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Awareness of National Health Insurance Scheme (NHIS) activities among employees of a Nigerian University

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Abstract

Aim: Aim of this study was to assess the level of awareness of NHIS activities among employees of a Nigerian university.

Methods: The study was conducted among the employees of University of Nigeria, Nsukka. A 30-question consisting of 5 points response scale was developed for the survey questionnaire. On the 5-point scale, '5' represented the highest mean score while '1' represented the lowest mean score. On the 30-question questionnaire the lowest possible score would be 30 while the highest possible score would be 150. Total awareness mean score above a logical neutral point which was assumed to be 90 i.e. midpoint between 30 and 150, correlates with being aware and vice versa. Levels of awareness were categorised priori: summated mean awareness scores below 90 were considered to be unaware, '>90 to 110' - marginally aware, '> 110 to 130' - moderately aware, and '> 130 to 150' - highly aware of NHIS activities, since high summated score correlates with high level of awareness.

Results: A response rate of 87.2% (436 out of 500 questionnaires) was obtained. Awareness was significantly associated with all the demographic characteristics of the respondents. Following summation, the sub total awareness mean scores for objectives of the scheme, responsibilities of the scheme and powers of the scheme council were 32.73 ± 2.16, 34.22 ± 2.48 and 33.27 ± 3.38 respectively while the grand total awareness mean was 100.22 ± 8.02.

Conclusion: This study revealed that employees of university of Nigeria were marginally aware of NHIS activities. Demographic characteristics played considerable role on level of awareness of NHIS activities.

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INTRODUCTION

Insurance is a veritable tool for healthcare financing, it has been used by most advanced countries in its various forms to fund healthcare. It is only recently being applied by poorer developing nations to

address the glaring problem of inadequate healthcare provision, which was hitherto financed exclusively from public taxation. The health sector can be subdivided into two main categories, healthcare infrastructure and healthcare financing. Health funding relates directly to all production and financial activities and resources expended on goods and services consumed by or provided to the human population for the purpose of improving health.[1]

Awareness and interest towards government policies and programs can be aroused by individual attitude and behaviour. Whenever there are negative perception and attitude towards these policies and programs, such policies and programs are bound to fail. An attitude is a learned disposition to behave in a consistently favourable or unfavourable way with respect to a given object [2]. Stated differently, it positions people into a frame of mind of liking or disliking things, of moving toward or away from them[3]. It is acknowledged that people have attitudes toward almost everything - religion, politics, clothes, music, and food[4]. Awareness of these government programs and activities makes the governed to have positive attitude and perception towards these programs, thus, improving their participation and responsiveness to these programs.

The National Health Insurance Scheme (NHIS) was introduced in Nigeria with the promulgation of degree No. 35 of 1999.[5] The broad objective of the scheme is to ensure that every Nigerian has access to good health care services at affordable costs. Participants are expected to pay capitation fees to licensed Health Maintenance Organisations (HMOs), which would allow the subscriber to have access to registered health care providers[6]. In this degree, Federal Executive Council approved National Health Insurance Council (NHIC) as an omnibus regulator of the entire NHIS, which perhaps will correspond to the institution/corporate body. Also National Health Insurance Fund (NHIF) was established to manage deductions from public sector employees and employers while HMO would receive contributions from their organised private sector counterparts. These would constitute the formal sector programme, while the informal sector programme will comprise community and self-employed micro-insurance and also a government funded programme for the vulnerable groups such as children under five years, permanently disabled, elderly and prison inmates. The current mode is to break the circle of planning and take actions that will translate policies into action.

The Nigerian National Health policy objective is the attainment of a level of health that will enable all Nigerians to achieve socially and economically productive lives. Primary Health Care (PHC) has been the key to achieving this national goal. Hence, PHC has been the number one national health priority since its launching in 1986; the focus of PHC initially was to redress the imbalance in the distribution of health resources between urban and rural areas.

However, a growing demand for modern medical care, brought on by a rapidly, expanding population, rising literacy levels, and technological advancement lead to high expectation from the health services. This has shifted demand in favour of hospital care. The world economic recession in the 1980s and the consequent macro-economic adjustments, which have continued until now; have led to a continuous decline in public spending for health. It is unlikely that, additional funding will be available from public sources to finance health care activities given the demand on total public incomes from other sectors. An autonomous health fund would be needed to provide additional finance that would sustain the health care demands of a growing population, initiate new developments in health care and improve standards of care, herein, the establishment of the NHIS. The original intention of the scheme in Nigeria is to provide resources that will allow cross subsidisation in the health sector so that the healthy

pay for the sick, the rich pay for the poor and the young pay for the old.

However, this sort of social solidarity is possible where there is a huge formal sector, and/or where the government is willing and able to pay the contributions of the old, children and poor people. With large informal sector and the diversity in economic status in Nigeria, it is difficult for social health insurance to determine premium equitably. It became obvious that several other programmes would be required under the scheme to achieve universal coverage. It is quite encouraging to note that consensus has been achieved in this respect.

As anxiety grows over the phased implementation of the NHIS starting with formal workers in the employment of the federal government, major stakeholders have given support to piloting the programme in a limited number of sites. This is on the premise of some obvious factors in the country. There is inadequate knowledge and capacity to operate an insurance based health system. The level of corruption and lack of transparency and accountability in the country is still very high. Healthcare providers and consumers are very much uncertain on how it will affect the doctor – patient relationship. Health care decision makers' optimism in the NHIS as a cure-all for the problems of the health system is up in the air[6].

Given the inefficiencies experienced in public hospitals, it was expected that the populace would readily embrace the scheme. For some reason this does not appear to be the reality. Worse still, it is unclear the level of participation. Thus, it is difficult to know what the scale should be of say, an enlightenment programme or some other strategy that could boost participation need to be put in place. The above issues informed the aim of this study which was to assess the level of awareness of NHIS activities among employees of a Nigerian university.

METHODS

Instrument Development

A 30-question consisting of 5 points response scale was developed for the survey questionnaire. Respondents were requested to rate their level of awareness on the scale of 1 to 5 (lowest to highest) in the space provided. The instrument was prefaced: Strongly aware = 5, aware = 4, Not sure =3, unaware = 4 and strongly unaware = 1. Their levels of awareness were expressed in the rating of degree of awareness of NHIS related questions.

A pilot study was conducted using 45 staff of university of Nigeria, Nsukka to ascertain the validity. The awareness of the respondents was assessed in areas of objectives, responsibility and powers of NHIS as stipulated in National Health Insurance Scheme Decree No 35 of 1999, Laws of the Federation of Nigeria; sections 5, 6 and 7.[5]

After the pre-test, the instrument was slightly modified and subsequently used for the survey. In addition to questions asked to assess NHIS awareness among staff of university of Nigeria, the survey included questions on respondents' characteristics such as age, sex, marital status, education level, category of staff.

Study Setting

The study was conducted among the employees of University of Nigeria, Nsukka. The university is located in Enugu state, Enugu state is in the South Eastern Nigeria. It is located between latitudes 5° 56´N and 7° 05´N and longitudes 6° 53´E and 7° 55´E[8]. The university has two campuses: Enugu campus and Nsukka campus. The Nsukka campus accommodates about 25,000 students and more than 7000 staff distributed in nine faculties, institutes, units etc.

Sampling techniques

Multistage sampling method was adopted in this study. In the first stage, the Nsukka campus was grouped into five sections (A-E) namely; A: faculties of Pharmaceutical sciences and Veterinary medicine, B: faculties of Biological sciences and Agricultural

sciences, C: faculties of Arts and Education, D: faculties of Physical sciences and Engineering, and E: faculty of Social sciences, Unit and Institutes. Two departments were selected at random from each of the groups, giving ten departments; fifty questionnaires were distributed to staff in these departments, giving a total of 500 questionnaires. A self-completion questionnaire was administered to the staff. Respondents were briefed on the purpose of the study and oral consent was obtained from them. All respondents were assured of confidentiality and anonymity. They were asked to put the completed questionnaire in the envelope provided. Completed copies of the questionnaire were retrieved on follow-up visits. Non responders were orally interviewed and reasons given for their non participation ranged from lack of time to lack of interest.

The completed questionnaires were sorted and entered into version 14 of Statistical Package for the Social Sciences (SPSS Inc. Chicago) and Microsoft 2007 Excel package for analysis. Descriptive statistics of the respondents characteristics and questions in the questionnaire were computed, including frequency distributions, means score, standard deviations (SDs), and 95% Confidence Interval (CI).

Relationships between the demographic profile and responses of respondents were explored using Student's *t*-test and one-way ANOVA with the aid of GraphPad Instat 3, which reports exact P-values; hence a P-value of less than 0.05 was interpreted as significant.

On the 5-point scale, '5' represented the highest mean score while '1' represented the lowest mean score. On the 30-item questionnaire the lowest possible score would be 30 while the highest possible score would be 150. Since all the items were in one direction, a summation of the scores was calculated to reflect the level of awareness. High total summated mean score above a logical neutral point which was assumed to be 90 i.e. midpoint between 30 and 150, correlates with being aware and vice versa.

Levels of awareness were categorised priori, summated mean awareness scores below 90 were considered to be unaware, '>90 to 110' - marginally aware, '> 110 to 130' - moderately aware, and '> 130 to 150' - highly aware of NHIS activities, since high summated score correlates with high level of awareness.

Awareness mean scores were computed by summing the scores for each question in the questionnaire and dividing by the total number of questions (30), thus retaining the 1 to 5 range of possible scores. The standard deviation was calculated as a measure of awareness score variability from the mean score. Any low standard deviation indicated cluster of responses to the mean while high standard deviation reflected high variability of opinions from the mean. The above stated methods have been used by Adibe, M.O. et al[9] to evaluate therapeutic uses of *Aloe vera* in the same university. The level of significance was set at $P < 0.05$.

RESULTS

A response rate of 87.2% (436 out of 500 questionnaires) was obtained. Generally, respondents who were married, male, academic staff and highly educated were more likely to be aware while middle age (36-50 years) respondents were less likely to be aware. Awareness was significantly associated with all the demographic characteristics of the respondents (Table 1).

On the whole, only 41.1% (179) of the respondents could give the correct full of NHIS and 49.8% (217) claimed they had registered with the scheme. Of the later, 60.8% (132) were accessing the scheme's health care services at the time of this study.

Majority of them reported that corruption in public sector, lack of accountability and unclear of sense of responsibility, poor management of available resources, management and running of scheme by

non professionals and poor financing by the government were the major setbacks to the scheme. Following summation, the sub total summated mean scores for objectives of the scheme, responsibilities of the scheme and powers of the scheme council were 32.73 ± 2.16, 34.22 ± 2.48 and 33.27 ± 3.38 respectively while the grand total summated mean was 100.22 ± 8.02 (Table 2).

Table 1: Demographic characteristics of the respondents and its association with awareness mean score

Characteristics	N= 436	Percentage	Mean score	S.D	95% CI
Age (Years)			F= 26.321; P< 0.0001		
18-35	232	53.2	3.22	0.43	3.149-3.291
36-50	142	32.6	2.86	0.32	2.779-2.941
> 50	62	14.2	3.17	0.27	3.135-3.205
Sex			t = 59.273; P< 0.0001		
Female	254	58.3	2.45	0.11	2.436-2.464
Male	182	41.7	4.12	0.43	4.058-4.182
Marital Status			F = 24.393; P< 0.0001		
Single	242	55.5	2.81	0.38	2.762-2.858
Married	79	18.1	3.02	0.27	2.959-3.081
Widowed	73	16.7	2.61	0.31	2.538-2.682
Divorced/Separated	42	9.7	2.52	0.49	2.367-2.673
Categories of respondents			F= 102.35; P<0.0001		
Administrative staff	283	64.9	3.22	0.61	3.149-3.291
Technical staff	52	11.9	3.17	0.46	3.042-3.298
Academic staff	101	23.2	4.07	0.23	4.025-4.115
Educational Status			F= 131.55; P<0.0001		
Primary Education	72	16.5	2.43	0.61	2.286-2.574
Secondary Education	191	43.8	2.72	0.38	2.666-2.774
Tertiary Education	173	39.7	3.31	0.42	3.247-3.373

Table 2: Awareness of Objectives, Functions (Responsibilities) and Powers of the Scheme

s/n	Questions	Awareness Mean score	S.D
A	OBJECTIVES: The objectives of the Scheme shall be to:		
1	Ensure that every Nigerian has access to good health care services	3.67	0.18
2	Protect families from the financial hardship of huge medical bills;	3.91	0.12
3	Limit the rise in the cost of health care services;	3.06	0.23
4	Ensure equitable distribution of health care costs among different income groups;	2.74	0.28
5	Maintain high standard of health care delivery services within the Scheme;	2.92	0.20
6	Ensure efficiency in health care services;	3.82	0.21
7	Improve and harness private sector participation in the provision of health care services;	2.09	0.35
8	Ensure adequate distribution of health facilities within the Federation;	3.87	0.37
9	Ensure equitable patronage of all levels of health care;	2.73	0.08
10	Ensure the availability of funds to the health sector for improved services.	3.92	0.14
	Sub-total summated mean score	**32.73**	**2.16**
B	FUNCTIONS (RESPONSIBILITIES): The Scheme shall be responsible for:		
11	Registering health maintenance organisations and health care providers under the Scheme;	3.65	0.21
12	Issuing appropriate guidelines to maintain the viability of the Scheme;	3.72	0.23
13	Approving format of contracts proposed by the health maintenance organisations for all health care providers;	3.23	0.09
14	Determining, after negotiation, capitation and other payments due to health care providers, by the health maintenance organisations;	2.73	0.32

s/n	Questions	Awareness Mean score	S.D
15	Advising the relevant bodies on inter-relationship of the Scheme with other social security services;	3.87	0.08
16	The research and statistics of matters relating to the Scheme;	2.99	0.30
17	Advising on the continuous improvement of quality of services provided under the Scheme through guidelines issued by the Standard Committee established under the Decree;	3.87	0.41
18	Determining the remuneration and allowances of all staff of the Scheme;	3.81	0.29
19	Exchanging information and data with the National Health Management Information System, Nigerian Social Insurance Trust Fund, the Federal Office of Statistics, the Central Bank of Nigeria, banks and other financial institutions, the Federal Inland Revenue Service, the State Internal Revenue Services and other relevant bodies;	2.43	0.21
20	Doing such other things as are necessary or expedient for the purpose of achieving the objectives of the Scheme under this Decree.	3.92	0.34
	Sub-total summated mean score	**34.22**	**2.48**
C	POWERS: The Council shall have power to:		
21	Manage the Scheme in accordance with the provisions of the Decree;	3.78	0.33
22	Determine the overall policies of the Scheme, including the financial and operative procedures of the Scheme;	3.31	0.42
23	Ensure the effective implementation of the policies and procedures of the Scheme	3.21	0.20
24	Assess, from time to time, the research, consultancy and training programmes relative to the Scheme;	2.79	0.44
25	Arrange for the financial and medical audit of the Zonal Health Insurance Offices	2.93	0.31
26	Set guidelines for effective co-operation with other organisations to promote the objectives of the Scheme;	3.23	0.16
27	Co-ordinating quarterly returns from the Zonal Health Insurance Offices	3.53	0.29
28	Ensuring public awareness about the Scheme;	3.71	0.57
29	Co-ordinating manpower training under the Scheme;	3.62	0.26
30	Carry out such other activities as are necessary and expedient for the purpose of achieving the objectives of the Scheme.	3.16	0.40
	Sub-total summated mean score	**33.27**	**3.38**
	Grand-total summated mean score	**100.22**	**8.02**

RESULTS

A response rate of 87.2% (436 out of 500 questionnaires) was obtained. Generally, respondents who were married, male, academic staff and highly educated were more likely to be aware while middle age (36-50 years) respondents were less likely to be aware. Awareness was significantly associated with all the demographic characteristics of the respondents (Table 1).

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Following summation, the sub total summated mean scores for objectives of the scheme, responsibilities of the scheme and powers of the scheme council were 32.73 ± 2.16, 34.22 ± 2.48 and 33.27 ± 3.38 respectively while the grand total summated mean was 100.22 ± 8.02 (Table 2)

DISCUSSION

The results of this study revealed that the grand total summated awareness mean score was 100.22 ± 8.02 indicating that the employees of university of Nigeria were marginally aware of NHIS activities. This is consistent with the respondents' acclaimed 49.8% registration, of this; only about 61% were accessing the scheme's health care services as at time of this study. This result is worrisome, it is expected that university employees should be aware of all the

activities of the government but that was not the case in NHIS. This situation is pathetic as one wonders what the situation will be in other formal sectors where the employees are less learned and enlightened, worst still in informal sectors.

This ugly state of affairs might be as results of reported corruption in public sector, lack of accountability and unclear of sense of responsibility, poor management of available resources, management and running of scheme by non professionals and poor financing by the government. Efforts should be made by all the stakeholders of NHIS to reduce and remove these reported bottlenecks in scheme.

The results showed that respondents' age had a significant effect on employees' awareness of NHIS activities, with respondents who were 35 years and below (youths) being more likely to be aware of NHIS activities (mean score of 3.22) than those whose age were 36 years and above. This stems from the fact that members of this group are at the prime of active life, and they are more curious and ambitious, in addition they have more access to information. The mean score of respondents with age group above 50 years (3.17) closely followed that of the youths; this may be attributed to the fact that members of this group are at the tailed end of active life, and they are more conscious of life after retirement.

Male respondents' mean awareness score was far higher than their female counterpart, gender has statistically significant effect on employees' awareness of NHIS activities. This is not surprising as Nigerian women do not always have access to sources of information, though they are actively involved in economic roles in their families and are conscious of the significance of insurance in their endeavours[10].

Marital status had a significant influence on employees' awareness of NHIS activities. Married respondents were more likely to be aware than others. This can be explained by the expensive health care bills the married usually pay for themselves and their children unlike the singles. Thus any program that will alleviate this burden is usually embraced easily. It is not surprising that mean awareness score of widowed and divorced/separated was low due to the depression and social withdrawal associated with difficult and precarious conditions facing these groups particularly in Nigeria and Africa in general.

Categories of staff and educational status of Nigerians had significant influence on their awareness of NHIS activities. Academic staff and highly educated people were more likely to be aware than their counterparts. This can be explained by the fact that academic staff and highly educated respondents are more enlightened.

The findings serve as inputs to National Orientation Agency (NOA) and National Health Insurance Council (NHIC) on how they formulate and implement relevant awareness strategies towards addressing the nonchalant attitude of Nigerians to NHIS. For instance, specific orientation strategies are required to encourage the young generation between 36 and 50 year of age, the single, divorced/separated, non academic staff and the less-educated to embrace and appreciate the role and importance of NHIS. This will help to kindle their interest and brings the NHIS to the highly exalted position it belongs to in their perception.

Since, the basic issue associated with this lack of interest rests mainly in their lack of appreciation of the roles and benefits of the scheme's activities.

Overall, the peculiar feature of most financial transactions in the developing world has been full of uncertainty which in turn, erodes the trust of the insuring public. This is where the regulatory authority wades in to strengthen regulation and supervision that would further boost the public confidence and trust in this NHIS. In the case of Nigeria specifically, the present government's cardinal programme of strict adherence to the rule of law should be extended to the health sector where

impunity seems to be holding sway at the moment. It is when the public realizes the availability of seeking redress in case of disputes that they can repose confidence and positive attitude to the scheme. Nevertheless, the efficacy of orientation and awareness campaign would go a long way in addressing the nonchalance problem. Hence, further studies should be carried out on the efficacy of the present awareness campaign strategies being adopted by NHIC to exploit the opportunities offered by these findings.

CONCLUSION

The survey revealed that employees of university of Nigeria were marginally aware of NHIS activities. The employees' demographic characteristics played considerable role on level of awareness of NHIS activities. The findings of this study suggest some major implications for awareness campaign on NHIS activities. Given that attitude is strongly linked to behaviour and behaviour to interest, National Orientation Agency (NOA) and National Health Insurance Council (NHIC) targeting Nigerians are confronted with the challenge of encouraging people to embrace NHIS and its associated benefits.

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