Original Research Article

ASSESSING THE ASSOCIATION BETWEEN CLIENTS' LEVEL OF SATISFACTION AND RETENTION OF NATIONAL HEALTH INSURANCE SCHEME MEMBERSHIP IN GHANA: A STUDY IN THE GREATER ACCRA REGION

Abstract

Introduction: Since the implementation of National Health Insurance Scheme (NHIS), fewer Ghanaians have been actively enrolled. Recently, there has been dwindling enrollment rate amongst the populace. Studies have revealed that clients' satisfaction with services received may influence repurchasing behaviour.

Aim: This study aimed at investigating the association between clients' satisfaction with services and the intention to maintain NHIS membership.

Methodology: This study was a household cross-sectional survey conducted in the Greater Accra Region. Data was gathered via distribution of 424 well-structured questionnaires amongst enrollees who were 18 years and above. Systematic random sampling was used in the selection of households and data was collected between November, 2018 and February, 2019. Client's level of satisfaction was assessed on a Likert scale. The data was analyzed using SPSS version 23, chi-square test and Cramer's V test.

Results: The response rate for this study was 94.3% and the result revealed that 60% of the participants expressed satisfaction with NHIS services, 34.5% were neutral, and 5.5% dissatisfied with NHIS services. Few of the respondents (28.3%) expressed the intention to maintain NHIS membership. Furthermore, there was no statistical association between clients' overall satisfaction and retention of NHIS membership (p=.24). Retention of membership with NHIS was weakly associated with satisfaction with premium (p=.01, Cramer's V=.16), geographical accessibility of health care facilities (p=.03, Cramer's V=.13), and healthcare provider and clients' interpersonal relationship (p=.04, Cramer's=.12)

Conclusion: Clients' satisfaction with NHIS services is necessary but not sufficient to influence retention of membership with the scheme. Hence, there is the need for health care providers to maintain good interpersonal relationship with clients, ensure geographical accessibility of NHIS accredited health care facilities, and further research of predictors to retention of NHIS

membership is recommended.

Keywords: Enrollees, Clients, National Health Insurance Scheme, Retention and Satisfaction.

1. INTRODUCTION

Universal access to essential health care services is accepted as a strategic policy intervention for the socio-economic development in any country [1, 2]. Accessibility, equitability and affordability of quality health care services can be used as a fundamental device to mitigate the cycle of poverty, especially in developing countries. Globally, an estimated 1.3 billion people cannot access affordable essential health care services and others become poor resulting from out-of-pocket funding of health care expenditure [3, 4]. NHIS is accepted as a way of improving utilization of quality health care services and efficiently managing resources [5, 6].

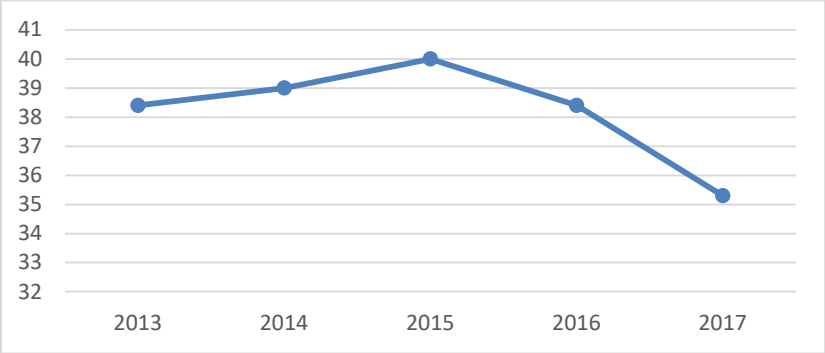
Ghana's NHIS Act was passed in 2003 and its policy purposed that in less than a decade after its implementation, there should be universal, equitable, acceptable, and accessible health care to all the populace [7]. Activities of the scheme are managed by the national health insurance authority [8]. The law mandates every resident of the country to enroll with the scheme. Conversely, in practice, enrollment, and renewal of membership with the scheme are voluntary [9].

As presented by figure 1, Ghana's NHIS is faced with dwindling enrollment rate from 38.4%, 39%, 40%, 38.4 and 35.3% between 2013, 2014, 2015, 2016 and 2017 [10], thus, presenting a major challenge towards achieving the goal of Universal Health Coverage (UHC) in the country [9]. Research has shown that attitude of service providers is negative, enrollees wait for hours at health facilities, and, in some cases, they are denied treatment due to delay on the side of NHIS to reimburse funds to service providers. More so, clients sometimes fund prescribed medications via out-of-pocket payment [11, 12, 13]. With reference to the aforementioned points, it is obvious that people are likely not to subscribe to the scheme in subsequent years if these loopholes in service provision are not duly rectified. If residents refuse to enroll with NHIS, it will hinder the objective of achieving UHC with the scheme [14].

Hence, to achieve UHC under NHIS, it is of paramount importance to enhance the quality of services provided by NHIS. To achieve this, it is essential to investigate clients' level of satisfaction with NHIS services. Because clients' level of satisfaction with services received can be used as a measure of quality services provided and can be used as a guide to enhance the quality of services provided by an organisation [15]. Also, consumers' satisfaction with the services of their current service provider is an important predictor to repurchasing behaviour of clients [16]. Reitsma-van Rooijen et al. [17] showed that clients' satisfaction with the service of their current insurer is a fundamental predictor to renewal behaviour amongst clients. If enrollees are faced with a lot of challenges after joining the scheme, there is a high possibility of withdrawing membership in the future [18].

Conversely, literatures have pointed out that a client's satisfaction with the services of a provider is worthless [19,20]. Because a satisfied client will still purchase the same product from other providers. However, a client may not be totally satisfied with the service rendered by the provider but still will repurchase from the same provider because of affordability or convenient location of the service. Hence, satisfaction is not related to clients' repurchasing intention.

There is paucity of information regarding the relationship between clients' level of satisfaction with NHIS and retention of membership with the scheme in Ghana. Therefore, this study sought to measure clients' level of satisfaction with NHIS, assess the intention to maintain membership with NHIS and identify the relationship between clients' level of satisfaction with NHIS and retention of NHIS membership in Ghana.



Source: Sasu, D.D. (2021). **Figure 1: Enrolment with NHIS from 2013 to 2017**

2. MATERIAL AND METHOD

Study Design

This study is a cross-sectional descriptive study aimed at ascertaining clients' level of satisfaction with NHIS in Ghana and its relationship with retention of NHIS membership. The research adopted quantitative approach which includes the use of a structured questionnaire to gather primary data on clients' level of satisfaction with NHIS and retention of NHIS membership. This is because this approach offers an opportunity for recruitment of large sample size and allows generalization of results [21].

Study Area

The study was conducted in the Greater Accra Region, which is located in the Coastal Savannah ecological zone of Ghana. The region is the second most populated region, and represents 16.3% of Ghana's total population [22]. Greater Accra Region has an active NHIS membership of 1,280,257 representing 13% of its total population [22,23] The region was purposively selected because according to the 2010 Housing and Demographic Statistics of Ghana, it had the highest inter migration rate. Hence, Greater Accra region houses people from all the different cultures, socio- economic backgrounds in Ghana which makes it a suitable region to represent Ghana as a whole. In addition, Greater Accra region is one of the regions in the country with high NHIS enrollment rate. Therefore, it will assist in gaining adequate and precise responses about clients' level of satisfaction with NHIS services.

Sample Size and Sampling technique

Sample size for this study was determined by using simplified formula for sample size calculation [24] and 10% of the data was considered for non-response rate and other issues related to data collection process. A final sample size of 424 respondents was obtained for this study. Data was collected via household survey with pretested well-structured questionnaires. Respondents were chosen from various houses that were selected through systematic sampling techniques using random start. In each of these selected houses, a respondent above the age of 18 years (usually household heads) with active NHIS membership card was interviewed based on their willingness to participate in the

study. In the event whereby the selected house had no suitable respondent, the adjacent house was visited in order to find a suitable respondent.

Data Collection

This study used this procedure in achieving its sample size [25, 26]. The primary data for the study was collected by well–trained personnel who could speak both English and the local languages: "Ga" and "Twi" between November, 2018 and December, 2019. Prior to the primary data collection, the developed questionnaire was pre-tested using 20 insured persons who were residents of Accra and based on the results, modifications were made to the data collection tool to improve upon accuracy of results. The questionnaire was produced in English and translated from English to the local language for respondents who had difficulties in reading and or understanding English and responses were then translated back into English.

Variables were studied and formulated based on review of various literatures [5, 27]. Respondents were asked questions with respect to 11 items relating to their satisfaction with NHIS services. Responses were rated on 5-point Likert Scale of Strongly Agreed, Agreed, Neutral, Disagreed and Strongly Disagreed. The 11 items assessed are as follows:

i. Geographical accessibility of NHIS services in terms of convenient location of offices
ii. Satisfaction with time spent to enroll with NHIS
iii. NHIS workers-client's interpersonal relationships
iv. Clients' satisfaction with NHIS premium
v. Healthcare providers and clients' interpersonal relationships (doctors, nurses, pharmacists and medical record staffs)
vi. Accessibility of laboratory services at healthcare facilities
vii. Accessibility of prescribed medication
viii. Geographical accessibility of health care facilities
ix. Time spent to access services at health care facilities
x. The individual's general satisfaction with the quality of care rendered at accredited healthcare facilities
xi. Respondents' overall level of satisfaction with NHIS services.

Cronbach alpha's test value which comprised 11 items was 0.783. The study also conducted a face and content validity tests. Respondents were asked if they would continue to enroll with NHIS and they were expected to answer "Yes" or "No" to the question. A "Yes" response was considered that respondent would maintain membership with the scheme whilst a "No" response was viewed as respondent would withdraw membership from the scheme.

Data analysis and presentation

Primary data was computed using Statistical Package for Social Sciences (SPSS) version 23 and the frequency distribution of variables was checked to identify and rectify any errors relating to data entry. Also, descriptive statistics were used as a scale of measurement of variables and results were organised into quantitative forms such as frequencies, percentages, figures and tables. The socio-economic and demographic characteristics of participants were analysed using frequencies and percentages. Age was classified as young adult (18-39 years) and older adults (40 years -70+) [28]. Marital status was also grouped as married and single (never married, divorced, widowed and consensual union); educational status as uneducated, low education (primary and secondary school), and high education (tertiary and university education); and occupational status as employed, unemployed and non-economically active persons (students, pensioners, homemakers and others). A five-point Likert Scale was used to score NHIS satisfaction questionnaire. Responses were recorded and organised as follows: strongly agreed and agreed were considered satisfied, neutral was considered as neutral satisfaction and strongly disagreed and disagreed were viewed as dissatisfied with the item. The study also conducted a Pearson's' chi square (χ^2) test of independence to determine statistically significant relationships between variables and Cramer V's to identify the strength of association between variables. A p =.05 was used to describe statistical significance of variables in this study.

3. **Results and Discussion**

A total of 424 participants were enrolled for this study and a response rate of 94.3% was used for data analysis. As depicted in Table 1, 54.3% of the respondents were women, 59.3% were older adults, 63.3% were married, 64.0% had low level of education, 73.0% were employed, 62.5% perceived themselves as healthy people, 55.3% were high income earners and 50.8% resided in urban settings.

As indicated in Table 2, 57.5% of the participants expressed satisfaction with cost of premium, 56.0% were satisfied with accessibility of prescribed drugs and 50.3% expressed satisfaction with NHIS offices workers' interpersonal relationship with client. Conversely, 58.3% and 50.0% of the respondents were dissatisfied with accessibility of laboratory services, and geographical accessibility of NHIS offices respectively. Majority (60%) of the respondents expressed neutral level of satisfaction with overall level of satisfaction with NHIS services. Depicted by Figure 2, 72.8% of the participants intended not to maintain membership with the scheme.

Chi-square test was conducted to identify the association between a client's level of satisfaction with NHIS and retention of NHIS membership. P= .05 was used to describe statistical significance of variables and Cramer V's ≤ .02 but ≥ .04 was considered to depict a statistically weak association between variables in this study. The results indicated that clients' overall level of satisfaction with NHIS had no statistical association with retention of NHIS membership (p= .24). The results of the chi-square test and Cramer V's test revealed that clients' retention of NHIS membership was statistically weakly associated with clients' satisfaction with healthcare providers and clients' interpersonal relationship (p = .04, Cramer V's=.126), satisfaction with geographical accessibility of healthcare facilities (p = .03, Cramer V's=.13) and satisfaction with the cost of premium (p =.01, Cramer V's= .16). This result is presented by Table 3.

Table 1. Demographic background and perceived health status of respondents (N=400).

Variable	Category	Frequency	Percentage (%)
Gender	Males	183	45.75
	Females	217	54.25
Age	Young adult	237	59.25
	Old adult	163	40.75
Marital Status	Single	147	36.75
	Married	253	63.25
Educational status	Uneducated	59	14.75
	Lower education	262	65.5
	Higher education	79	19.75
Employment status	Unemployed	34	8.5
	Employed	292	73.0
	Non economically active	74	18.5
Level of income	Low income earner	179	44.75
	High income earner	221	55.25
Residential zone	Urban	203	50.75
	Rural	197	49.25

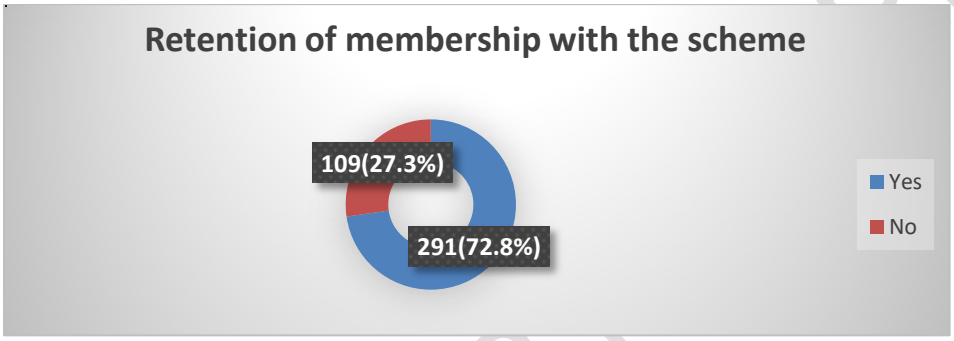
Source: Fieldwork, 2019.

Table 2, Overall level of satisfaction with NHIS and retention of membership

Dimension	Satisfied (%)	Neutral (%)	Dissatisfied (%)

Time spent to enroll on the scheme	134(33.5)	96(24.0)	170(42.5)
Satisfaction with NHIS workers-Clients' interpersonal relationship	201(50.25)	80(20.0)	119(29.75)
Geographical Accessibility of healthcare facilities	139(34.75)	97(24.25)	164(41.0)
Satisfaction with cost of premium	230(57.5)	47(11.75)	123(30.75)
Geographical Accessibility to NHIS offices	99(24.75)	101(25.25)	200(50.0)
Accessibility of laboratory services	106(26.5)	79(19.75)	215(53.75)
Accessibility of prescribed drugs	224(56.0)	87(21.75)	89(22.25)
Satisfaction with the quality of healthcare delivery	117(29.25)	197(49.25)	86(21.5)
Satisfaction with Healthcare Provider-Clients' interpersonal relationship	201(50.25)	80(20.0)	119(29.75)
Time spent to enroll	134(33.5)	96(24.0)	170(42.5)
Overall satisfaction	138(34.5)	240(60.0)	22(5.5)

Source: Fieldwork, 2019



Source: Fieldwork, 2019: Figure 2: Retention of NHIS membership

Table 3. Association between clients' level of satisfaction with NHIS services and retention of NHIS membership

Retention of NHIS Membership	Clients' Satisfaction Category			Chi-square	P-Value	Cramer's *V*
	Satisfied	Neutral	Dissatisfied			
Time spent to enroll into the scheme						
Yes	34	22	53	2.47	.29	
No	100	74	117			
Satisfaction with NHIS workers-Clients' interpersonal relationship						
Yes	54	16	39	3.97	.12	
No	147	64	80			
Geographical Accessibility of healthcare facilities						
Yes	56	23	30	6.8	.03*	.13
No	108	74	109			
Satisfaction with cost of premium						.16
Yes	70	18	21	10.5	.01*	

No	102	29	160			
Geographical Accessibility to NHIS offices						
Yes	25	24	60	1.6	.45	
No	74	77	140			
Accessibility of laboratory services						
Yes	34	20	55	1.7	.42	
No	72	59	160			
Accessibility of prescribed drugs						
Yes	54	25	30	3.1	.21	
No	170	72	59			
Satisfaction with the quality of healthcare delivery				2.8	.24	
Yes	38	52	19			
No	79	145	67			
Satisfaction with Healthcare Provider-Clients' interpersonal relationship						
Yes	32	30	47	6.33	.04*	.13
No	121	79	91			
Overall satisfaction				2.9	.23	
Yes	40	60	9			
No	13	180	98			

P-value= .05; Cramer's *V 0.00 to <0.01 (no association), ≥ 0.10 to <0.20(weak association), 0.20 ≥ to <0.40(moderate association), ≥ 0.40 (strong association).* Adapted from Kotrilik & Williams (2003) in Lee (2016)

Discussion

From the findings of the study, females constituted the majority of the respondents. This can be attributed to the fact that the female gender constitutes the majority in the region and Ghana as a whole [30]. Moreover, the female is traditionally the home maker which makes them easily accessible in household surveys and thus have a greater enrolment rate in NHIS as compared to males [31, 32]. The results also showed that majority of the respondents were married and old. These findings are in line with existing literatures [31, 32] Married persons purchase health insurance to serve as source of financial protection for them, their spouse, and offspring in terms of ill-health. In addition, as the individual ages, health turns to deteriorate causing the individual to purchase health insurance to serve as a means of protection from catastrophic healthcare expenditures. This study also observed that majority of the respondents were employed and were high income earners. Previous studies have revealed that income is a good predictor to enrolment in NHIS [33] As the individual is employed, premium may be paid by the employer and or even when paid by the enrollee, the financial barrier to enrolment due to cost of premium will be mitigated due to a stable source of income.

In general, the study observed a neutral level of satisfaction amongst enrollees with NHIS. NHIS assists households by minimizing expenditure in accessing quality healthcare yet a great amount of household income is still absorbed by catastrophic healthcare cost due to illegal payments made in the form of consultation fees and payment for medications that are stipulated to be free at the point of service delivery [34.] In addition, NHIS only makes primary healthcare services accessible to the clients. However, in terms of secondary and tertiary health care services, the scheme plays minimal and or no role in financing healthcare cost [35.]

Regarding retention of NHIS membership amongst clients, the study observed a low retention rate as more than 70% of insured were not willing to maintain their membership with the scheme. Clients' intent to repurchase a service is a strong indicator to future repurchasing behaviour. The low retention rate with NHIS may be attributed to satisfaction with

premium, geographical accessibility of health care facilities, and healthcare service providers' interpersonal relationship with client.

The study observed that there was no significant statistical association between overall satisfaction with NHIS services and retention of NHIS membership. This finding agrees with that of Adei et al. [19]. The researchers stated that although majority of respondents were not satisfied with services provided under NHIS, they renewed their membership with the scheme. However, this current study observed that the client intention to renew NHIS membership was weakly associated with the level of satisfaction with healthcare service providers' interpersonal relationship with client, satisfaction with premium, and satisfaction with geographical accessibility of healthcare facilities. This finding is in line with existing literatures [26, 36]. Kotoh, Aryeetey, and Van der [36] indicated that retention of membership with NHIS is positively influenced by satisfaction with healthcare provider and client interpersonal relationship. Provision of health care is a service, hence, the provider and the client are mostly in direct contact. If health care providers form and maintain good relationship with enrollees, it would motivate clients to use the same provider, stay enrolled with NHIS and by word of mouth, encourage friends and family to enroll with the NHIS and use the same health care provider. Boateng & Dadson [26] acknowledged that enrollees who are satisfied with premium would renew membership with the scheme. Also, researchers have acknowledged that the cost of premium strongly influences retention of NHIS membership [37]. This can be stemmed from the fact that the more satisfied the client is with the cost of premium, the more the client will be willing to pay and stay enrolled with the scheme regardless of uncertainty of future healthcare needs. Conversely, if the client is dissatisfied with the cost of premium, the client will prefer to spend income on other pressing needs instead of maintaining membership to protecting against uncertain healthcare expenditures.

Moreover, if enrollees would have to travel long distance to access NHIS accredited health care facilities, it will deter them from maintaining membership with the scheme as they can seek for health care services from other health care providers such as the pharmacist and the traditional healer who are just at their door steps or even engage in self-medication. On the other hand, if enrollees can conveniently access NHIS accredited health care facilities in their communities, it would encourage them to stay enrolled with the scheme. However, all these factors were weakly associated with retention of NHIS membership [29] indicating that a satisfied client may still decide not to maintain membership with the scheme.

4. CONCLUSION

In general, the study observed neutral level of satisfaction with NHIS services, and a low retention rate of NHIS membership amongst enrollees. Clients' overall level of satisfaction with NHIS was not statistically associated with retention of NHIS membership, instead, retention of membership was weakly influenced by clients' satisfaction with healthcare providers' interpersonal relationship with client, cost of premium and geographical accessibility of healthcare facilities. Hence, client's overall level of satisfaction with NHIS services may not play any paramount role in the intention to maintain NHIS membership. There is the need for health care providers to maintain good interpersonal relationship with clients, ensure geographical accessibility of accredited NHIS health care facilities, and further research the predictors to retention of NHIS membership in the country.

CONSENT

Prior to questionnaire administration, respondents were informed that the responses provided would be kept

confidentially, used solely for academic purposes and the individual would not incur any risks for their involvement in this study. In addition, they were informed of their voluntary participation in the study and they had the right to withdraw from the study at any point in time and anonymity of participants was ensured. Information sources and references used in this study were duly acknowledged.

5. **Limitation of the study**

The study has a limitation of generalizability of findings. The study was conducted by using only a single region in Ghana due to financial constrictions. Clients' satisfaction with NHIS may be influenced by socio-economic and demographic factors which may differ from one region to the other regions in the country. The selected region used in the study is inhabited by people from all the diverse socio-economic and demographic background in Ghana so is believed that the findings reflect association between clients' level of satisfaction and retention of national health insurance scheme membership in Ghana**.** . However, the results should be generalized with care

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