20) and found to be reliable with a Cronbach's alpha coefficient of 0.711. Validity was assessed by assessing potential ambiguities of the instrument and adjusting the instrument accordingly. Ethical clearance was obtained from the Babcock University Health Research Ethics Committee prior to the commencement of the study. Informed consent was also obtained from each participant.

2.4. Data analysis

Data were coded into and analyzed using SPSS v. 25 to derive descriptive and inferential statistical data. Frequency distributions and means were used to describe sociodemographic variables, while means and standard deviations were used to determine levels of knowledge and perceived benefit. To determine the level at which respondents were on the variables Knowledge and Perceived benefit, each of these were computed on various point scales. Knowledge was computed as a composite variable by summing up the 9 questions related to knowledge. Knowledge was then computed

on an 18-point scale given dichotomous responses (Yes/No). The mean levels were thus noted as points 0-6.5 (poor level of knowledge), 6.6-13.1 (fair level of knowledge), 13.2-20.7 (good level of knowledge). A composite perceived benefit score was computed by summing up the 7 questions relating to perceived benefit on 5 Likert scales. Points 0-7.5 (extremely low perceived benefit), 7.6-15.1 (low perceived benefit), 15.2-22.7 (fair perceived benefit), 22.8-30.3 (high perceived benefit) and 30.4- 37.9 (extremely high perceived benefit).

3. Results

3.1. Demographic characteristics of Civil servants

Results showed that 122(61.0%) were males while 78(39.0%) were female, 121(60.5%) were Christians while 90(39.5%) were Muslims, 188(94.0%) were from Yoruba, 3(1.5%) were from Igbo ethnic group while 9(4.5%) were from other ethnic groups, and majority of respondents 91(45.5%) were of ages 35-39 years, 44(22.0%) of ages 30-34 years, 30(15.0%) of ages 25-29 years, 22(11.0%) of ages 40-44 years and 13(6.5%) of ages 50 and above. Also, 181(90.5%) of respondents were married while 19(9.5%) were single, 117(58.5%) of respondents had attained HND/BSc qualification while 83(41.5%) had only OND/NCE qualifications and most respondents 62(31.0%) were working in ministry of land and housing, 53(26.5%) were working in the ministry of finance, 44(22.0%) were with the ministry of works and transport, 41(20.5%) were working in the ministry of information, culture and tourism (Table 1).

Table 1 Demographic characteristics of Civil servants

Characteristics	Frequency (n)	Percentage (%)
Gender		
Male	122	61.0
Female	78	39.0
Religion		
Christianity	121	60.5
Islam	79	39.5
Ethnicity		
Yoruba	188	94.0
Igbo	3	1.5
Others	9	4.5
Age (years)		
25-29	30	15.0
30-34	44	22.0
35-39	91	45.5
40-44	22	11.0
50 and above	13	6.5
Marital status		
Single	19	9.5
Married	181	90.5
Educational status		
OND/NCE	83	41.5
HND/BSC	117	58.5
Ministry working under		
Information, culture and tourism	41	20.5
Works and transport	44	22.0
Land and Housing	62	31.0
Finance	53	26.5

Total number of respondents N=200

3.2. Knowledge and Perceived Benefit of NHIS

Results showed that 100% knew that the NHIS is a health insurance programme and operates within the formal sector, while 94.5% knew NHIS covers the employee and the family, while 67.0% noted that the NHIS covers only the employed.

Table 2 Knowledge about NHIS among civil servants

Variables	YES		NO	
	Freq.	%	Freq.	%
NHIS is a health insurance program	200	100.0	0	0
NHIS is a health related programme	200	100.0	0	0
NHIS operate only in formal sector	195	97.5	5	2.5
NHIS covers both preventive and curative services	190	95.0	10	5.0
NHIS operates in all states in Nigeria	190	95.0	10	5.0
NHIS covers the employed and the family	189	94.5	11	5.5
NHIS is a public organization	188	94.0	12	6.0
NHIS covers only the employed	66	33.0	134	67.0
NHIS is only for the physically challenge people	55	27.5	145	72.5

Total number of respondents N=200

The level of knowledge computed on an 18-point scale showed that the respondents mean knowledge score was 16.4 ± 1.0 . (Table 4). Thus, respondents had a high level of knowledge of the scheme.

3.3. Perceived benefit of NHIS

The survey showed 76% strongly agreed that the NHIS provides a cheaper form of health care, while 75% also strongly agreed that emergency services can be accessed without paying immediately. Another 64.5% strongly agreed that the NHIS allows prompt access to health care. More than half (58%) strongly agreed that the NHIS would protect personal savings and 70.5% agreed that they would be faced with medical bills if not registered under the scheme (Table 3). The mean score of 18.3 ± 3.1 showed fair perceived benefit as measured on a 35- point scale (Table 4).

Table 3 Perceived benefit of NHIS among respondents (N = 200).

Statements	Strongly agree Freq (%)	Agree Freq (%)	Undecided Freq (%)	Disagree Freq (%)	Strongly disagree Freq (%)
NHIS provides me a cheaper form of health care.	152(76.0)	0(0)	0(0)	48(24.0)	0(0)
If I am registered under the health insurance scheme; I can access emergency services without paying immediately.	150(75.0)	6(3.0)	0(0)	40(20.0)	4(2.0)
NHIS enables me access health care promptly.	129(64.5)	6(3.0)	0(0)	65(32.5)	0(0)
NHIS will help me protect my personal servings.	116(58.0)	9(9.0)	0(0)	0(0)	75(37.5)
NHIS will help me reduce expenditure from my personal servings.	116(58.0)	9(9.0)	0(0)	0(0)	75(37.5)
I might be faced with an increased burden of medical bills, if I did not register under NHIS.	8(4.0)	141(70.5)	0(0)	51(25.5)	0(0)
NHIS guarantees my social community.	7(3.5)	53(26.5)	0(0)	139(69.5)	1(0.5)

Table 4 Descriptive Summary of knowledge and perceived benefit

	Max Point of scale of measure	Mean	% of Max point	Std Deviation
Knowledge	18	16.3650	90.9	1.04750
Perceived	35	18.2950	52.3	3.08799

4. Discussion

Results of this study generally reveal high knowledge of the NHIS and a high level of perceived benefit. As has been noted, adequate knowledge about and good perceived benefit translates to utilization of the scheme [10][14]. The results, therefore give hope for sustainability of the scheme. These results are in contrast to a study by Olugbenga-Bello & Adebimpe [15], where knowledge about the scheme was not known. Only 26.7% knew the objectives of the scheme and 30% knew about the beneficiaries of the scheme. However, a study in the northern part of the country reported very high awareness about the scheme amongst similar population and found the scheme had impacted on the health of the civil servants [16]. Generally, these results indicate mixed outcomes from civil servants. In this study the trend in knowledge, however, indicates good awareness and knowledge about the scheme, probably due to an open system where the scheme has been fully explained to workers which also shows good communication between the providers and the end users thereby promoting a sense of mutual responsibility.

Perception of benefit was fair. Other studies also reported a feeling of effectiveness of the scheme on their health and wellbeing, despite challenges [16]. Olayemi [17] reported positive perceptions of the NHIS benefits to the respondents having mixed feelings about the services in general. This study found that quite a larger number of the respondents tended towards positively perceiving the benefits they derive from the scheme indicating satisfactory feelings towards the scheme.

5. Conclusion

The findings in this study reveal generally good communication and satisfaction about the insurance scheme in the study area. This assumes to promote a positive move by the government of the state in ensuring its workers benefit from the scheme as was designed. The decision of the government can be said to be timely and is achieving its aims. Other sectors which are not yet beneficiaries need to be engaged to enable full coverage of its citizenry and achieve “universal coverage”.

Compliance with ethical standards

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Disclosure of conflict of interest

All authors declare no conflict of interest.

Statement of ethical approval

Ethical approval was obtained from the Babcock University Health Research Ethics Committee.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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