Original Article

Knowledge of Community-Based Health Insurance and Associated Factors among Artisans in a Selected Community of Ekiti State

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Abstract

Background: The Community-Based Health Insurance Scheme (CBHIS) (National Health Insurance Scheme [NHIS]) pools the risk of high costs of health care across a large number of individuals, and it permits payment of a premium based on the average cost of health care for the group of people. This function of spreading risk in NHIS helps in making the cost of health-care services affordable for many individuals. **Aim:** This study which is aimed at assessing the knowledge of Community-Based Health Insurance (CBHIS) among artisans in Ekiti State will help in identifying and implementing strategies to widen health insurance services to this group of nonformal sector. **Materials and Methods:** A descriptive cross-sectional study was conducted among 416 respondents using a systematic random sampling technique among the skilled occupational group vis-a-vis bricklayers, carpenters, electricians, hair stylist, and tailors. Data were collated using an interviewer-administered semi-structured questionnaire and analysed using IBM SPSS version 23. Chi-square and binary logistic regression were used to assess the association between dependent and independent variables. $P < 0.05$ was taken as statistically significant. **Results:** The study participant mean age was 29.7 ± 10.9 years, majority were females (57.5%), and 46.9% had tertiary education. 53.1% were aware of health insurance, but only 24% were aware of CBHIS. Just about a fifth of the respondents (18.3%) had good knowledge of CBHIS. Significant factors and predictors of knowledge of CBHIS in this study include female gender, tertiary level of education, higher family income, and higher frequency of illness. **Conclusion:** The awareness and knowledge of CBHIS among artisans in Ekiti State is still very low. Factors associated with the low knowledge include gender, level of education, frequency of illness, and family income. Therefore, efforts at improving awareness and educating members of the public about the scheme will be beneficial.

Keywords: Artisans, Community-Based Health Insurance, Ekiti State, knowledge

Introduction

Health-care service delivery remains an important basic social service any government can render to its people.[1] Health care is often expensive and the poor among the community may not be able to afford the costs of treating and managing a serious diseases when they occur.[1] The public health system in Nigeria is characterised by ill-motivated health-care personnel and poor funding which has led to failure of the system to provide its citizen with quality and affordable and inequitable access to health-care services.[2-5]

Accessing comprehensive health care is a major problem in developing countries, especially among the low-income populace. In Nigeria, around 70% of the population resides within the rural areas where they make the use of out-of-pocket (OOP) means of health financing which has posed a major problem.[4] Access to medical service delivery by the poor has been severely affected due to inability to pay as evident by their low earning and expenditure patterns.[3,4] This is because health-care financing mechanism in Nigeria has been predominantly OOP with low health budget and poor penetration of health insurance.[5-8] OOP payment for health

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Table 1: Sociodemographic characteristics of respondents

Variables	Frequency, *n* (%) (*n*=416)
Age group (years)	
<20	52 (12.5)
20-29	183 (44.0)
30-39	82 (19.7)
40-49	82 (19.7)
≥50	17 (4.1)
Mean age±SD (range)	29.7±10.9 (15-75)
Gender	
Male	177 (42.5)
Female	239 (57.5)
Marital status	
Married	212 (51.0)
Single	188 (45.2)
Separated	10 (2.4)
Widowed	6 (1.4)
Married	212 (51.0)
Religion	
Christianity	368 (88.5)
Islam	26 (6.3)
Traditional	15 (3.6)
Ethnicity	
Yoruba	370 (88.9)
Igbo	21 (5.0)
Hausa	16 (3.8)
Others	9 (2.2)
Highest educational level	
No formal education	4 (1.0)
Primary	18 (4.3)
Secondary	199 (47.8)
Tertiary	195 (46.9)
Main occupation	
Bricklayer	48 (11.5)
Carpenter	60 (14.4)
Electrician	34 (8.2)
Tailor	160 (38.5)
Hair stylist	72 (17.3)
Others	42 (10.1)
Monthly income (Naira)	
<30,000	304 (73.1)
≥30,000	112 (26.9)
Median income	10,000
Income range	5,000-200,000

SD: Standard deviation

care brings about serious barrier to health-seeking behaviour in the Nigeria population. To overcome this challenge and protect the poor from the catastrophic nature of health-care financing, prepayment schemes and community-based insurance schemes have been recommended.[9]

The World Health Organisation defines health-care financing as a function of the health system concerned with the mobilisation, accumulation, and allocation of fund to cover the health needs of the people individually and collectively in the health system.[10] Health-care financing has three major functions; mobilisation of revenue, resources pooling and service purchase/resource allocation; these functions are based on the principles which include equity, effectiveness, comprehensiveness and efficiency.[10]

Health insurance which is defined as a system of advance financing of health expenditure through contributions, premiums, or taxes paid into a common pool to pay partly or wholly for health services specified by a policy or plan is one of the major ways by which health care is financed in Nigeria.[1,10]

The Community-Based Health Insurance Scheme (CBHIS) is one of the insurance programmes of the health sector financing as prescribed by the National Health Insurance Scheme (NHIS) which was established by Act 35 of the 1999 of the Nigerian constitution.[5,8] According to the NHIS, Community-Based Social Health Insurance programme is defined as a nonprofit making programme for a group of individuals/households or occupational-based groups. It was formed on the basis of the ethics of mutual support and the collective pooling of health risks, in which members take part in its management.[2,5,8] The CBHIS pools the risk of high costs of care across a large number of people, allowing them to pay a premium based on the average cost of medical care for the group of people.[11] This risk-spreading function helps make the cost of health reasonably affordable for most people.[11] It attempts to resolve the challenges of increasing health needs and scare resources in poor communities as well as providing protection for the disadvantaged and vulnerable groups through cross-subsidisation. To achieve best result, these schemes should be initiated with strong empirical information that can help in benchmarking cost-sharing potentials and other forms of participation of households in the community.[1]

The NHIS has little coverage and currently coverage is about 10% of the general population including the Civil Service, the Armed Forces, paramilitary forces, and other employees of the Federal Government.[4,5,12] Studies have shown that the awareness and knowledge of CBHIS is particularly among the general population and even worse among rural dwellers and artisans.[4,5,7,12]

The aim of this study is to determine the knowledge and factors associated with Community-Based Social Health Insurance among artisans in Ekiti State.

Materials and Methods

This survey is a cross-sectional study carried out among 416 artisans in Ido-Osi Local Government Area (LGA) of Ekiti State, Southwest Nigeria. Ekiti State which is one of the thirty-six states in Nigeria is located in the southwestern part of the country. The state was created from the old Ondo State in October 1996, and the Headquarter is located in Ado-Ekiti. There are three senatorial districts (Ekiti Central, Ekiti South, and Ekiti North senatorial districts) in the state. The state is divided into 16 LGAs. Ido-Osi LGA is one of the 16 LGAs and located within the Ekiti North Senatorial District. It is bounded in the North by Usi-Ekiti, in the Northwest by Ilogbo,

Table 2: Respondent's awareness of Community-Based Health Insurance Scheme

Variable	Frequency, *n* (%) (*n*=416)
Awareness about health insurance	
Yes	221 (53.1)
No	195 (46.9)
Source of awareness about health insurance (*n*=221)	
Friends	57 (25.8)
Colleagues at workplace	44 (19.9)
Media	29 (13.1)
Health-care provider	57 (25.8)
HMO official	8 (3.6)
Others	26 (11.8)
Awareness about CBHIS	
Yes	100 (24.0)
No	316 (76.0)
Source of awareness about CBHIS (*n*=100)	
Friends	26 (26.0)
Colleagues at workplace	12 (12.0)
Media	6 (6.0)
Health-care provider	34 (34.0)
HMO official	8 (8.0)
Others	14 (14.0)

HMO: Health maintenance organisations, CBHIS: Community-Based Health Insurance Scheme

Table 3: Respondent's level of knowledge of Community-Based Health Insurance Scheme

Variable	Frequency, *n* (%) (*n*=146)
Knowledge of CBHIS	
Good (≥50%)	76 (18.3)
Poor (<50%)	340 (81.7)

CBHIS: Community-Based Health Insurance Scheme

and in the East by Ipere and Iludun while Igbole and Ifisin were on its southern part. The estimated population of the local government is 218,100 (projected from 2016 population census) and its headquarter is in Ido-Ekiti.[13]

The study populations were artisans in different occupational groups in Ekiti State vis-a-vis bricklayers, carpenters, electricians, hair stylist, tailors, etc., Respondents were selected using systematic random sampling technique. Lists of artisans (containing names, business address, and phone numbers) in each of the town in the LGA were collected and sample interval was calculated by dividing the sample frame (total number of artisans on the list) by the allocated number of questionnaires. Using the calculated sample interval, the selected artisans were followed up at their respective place of work during the day. Data were collated using an interviewer-administered semi-structured questionnaire between October 2020 and February 2021 after the artisans have been briefed on the aim of the study and verbal consent obtained. The questionnaire has four sections which assessed the sociodemographic characteristics, awareness/source of information on health insurance, knowledge (definition, running, payments, benefits, and challenges of CBHIS), and factors affecting knowledge of CBHIS. This instrument was assessed by public health experts and epidemiologists from Federal Teaching Hospital, Ido-Ekiti. It was tested for internal validity using reliability test and Cronbach's alpha coefficient of 0.80 was gotten.

Data collected were analysed using IBM Statistical Package for Social Sciences (SPSS) version 23. Data were presented in tables to show frequency, percentages, mean, and standard deviation at univariate level of analysis and Chi-square was used to determine the association between dependent and independent variables at bivariate and multivariate levels. $P < 0.05$ was taken as statistically significant. The knowledge section had 12 questions ranging from definition, benefits, how it is run, premium payment, and challenges. Correct answers were scored 1 while incorrect answers were scored 0. The total knowledge score varied between 0 and 12 and cumulative mean cutoff was set at 6 such that respondents who scored this value and above this value were regarded as having good knowledge while those who scored below were regarded has having poor knowledge.

Ethical approval for the study was gotten from the Human Ethics and Research Committee, Federal Teaching Hospital Ido-Ekiti, Ekiti State, Nigeria. Participation was voluntary and confidentiality was maintained. Informed consent was taken from all participants.

Results

Sociodemographic characteristics

A total of 416 respondents participated in the study. The mean age of the respondents was 29.7 ± 10.9 years with a range of 15–75 years and the females were in the majority (57.5%). About nine-tenth of the respondents were Yoruba (88.9%) and Christians (88.5%). 94.7% of the respondents had postprimary education (47.8% had secondary education while 46.9% had tertiary education). Tailoring (38.5%) had the largest percentage among the artisan's group while majority (73.1%) earned below the ₦30,000 country's minimum wage benchmark [Table 1].

Awareness and source of information on health insurance

The awareness of health insurance generally among respondents was 53.1% while only 24% were aware of CBHIS. Sources of information include health-care providers (34.0%), friends (26.0%), colleagues at workplace (12.0%), and media (6.0%) with health maintenance organisations only contributing 8.0% to respondents' awareness [Table 2].

Knowledge of Community-Based Health Insurance Scheme

The knowledge of Community-Based Health Insurance among respondents was 18.3% [Table 3].

Factors associated with knowledge of Community-Based Health Insurance Scheme

Factors with significant association with knowledge of Community-Based Health Insurance in this study include

gender (P = 0.008), level of education (P = 0.003), family income (P = 0.016), and frequency of illness (P = 0.019) [Table 4].

Predictors of Community-Based Health Insurance

Female respondents were 8 times more knowledgeable on CBHIS than their male counterparts while those with tertiary education were 23 times more knowledgeable than those with no formal education. Respondents whose monthly income were ₦30,000 or more were about twice more knowledgeable than those who earned lesser. Furthermore, artisans who often fell ill were about seven times more knowledgeable than those who seldom get sick [Table 5].

Discussion

The awareness of health insurance generally among the respondents was 53% while the awareness of CBHIS itself was significantly lower with just 24%. This low level of awareness may be because most stakeholders in health insurance matters do not pay attention to the informal sector and this may be the cause of poor access to quality health-care services. This finding about health insurance awareness in general is similar to the outcome of a study done in Enugu East LGA where it was revealed that 56.8% of the respondents were aware of NHIS.[14] However, it is higher than finding among artisans in Abakaliki market where only 28.7% of respondents were aware of health insurance.[15] This study finding on CBHIS awareness (24%) is similar to findings in a study among rural household in Ekiti State where an awareness rate of 23.1% of CBHIS was recorded.[5] It is, however, higher than as reported in the study done in Abakaliki where 3.9% of the artisans were aware of CBHIS. This study finding is lower than as reported in a study among rural dwellers in functional communication training (FCT), Abuja State, where 84.3% of the participants were aware of CBHI.[16] This higher value in the FCT may be because it was done among the general population and may also be due to better awareness campaign in the power city of the country.

The knowledge of CBHIS in this study was low with only 18.30% of the study participant having good knowledge of the scheme. This may due to poor awareness and lack of adequate information among this group of workers. The poor knowledge may be a reason for the present low enrollment being presently witnessed in the country and subsequent poor access to quality health-care services. This finding is higher than as was recorded in a study on HI Scheme among artisans in Lagos State, Nigeria, where the overall knowledge of health insurance was 6.5% and another study in a suburb of Lagos State where only 9% had good knowledge of CBHIS.[17,18] It is also higher than the 2.5% good knowledge score reported in a study on knowledge of CBHIS among household heads in a rural community of Ilorin, Nigeria.[19] However, it is lower than the finding in a study done in a rural community of North Central and Northwest of Nigeria zones of the country where 28.7% and 52.2% of the respondents have good knowledge of CBHIS, respectively.[7,20] The difference between findings in this study and other studies may be as a result of differences in study population, geographical locations, and literacy level of respondents in each of the studies.

Table 4: Sociodemographic factors associated with knowledge of Community-Based Health Insurance Scheme among respondents

Variable	Knowledge about CBHIS		χ^2	P
	Good, *n* (%)	Poor, *n* (%)		
Age group (years)				
<20	14 (26.9)	38 (73.1)	8.488	0.075
20-29	24 (13.1)	159 (86.9)		
30-39	20 (24.4)	62 (75.6)		
40-49	16 (19.5)	66 (80.5)		
≥50	2 (11.8)	15 (88.2)		
Gender				
Male	22 (12.4)	155 (87.6)	7.037	0.008
Female	54 (22.6)	185 (77.4)		
Marital status				
Married	42 (19.8)	170 (80.2)	3.918	0.270
Single	34 (18.1)	154 (81.9)		
Separated	0	10 (100.0)		
Widowed	0	6 (100.0)		
Level of education				
No formal education	0	4 (100.0)	14.007	0.003
Primary	0	18 (100.0)		
Secondary	27 (13.6)	172 (86.4)		
Tertiary	49 (25.1)	146 (74.9)		
Ethnicity				
Yoruba	71 (19.2)	299 (80.8)	5.691	0.128
Igbo	1 (4.8)	20 (95.2)		
Hausa	1 (6.2)	15 (93.8)		
Others	3 (33.3)	6 (66.7)		
Occupation				
Bricklayer	12 (25.0)	36 (75.0)	7.789	0.168
Carpenter	9 (15.0)	51 (85.0)		
Electrician	2 (5.9)	32 (94.1)		
Tailor	27 (16.9)	133 (83.1)		
Hair stylist	18 (25.0)	54 (75.0)		
Others	8 (19.0)	6 (66.7)		
Religion				
Christianity	69 (18.8)	299 (81.2)	1.500	0.682
Islam	5 (19.2)	21 (80.8)		
Traditional	1 (6.7)	14 (93.3)		
Others	1 (14.3)	6 (85.7)		
Income (Naira)				
<30,000	64 (21.1)	240 (78.9)	5.859	0.016
≥30,000	12 (10.7)	100 (89.3)		
Frequency of illness				
Often (visit hospital monthly)	21 (28.0)	54 (72.0)	7.914	0.019
Sometimes (once in a year)	12 (11.5)	92 (88.5)		
Seldom (not sick in the last three years)	43 (18.1)	194 (81.9)		

CBHIS: Community-Based Health Insurance Scheme

Table 5: A binary logistic regression for the predictors of knowledge of Community-Based Health Insurance Scheme among respondents

Variable	AOR	95% CI		*P*
		Lower	Upper	
Gender				
Male (ref)	1.000			
Female	8.134	3.280	20.722	<0.001
Level of education				
No formal education (ref)	1.000			
Primary	1.426	0.044	40.157	0.814
Secondary	10.088	0.218	336.420	0.192
Tertiary	23.119	1.029	845.495	0.022
Income (Naira)				
<30,000 (ref)	1.000			
≥30,000	2.244	1.278	6.502	0.035
Frequency of illness				
Seldom (ref) (visit hospital monthly)	1.000			
Sometimes (once in a year)	4.136	1.434	14.858	0.003
Often (visit hospital monthly)	6.724	1.594	26.701	0.008

Ref: Reference category, AOR: Adjusted odd ratio, CI: Confidence interval

Significant factors and predictors of knowledge of CBHIS in this study include female gender, tertiary level of education, higher family income, and higher frequency of illness. This better predictor of knowledge among females may be a good indicator for knowledge spread as they may pass this down to their children. Furthermore, uptake may increase as they tend to access health-care services than the male. This finding is similar to as documented in an Ethiopian study about CBHIS where income, education, and occupation were found to have significant association with uptake of CBHIS.[21] Furthermore, level of education has also been seen as a factor with significant relationship with knowledge of health insurance according to studies done in Aleshinloye market, Oyo, Ibadan, and among workers in the informal sector of health district of Douala, Cameroon.[22,23] Furthermore, the findings in this study as regards higher income being a significant factor and predictor of knowledge of CBHIS are similar to as documented in studies done in the northwestern part of the country and among artisans in Abakaliki where income was reported as significant factor to knowledge of CBHI.[7,11] However, the significant association as regards gender and level of education to knowledge was in contrast to as documented in the above studies done in Northwest, Nigeria, and Abakaliki.[7,11]

Conclusion

The awareness and knowledge of CBHIS among artisans in Ekiti State is low. Factors associated with this low knowledge include gender, level of education, family income, and frequency of illness. It is, therefore, recommended that public awareness campaign on benefits of CBHIS should be intensified importantly among workers in the informal sector by government and nongovernmental agencies.

Limitations

Some artisans were busy with their customers during the period of scheduled visit for the data collection. The research assistants had to wait till when they were less busy and this prolonged the planned period of data collection.

Due to literacy level, some artisans were not willing to participate and it took prolonged persuasion and interference of the branch chairman at times for them to eventually agree.

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Conflicts of interest

There are no conflicts of interest.

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