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NHIS Enrollees' Satisfaction with Health Care Services Provided by HMO-Accredited Health Facilities, and Non-Enrollees' Willingness to Participate in the NHIS and Pay for Health Insurance in Kaduna Metropolis

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Abstract

The Health Maintenance Organizations (HMO) which has the statutory responsibility of organizing and managing the activities of the Health care Providers (Health facilities) in ensuring that enrollees of the National Health Insurance Scheme (NHIS) are provided with good and quality health care services as it is alleged that some of the health care providers (health facilities) have failed in their primary responsibility of providing good and quality health care services to their clients which include NHIS enrollees. This study was carried out with the aim of evaluating NHIS enrollees' satisfaction with health care services accessed in HMO-accredited health facilities, and non-enrollees' readiness to participate in the scheme and make payment for health insurance in Kaduna metropolis. A cross-sectional survey research design was adopted for the study, in which 384 NHIS enrollees and non-enrollees were selected using stratified random sampling technique. The study used quantitative data which were gathered through the use of a self-administered structured questionnaire and were analyzed using frequency/ percentage distribution analysis, Chi-square test and independent samples t-test with the aid of the Statistical Package for the Social Sciences (SPSS) version 23.0. The results of the study revealed that enrollees of NHIS and non-enrollees of NHIS were satisfied with the health care services provided by the HMO-accredited health facilities in Kaduna metropolis. The results also revealed that there was significant difference in the level of satisfaction between enrollees of NHIS and non-enrollees of NHIS, with non-enrollees having higher satisfaction with the health care services. The results also revealed that non-enrollees of the NHIS in Kaduna metropolis were willing to participate in the NHIS and make payments for health insurance. The study concludes that NHIS enrollees are satisfied with the health care services accessed in the HMO-accredited health facilities, and non-NHIS enrollees are willing to participate in the scheme and make payments for health insurance in Kaduna Metropolis. The study therefore, recommends among others that HMOs should set up monitoring agencies to monitor the activities and services of HMO-accredited health facilities in order to improve the services of the health facilities and ultimately, enhance the satisfaction level of the NHIS enrollees.

Background to the Study

Enrollees' satisfaction is one of the major indices of quality care and health care services outcome and it is gaining importance globally as one of the main tools for the assessment of quality of health care delivery and as a means of measuring the effectiveness of health services (Iloh, Ofoedu, Njoku, Odu, Ifed igbo, and Iwuamanam, 2012). Enrollees' satisfaction is the patient's judgment on the quality and outcome of care. It is the extent to which enrollees feel that their needs and expectations are being met by the service provider (Zohrevandi and Tajik, 2014). Evaluation of enrollees' satisfaction is of great significance in assessing the quality of care and health care services outcome as indices assessed from the enrollees' perspective are recognized as valid and acceptable indicators of quality of care. Enrollees' satisfaction surveys have also been gaining attention as significant sources of information and insightful feedbacks for identifying gaps and developing effective action plans for quality improvement (Zohrevandi and Tajik, 2014; Al-Abri and Al-Balushi, 2014). According to Gadallah, Allam, Ahmed, and ElShabrawy (2010) and Iliyasu, Abubakar, Abubakar, Lawan, and Gajida (2010), the perception and satisfaction of enrollees with services has been known to influence their access, continuous use of health services and health outcome; as satisfied enrollees tend to comply with medical advice and instructions. Enrollees' satisfaction is not only an end goal of treatment; it is also a means towards improving treatment outcomes (Dubina, O'Neill, and Feldman, 2009).

The National Health Insurance Scheme (NHIS) in Nigeria is directed at providing health care services, with a commitment to securing universal coverage and access to adequate and affordable healthcare; in order to improve the health status of Nigerians (NHIS Operational Guidelines, 2012). Nigeria is yet to attain the ranks of a developed economy due to lack of structural change, among other factors. Health maintenance organizations (HMOs) are institutions that both insure and provide health care services to an enrolled population in exchange for pre-paid per capital payment. HMOs have become a viable sector of the medical economy and are potential significant vehicles for controlling health care costs. It is an organization that provides or arranges managed care for health insurance and acts as a liaison with health care providers (hospitals, doctors, etc.) on a prepaid basis. They are also to ensure adherence to quality services for their enrollees. It is widely acknowledged that the performance of a national health system is largely determined by its financing and payment mechanism (Campbell, 2007). It is therefore of little surprise that one of the most important policy goal and objective of a national health system is to secure a stable and sustainable ways and means by which funds are mobilized to pay for essential health services in equitable, fair and just manner, such that everyone is protected against the catastrophic and poverty induced effects of ill-health (Welcome, 2011). Developing and implementing a sustainable health care financing strategy are key success factor for health sector reforms in Nigeria and in improving the health status of a majority of Nigerians.

The National Health Insurance Scheme (NHIS) was designed to provide comprehensive health care delivery at without out-of-pocket expenditure; covering employees of the federal formal sector (NHIS Operational Guidelines, 2017). The self-employed, as well as rural communities, the poor and the vulnerable groups are also provided with appropriate form of

Health Insurance. There has been an increasing awareness in the function and modus operandi of health maintenance organization in Nigeria; however, the expectations of individuals are not always met as there are various challenges encountered in relationship management between HMO enrollees, Health maintenance organization and health care providers (Ibiwoye and Adeleke, 2007). Although, businesses pursued the HMO model for its alleged cost containment benefits, some studies indicates that private HMO plans don't achieve any significant cost savings over non-HMO plans. Although out-of-pocket costs are reduced for consumers; controlling for other factors, the plans don't affect total expenditures and payments by insurers. The NHIS was initially established to cover only employees in the formal sectors (Federal, State and Local Government) and organized private sector. Provision, though has been made by the government for the scheme to also encompass the self-employed, rural communities, indigent persons, and vulnerable groups with appropriate health insurance (NHIS Operational Guidelines, 2017). Nevertheless, the NHIS is only operational in the federal government formal sector and the organized private sector have fully embraced and implemented the scheme. That is, only the federal government, few states out of the 36 state governments in Nigeria, and some organized private organizations have embraced and implemented the scheme for their employees. The local governments in Nigeria are yet to embrace and implement the scheme for their employees. This means that, a good number of Nigerians are currently not covered by the NHIS. The extent of coverage of the NHIS is such that artisans, farmers, sole proprietors of businesses, street vendors, petty traders, and the unemployed are not yet adequately covered. Another important issue as observed by Ibiwoye and Adeleke (2007), is that the expectations of the NHIS enrollees have not been met, as there are challenges still encountered in the relationship management between the health maintenance organizations (HMOs) and NHIS enrollees; and between the HMOs and health care providers (health facilities). These same HMO-designated health facilities also provide health care services to other clients who are NHIS non-enrollees. It is also perceived that these non-enrollees are willing to participate in the NHIS and make payment for health insurance as a result of the quality of health care services they get from these HMO-designated health facilities in Kaduna metropolis. It is against this backdrop that this study seeks to evaluate NHIS enrollees' satisfaction with health care services accessed in HMO-accredited health facilities, and the readiness of non-enrollees' to participate in the scheme and make payment for health insurance in Kaduna metropolis.

Literature Review and Theoretical Framework

Literature Review

National Health Insurance Scheme is a social security system that guarantees the provision of needed health services to beneficiaries on the payment of token contributions at regular intervals. Despite this indisputable fact, in Nigeria like most African countries, the provision of quality, accessible and affordable healthcare remains serious problem (WHO, 2009). This is because the health sector is perennially faced with gross shortage of personnel inadequate and outdated medical equipment, poor funding, and policies inconsistencies (WHO, 2009; WHO, 2016; Johnson and Stoskopt, 2009). Another factor that impedes on the quality of health care delivery in Nigeria is the inability of some consumers to pay for health care services (Sanusi and Awe, 2009). Health Insurance Scheme is the health social security which

guarantees people's access to good healthcare services (Physical and financial) and protect families from the financial hardship of huge medical bills (Omoruan, Bamidele, and Philips 2009).

Health Maintenance Organizations (HMOs) are limited liability companies licensed by the National Health Insurance Scheme (NHIS) to facilitate the provision of healthcare benefits to contributors under the Formal Sector Social Health Insurance Program (FSHIP) to interface between eligible contributors, including voluntary contributors and the healthcare providers. Existing arrangement makes HMOs to either be for-profit or not-for-profit private health insurance companies, or public entities (NHIS guidelines). Irrespective of the motive of any of the arrangement, delivery of sound healthcare services remains ultimate. It is therefore imperative to appraise how the HMOs have performed, and this study measured it from the enrollees' perspective.

Several scholars and researchers have conducted prior studies on enrollees' satisfaction with health insurance. Mohammed, Sambo, and Dong (2011) in their study found that majority of health insurance enrollees were satisfied with the health care services they access through the health insurance scheme. The study also revealed that enrollees with more knowledge about the scheme and those that are aware of their financial contributions were more satisfied than those with low knowledge and those that were not aware of their financial contributions. The study also found that marital status, general knowledge of health insurance, and awareness of financial contributions were the factors that significantly influenced satisfaction with the health insurance scheme. The study also revealed that other factors that slightly influenced enrollee's satisfaction were; length of employment, income level, hospital visits and length of duration of enrolment in the health insurance scheme.

The study of Daramola, Adeniran, and Akande (2018) to assess clients' satisfaction with health care services accessed under the NHIS at the National hospital Abuja, Nigeria revealed that overall average satisfaction score for clients/patients was 58.1% and this overall satisfaction was as a result of clients/patients' satisfaction scores with doctors' consultation (69.9%), laboratory services (66.5%), hospital facilities (62.2%), hospital services (60.4%), reception/registration (59.8%), waiting time (59%), and prescribed drugs (54.2%). The study also revealed that the reasons for client's/patients' dissatisfaction were; unavailability of prescribed drugs, long registration processes and long waiting.

Obembe, Abodunrin, and Jegede (2017), conducted a related study to determine NHIS enrollees' satisfaction with HMOs services and the willingness of the non-insured to participate in the health insurance scheme in Abuja Metropolis adopting a cross-sectional descriptive research design. The study utilized a sample of 400 health facilities users in Abuja metropolis selected through a systematic sampling technique. The data for the study were gathered with the use of a questionnaire, while the data were analyzed using frequency/percentage distribution analysis and descriptive statistics. Findings from the study revealed that majority of the NHIS enrollees and non-enrollees were satisfied with the services provided by the HMO-accredited health facilities. The results also revealed that

majority of the non-enrollees were willing to participate and make payment for health insurance.

Kurfi and Aliero (2017), carried out a related study to examine the extent of satisfaction of clients of NHIS and factors that influenced client's satisfaction of the scheme in Usman Danfodiyo University, Sokoto adopting a cross-sectional survey research design. A sample of 535 respondents drawn from the institution's academic faculties were using simple random sampling technique were used in the study, while a questionnaire was used in collecting data for the study. Findings from the study revealed that enrollees of NHIS had low satisfaction rate with the scheme.

Abdulqadir and Alhaji (2012), in their study to determine the satisfaction level of NHIS enrollees, found that majority of the enrollees had low level of satisfaction with the scheme. Similarly, the study of Onyedibe, Goyit, and Nnadi, (2012), revealed that NHIS enrollees had very low satisfaction with the scheme. According to them, poor registration system, poor referral system, and delay in receiving services were the factors that influenced enrollee's dissatisfaction with the scheme.

Afolabi (2018), assessed and compared client satisfaction with quality of care among NHIS enrollees in private and public primary health facilities in Ogun State, Nigeria by adopting a comparative cross-sectional research design. The study used a sample of 250 participants who were selected from public and private NHIS participating primary facilities in Ogun State using simple random sampling technique. Findings from the study revealed that majority of the clients of public and private health facilities were satisfied with the overall services received at the NHIS-accredited public health facilities.

Lawal, Maishanu, and Aliyu (2018), conducted a related study to assess the perception and satisfaction of users of the National Health Insurance Scheme (NHIS) among academic staff of Usman Danfodiyo University, Sokoto by adopting a cross-sectional descriptive survey. A total of 278 academic staff of the university were selected for the study using systematic sampling technique. Data for the study were collected using a self-administered questionnaire, while the data were analyzed using frequency/percentage distribution analysis. Findings from the study revealed that majority of the NHIS users were dissatisfied with the NHIS and would not recommend the scheme to family members and friends.

Theoretical Framework

Consumer Theory

Consumer theory assumes that if consumers are perfectly informed, they maximize their utility as a function of consuming various goods, given relative prices, their income and preferences. Changes in prices and income influence how much of different goods rational consumers will buy (Begg, Fischers, and Dornbusch, 2000). Health insurance is expected to be a normal good with a positive income elasticity of demand, implying that the poor are less likely to insure. A price increase of a substitute for insurance – such as user fees – is expected to raise the insurance demand, as is a decrease in insurance premium. However, due to

uncertainty about the unknown future health, insurance choice is not made based on utility alone but on consumers' expectation about factors such as their health status (Cameron, Trivedi, Milne, and Piggott, 1988). Thus, theories on decision-making under uncertainty are generally used to describe insurance enrolment.

Decision-Making under Uncertainty

Among the theories that analyze decision-making under uncertainty are; expected utility, state-dependent utility, endowment effect, status quo bias, regret and disappointment paradigms, and prospect theory.

Expected Utility (EU) Theory: Under the expected utility theory, insurance demand is a choice between an uncertain loss that occurs with a probability when uninsured and a certain loss like paying a premium (Manning and Marquis, 1996). EU theory assumes that people are risk averse and make choices between taking a risk that has different implications on wealth. At the time of insurance choice, consumers are uncertain whether they will be ill or not, and of the related financial consequences. Insurance reduces this uncertainty. Through insurance, they can level out their income over two different states, ill/not ill, which makes the aggregate outcome relatively certain. This certainty allows the insured to reach a higher utility in case of illness than those without insurance. Accordingly, the insurance demand reflects individuals' risk aversion and demand for certainty, implying that the more risk averse individuals are, the more insurance coverage they will buy (Begg, Fischers, and Dornbusch, 2000). This theory is however, silent about the level of consumers' income and its impact on the insurance choice.

State-dependent Utility Theory: The self-dependent utility theory suggests that consumers' utility level and tastes are influenced by their state, such as their health or socio-economic status. Accordingly, people may have different degrees of risk aversion, which could influence their insurance decision and the magnitude of their expected insurance pay-off. Most people insure when they are healthy. A healthy person might optimistically expect to remain healthy in the near future, which has implications on the insurance choice. The resulting insurance coverage may be below full loss coverage, if the anticipated insurance pay-off is below the real loss in case of illness. Hence, the anticipated need for medical care given the current state, and the magnitude of the related insurance pay-off in case of sickness will affect individuals' insurance demand (Phelps, 1973).

Manning and Marquis (1996) estimate insurance demand by adding the value of medical care to the value of risk avoided in the purchaser's utility function. At the end of the RAND study, participants were asked to select from hypothetical insurance plans with different coinsurance rates. Results suggest that enrolment in a hypothetical insurance is not affected by household income and premium levels but rather by the expected pay-off individuals will receive when sick (Manning and Marquis, 1996). The poor may expect less pay-off when sick, which could influence their insurance decision. They may anticipate purchasing single tablets of medicine from a market vendor for self-treatment, not covered by insurance. Also, the richer may not enroll in NHIS because the magnitude of the expected pay-off from NHIS is not good enough' for them. They might prefer to pay user fees or purchase private insurance coverage allowing them to use more expensive hospital care.

Prospect Theory: The prospect theory questions the assumptions made by EU theory, and states that the choice is about prospects of gains or losses, and not the level of uncertainty. Individuals assume an optimal risk level for every expected gain or loss. The point from which an individual perceives gains and losses to occur may influence the choice; and gambles are judged in terms of their deviations from this optimal risk level (Khaneman and Tversky, 1979). Applied to the insurance context, prospect theory suggests that people insure from a gain perspective and not because insurance reduces uncertainty. Given a premium level, people will first assess their individual health risk level and the eventual deviation from it (for example, my health is bad and it could get worse). They may decide not to insure because of a gain prospect: they expect to pay less for their health risk than the deviation from it. This is a risk because the deviation may be greater than expected and cause a loss. So, prospect theory says that, with respect to losses, individuals are risk preferring. Following from this, individuals will only insure if the loss will occur with certainty, and not because they are risk averse as suggested by EU theory (Khaneman and Tversky, 1979). Using RAND study data, Marquis and Holmer (1996) found that the demand for insurance appears not to be affected by premium level, and families consider losses smaller than US$200 as irrelevant. When evaluating risky prospects in their demand decision, people evaluate them as gains and losses from a reference point. They will first assess their individual health risk level and the eventual deviations from it (for example, my health is bad and it could get worse and cost about US$200, or it is about to improve) (Marquis and Holmer 1996). Prospect theory is however, silent about the association between household income and the expected deviation from health risk. Cumulative prospective theory combines state-dependent utility and prospect theory: people assign different weights to the probability that an event will occur. Then, they make choices between prospects through the weighted probabilities of losses and gains. However, they tend to overweight small probabilities, whereas high probabilities are under-weighted (Kahneman and Tversky, 1992). Applied to the insurance demand, prospect theory suggests that people insure because they overweight the relatively small probability of the event of illness. However, poor individuals, who do not have the luxury to let health compromise their daily work, might underweight the illness probability and remain uninsured (Case and Deaton, 2002).

The Status Quo Bias: The status quo bias is similar to the endowment effect. Studies suggest that consumers prefer the status quo they are familiar with instead of undergoing an unknown, innovative medical procedure (Salkfeld, Ryan, and Short, 2000). Apparently, people consider departures from the status quo as more detrimental than beneficial. In addition, individuals tend to stay with the status quo if there is an increasing number of alternatives to choose from, and if choices become more complicated ((Khaneman, Knetsch, and Thaler, 1991). This 'veil of experience' appears to determine choices, especially when lacking full information on the alternatives. Marquis and Holmer (1996) found that when presented with hypothetical offers to purchase additional insurance coverage, RAND study participants showed inertia in plan choice, which may be interpreted by the status quo effector veil of experience. It highlights the importance of information when offering insurance to poor and illiterate groups; particularly, if the concept of insurance is new. Regret and disappointment theories are based on the assumption that people have a loss aversion and conservative preferences. Individuals try to

avoid regret and disappointment and do not just consider the eventual outcome, as suggested by EU theory. They factor in their feelings of regret, in case the decision would have been wrong, and of disappointment, if the outcome does not correspond to what they have expected (Bell, 1986). Hence, individuals may prefer to remain uninsured because they might regret their decision, or be disappointed if they do not benefit from an insurance payout; or they insure to avoid feelings of regret from falling ill while uninsured. Regret and disappointment theory may be combined with state-dependent utility theory: an individual in a less fragile health state may factor in a 'smaller amount of regret' when deciding whether to insure. These theories are silent about eventual differences in the amount of regret and disappointment between wealthier and poor individuals. Despite the criticism of EU theory, none of the other decision-making concepts has provided superior results based on empirical findings on individuals' real market decisions. Based on RAND study data, Manning and Marquis (1996) conducted a robustness check between expected utility and prospect theory, and found that the two theories do not affect results significantly. Even if risk aversion is not the dominant motivation to insure, the influence of other factors in the choice process will not alter results (Manning and Marquis 1996).

Methodology

Study Area and Study Design

This study with the main objective of evaluating NHIS enrollees' satisfaction with health care services provided by HMO-accredited health facilities, and non-enrollees' willingness to participate in the NHIS and pay for health insurance in Kaduna metropolis was conducted in Kaduna metropolis of Kaduna state, Northwest geo-political region of Nigeria. The study was accomplished by adopting a cross-sectional survey research design.

Population Size, Sample Size and Sampling Technique

The target population for the study comprised of all adult men and women (18 years and above) (NHIS enrollees and non-enrollees) who were registered clients of 185 HMO-accredited health facilities in Kaduna state. However, 10 health facilities were selected from the HMO-accredited health facilities in Kaduna metropolis using simple random sampling technique. The total number of active registered clients in the 10 randomly selected health facilities as at January 31st, 2020 was 60,200. However, a sample of 384 clients (NHIS enrollees and non-enrollees) was selected as respondents for the study using stratified random sampling technique. Prior to the actual selection of respondents in the study, a minimum ideal sample size was determined using the Cochran's sample size determination formula (Cochran, 1963). The Cochran formula is given as:

$$n = \frac{z^2pq}{d^2}$$

Where:
n = Minimum ideal sample size
z = Standard normal distribution critical value for 95% confidence level
p = Estimated proportion of an attribute that is present in the population (p = 0.50)

q = 1 – p (q = 1 – 0.50 = 0.50)
d = Error margin or desired level of precision (d = 1 – 0.95 = 0.05)

Therefore, implies that the minimum ideal sample size (n) for the study is:

$$n = \frac{1.96^2 (0.50)(0.50)}{0.05^2}$$

$$n = \frac{3.842\ X\ 0.25}{0.0025}$$

n = 384.2 ≈ 384.

This implies that a minimum sample size of 384 is required to implement this study in order to achieve 95% precision and confidence in the study.

Inclusion and Exclusion Criteria
Only adult clients (NHIS enrollees and non-enrollees) aged 18 to 70 years were included in the study. The clients must have accessed health care services in the health facilities not less than three occasions. Clients who were less than 18 years and those above 70 years of age were excluded from the study. Clients who had not accessed health care services in the health facility up to and above three occasions were also excluded from the study.

Data Collection Instrument
A questionnaire was the main instrument used in collecting primary quantitative data from respondents in the study. The questionnaire was a pre-tested, self-administered structured questionnaire adopted from prior studies on NHIS enrollee's satisfaction with slight modifications. The questionnaire was divided into three (3) sections, A, B, and C. Section A contained mostly close-ended questions that attempted to know respondents' demographic characteristics such as gender, age, marital-status, highest level of education, occupation, and monthly income. Section B contained close-ended questions that attempted to know respondents' views and opinions on the accessibility, responsiveness, and quality of healthcare services provided by HMO-accredited health facilities in Kaduna metropolis. The answer options were framed on a 5-point Likert scale: 5-Strongly agree, 4-Agree, 3-Niether agree nor disagree, 2-Disagree, 1-Strongly disagree. Similarly, section C contained questions that attempted to know respondents' satisfaction levels with accessibility, responsiveness, and quality of healthcare services provided by HMO-accredited health facilities. The answer options were also framed on a 5-point Likert scale: 5-Very satisfied, 4-Satisfied, 3-Niether satisfied nor dissatisfied, 2-Dissatisfied, 1-Very dissatisfied. Section C also contained question that attempted to know the willingness of clients who were non-enrollees of the NHIS scheme to enroll in the NHIS and make monthly payment for health insurance. The answer options here were also framed on a 5- point Likert scale: 5-Strongly willing, 4-Willing, 3-Undecided, 2-Unwilling, 1-Strongly unwilling.

Pilot Study
Prior to the actual administration of the research questionnaire to respondents, the researcher carried out a 'pilot study' as a form of testing the questionnaire and gather trial data. The

questionnaire was tested using a sample of 20 hospital clients who volunteered to be respondents in the pilot study. The respondents were each administered with a copy of the questionnaire to fill and returned same to the researcher. The completed questionnaires were then checked if all the questions were answered. The trial data were then extracted, coded and analyzed using relevant statistical tools. Improvements were made on the questionnaire where necessary and appropriate. The results of the trial data analysis were however, not included in the study, they were only used to determine the reliability and consistency of the questionnaire and questionnaire items.

Methods of Data Analysis

The quantitative data gathered in the study were analysed with the following statistical tools; frequency/percentage distribution analysis, Chi-square goodness of fit test, and independent samples t-test. The analysis was cone with the aid of the Statistical Package for the Social Sciences (SPSS) (version 23.0).

Data Analysis and Results

A total of 384 copies of the research questionnaire were administered to the respondents and 352 were collected back and valid. This implies that a response rate of 91.7% was achieved in the study. This response rate was deemed to be very good for the researcher to go ahead with implementing the study. Hence, the basis for analysis in the study was 352 and not 384. Decisions on statistical significance on all the statistical tests carried out in the study were taken using a level of significance of 5% (that is, 0.05).

Distribution of Respondents' Socio-Demographic Characteristics:

Table 1: Socio-Demographic Characteristics of Respondents

		Frequency	Percent
NHIS Enrolment Status	Enrollee	156	44.3
	Non-Enrollee	196	55.7
	Total	**352**	**100.0**
Gender	Male	194	55.1
	Female	158	44.9
	Total	**352**	**100.0**
Age Category	Less than 18 years	30	8.5
	18-22 years	40	11.4
	23-27 years	68	19.3
	28-32 years	93	26.4
	Above 32 years	121	34.4
	Total	**352**	**100.0**
Marital Status	Single	140	39.8
	Married	171	48.6
	Separated	12	3.4
	Divorced	13	3.7
	Widowed	16	4.5
	Total	**352**	**100.0**
Educational Attainment	No formal Education	51	14.5
	Primary	81	23.0
	Secondary	107	30.4
	Tertiary	83	23.6
	Postgraduate	30	8.5
	Total	**352**	**100.0**
Occupation	Federal Civil/Public Servant	82	23.3
	State Civil/Public Servant	38	10.8
	Private Sector Employee	86	24.4
	Local Government Employee	44	12.5
	Self Employed	59	16.8
	Retired Employee	43	12.2
	Total	**352**	**100.0**
Monthly Income	Less than ₦50,000.00	80	22.7
	₦50,000.00 - ₦99,999.99	68	19.3
	₦100,000.00 - ₦149,999.99	104	29.5
	₦150,000.00 - ₦199,999.99	32	9.1
	₦200,000.00 - ₦249,999.99	21	6.0
	₦250,999.99 - ₦299,999.99	19	5.4
	₦300,000.00 and above	28	8.0
	Total	**352**	**100.0**

Source: Researcher's Field Survey, 2020.

Table 1 shows the distribution of socio-demographic characteristics of respondents in the study. The first panel of the Table indicates that majority of the respondents were non-NHIS

enrollees (196 (55.7%)). The second panel of the Table indicates that majority of the respondents were males (194 (55.1%)). The third panel indicates that majority of the respondents were in the age category 'above 32 years' (121 (34.4%)). The fourth panel of the Table indicates that majority of the respondents were married (171 (48.6%)). The fifth panel of the Table indicates that majority of the respondents were secondary school certificate holders (107 (30.4%)). The sixth panel of the Table indicates that majority of the respondents were private sector employees (86 (24.4%)). The seventh panel of the Table indicates that majority of the respondents had monthly income of N100,000.00 – N149,999.99 (104 (29.5%)).

Test of Hypotheses

The following null hypotheses were tested for statistical significance at 5% level of significance in the study:

$H_{01:}$ Enrollees of NHIS are not satisfied with health care services provided by HMO-accredited health facilities in Kaduna metropolis.

$H_{02:}$ Non-enrollees of NHIS are not satisfied with health care services provided by HMO-accredited health facilities in Kaduna metropolis.

$H_{03:}$ There is no significant difference in the satisfaction levels of NHIS enrollees and NHIS non-enrollees with the health care services provided by HMO-accredited health facilities in Kaduna metropolis.

$H_{04:}$ Non-enrollees of the NHIS scheme in Kaduna metropolis are not willing to participate in the NHIS and make payment for health insurance.

The first, second and fourth null hypotheses were tested using the Chi-square goodness of fit test, while the third null hypothesis was tested with the independent samples t-test.

1.) $H_{01:}$ Enrollees of NHIS are not satisfied with health care services provided by HMO-accredited health facilities in Kaduna metropolis.

Table 2: Chi-Square Test Statistics

	Overall Satisfaction Level of NHIS Enrollees
Chi-Square	85.859[a]
Df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 31.2.

Source: Researcher's SPSS Chi-Square Goodness of Fit Test Output, 2020.

Table 2 is the Chi-Square test statistics Table for the Chi-square goodness of fit test carried out to determine if NHIS enrollees are satisfied with health care services provided by HMO-accredited health facilities in Kaduna metropolis. The test returned a Chi-Square value of 85.859 with 4 degrees of freedom, and P-value of 0.000. Since the associated P-value is less than the level of significance value (that is, since $0.000 < 0.05$), we reject the null hypothesis (H_{01}) and conclude that NHIS enrollees are satisfied with the health care services provided by

HMO-accredited health facilities in Kaduna metropolis at 5% level of significance (Chi-Square $_{(0.05)(4)} = 85.859, P < 0.001$).

2.) $H_{02:}$ Non-enrollees of NHIS are not satisfied with health care services provided by HMO-accredited health facilities in Kaduna metropolis.

Table 3: Chi-Square Test Statistics

	Overall Satisfaction Level of Non-Enrollees of NHIS
Chi-Square	60.888[a]
Df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 39.2.

Source: Researcher's SPSS Chi-Square Goodness of Fit Test Output, 2020.

Table 3 is the Chi-Square test statistics Table for the Chi-square goodness of fit test carried out to determine if non-enrollees of NHIS are satisfied with health care services provided by HMO-accredited health facilities in Kaduna metropolis. The test returned a Chi-Square value of 60.888 with 4 degrees of freedom, and P-value of 0.000. Since the associated P-value is less than the level of significance value (that is, since 0.000 < 0.05), we reject the null hypothesis (H_{02}) and conclude that non-enrollees of NHIS are satisfied with the health care services provided by HMO-accredited health facilities in Kaduna metropolis at 5% level of significance (Chi-Square$_{(0.05)(4)} = 60.888, P < 0.001$).

3.) $H_{04:}$ Non-enrollees of the NHIS scheme in Kaduna metropolis are not willing to participate in the NHIS and make payment for health insurance.

Table 4: Chi-Square Test Statistics

	As a non-enrollee of the NHIS, I am willing to participate in the scheme and may payment for health insurance
Chi-Square	180.837[a]
Df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 39.0.

Source: Researcher's SPSS Chi-Square Goodness of Fit Test Output, 2020.

Table 4 is the Chi-Square test statistics Table for the Chi-square goodness of fit test carried out to determine if non-enrollees of NHIS in Kaduna metropolis are willing to participate in the NHIS and make payment for health insurance. The test returned a Chi-Square value of 180.837 with 4 degrees of freedom, and P-value of 0.000. Since the associated P-value is less than the level of significance value (that is, since 0.000 < 0.05), we reject the null hypothesis

(H_{04}) and conclude that non-enrollees of NHIS in Kaduna metropolis are willing to participate in the NHIS and make payment for health insurance at 5% level of significance ($\text{Chi-Square}_{(0.05)(4)} = 180.837, P < 0.001$).

4.) $H_{03:}$ There is no significant difference in the satisfaction levels of NHIS enrollees and NHIS non-enrollees with the health care services provided by HMO-accredited health facilities in Kaduna metropolis.

Table 5: Descriptive Statistics for t-Test

	NHIS Enrolment Status	N	Mean	Std. Deviation	Std. Error Mean
Overall Satisfaction Level	Enrollee	156	3.12	1.065	.085
	Non-Enrollee	196	3.58	1.198	.086

Source: Researcher's SPSS Independent Samples T-Test Output, 2020.

Table 6: Independent Samples T – Test Statistics

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	T	DF	Sig. (2-tailed)
Overall Satisfaction Level	Equal variances assumed	3.506	.062	-3.809	350	.000
	Equal Variances not assumed			-3.860	345.655	.000

Source: Researcher's SPSS Independent Samples T-Test Output, 2020.

Table 6 is the Independent Samples t-test statistics Table. A Levene's test for equality of variances conducted prior to the t-test revealed that there is no significant difference in the variances of the two groups at 5% ($F = 3.506, P = 0.062$); hence, the independent samples t-test was carried out with the assumption that the two groups had equal variances. The results of the t-test returned a t-statistic value of -3.809 with 350 degrees of freedom, and P-value of 0.000. Since the associated P-value for the test is less than the level of significance value (that is, since $0.000 < 0.05$), we reject the third null hypothesis (H_{03}) and conclude that there is a statistical significant difference in the satisfaction levels of NHIS enrollees and NHIS non-enrollees with health care services provided by HMO-accredited health facilities in Kaduna metropolis at 5% level of significance ($t_{(0.05)(350)} = -3.089, P < 0.001$). The independent samples t-test descriptive statistics (Table 5) indicates that the mean satisfaction level for enrollees was 3.12, while that of non-enrollees was 3.58. This implies that non-enrollees had a higher mean

satisfaction level than enrollees which the t-test revealed is statistically significant at 5%. We therefore conclude that NHIS non-enrollees had a higher satisfaction level than NHIS enrollees with the health care services provided by HMO-accredited health facilities in Kaduna metropolis.

Discussion of Findings

It was found from the study that that enrollees of NHIS in Kaduna metropolis were satisfied with the health care services they accessed in HMO-accredited health facilities in Kaduna metropolis. The overall satisfaction level of enrollees of NHIS in Kaduna metropolis was as a result of their satisfaction with accessibility of health care services, responsiveness, and quality of health care services in the health facilities. This finding is consistent with the findings of Mohammed et al (2011) and Daramola et al (2018), but in disharmony with the findings of Abdulqadir and Alhaji (2012), Lawal et al (2018) and Kurfi and Aliero (2017).

Findings from the study also indicated that non-enrollees of NHIS in Kaduna metropolis were satisfied with the health care services they accessed in HMO-accredited health facilities in Kaduna metropolis. The overall satisfaction level of non-enrollees of NHIS who were also clients of the HMO-accredited health facilities in Kaduna metropolis was as a result of their satisfaction with accessibility of health care services, responsiveness, and quality of health care services in the health facilities. This finding is in harmony with the findings of Obembe et al (2018) and Afolabi (2018).

Findings from the study also showed that non-enrollees of NHIS in Kaduna metropolis were willing to participate in the NHIS and make payment for health insurance. The willingness of non-enrollees of NHIS to participate in the NHIS and make payment for health insurance could be as a result of their satisfaction with accessibility of health care services, responsiveness, and quality of health care services in the HMO-accredited health facilities in Kaduna metropolis. This finding supports the findings of Obembe et al (2017).

Findings from the study also showed that there is a significant difference in the satisfaction level of NHIS enrollees and that of non-enrollees of NHIS with health care services provided by HMO-accredited health facilities in Kaduna metropolis, with non-enrollees of NHIS having a higher satisfaction level than enrollees of NHIS. This higher satisfaction level of non-enrollees of the NHIS in Kaduna metropolis could be as a result of the fact that majority of the clients of the HMO-accredited health facilities in Kaduna metropolis are non-enrollees of NHIS, and since they access the same or similar health care services in the health facilities, they may more satisfied with the services being that they make payment immediately for health care services which they feel is relatively flexible, cheap and affordable. This finding is divergent with the findings of Obembe et al (2017) whose findings revealed that there was no significant difference in the satisfaction levels of enrollees and non-enrollees.

Limitations of the Study

The study was conducted amongst NHIS patients in only Kaduna metropolis of Kaduna State, which limits the generalization of the findings to other parts of the state. Further studies

to evaluate NHIS enrollees' satisfaction with health care services provided by HMO-accredited health facilities, and non-enrollees' willingness to participate in the NHIS and pay for health insurance in other parts of Kaduna State would help address this limitation.

Conclusion

This study was carried out with the main objective of evaluating NHIS enrollees' satisfaction with health care services accessed in HMO-accredited health facilities, and the readiness of non-enrollees' to participate in the scheme and make payment for health insurance in Kaduna metropolis. Based on the results of the data analysis and findings, the study concludes that NHIS enrollees are satisfied with the health care services accessed in the HMO-accredited health facilities, and non-NHIS enrollees are willing to participate in the scheme and make payments for health insurance in Kaduna Metropolis.

Recommendations

1. HMOs should set up monitoring agencies to monitor the activities and services of HMO-accredited health facilities in order to improve the services of the health facilities and ultimately, enhance the satisfaction level of the NHIS enrollees.
2. This study recommended that the Federal Government of Nigeria should amend the NHIS Act to have a wider coverage than it presently has, so that self-employed and unemployed persons in the country could be enrolled in the scheme and have access to good and quality health care services at minimal cost based on annual or monthly subsidized payments for health insurance.
3. Bottlenecks and impasses encountered in the registration process of NHIS should be removed so as to make it less difficult and less cumbersome for interested civil servants, private sector employees, self-employed and individuals to enroll and register in the scheme.

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