



(RESEARCH ARTICLE)



Consumer satisfaction with national health insurance scheme (NHIS) under primary healthcare facilities in Bauchi state

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Abstract

The research examined consumer satisfaction with National Health Insurance Scheme (NHIS) under primary healthcare facilities in Bauchi State, with focus on the formal sector. The objectives were to investigate the level of consumer satisfaction with NHIS health services under primary healthcare facilities in Bauchi state. The variables were arrived at after a literature review exercise. The study adopted a mix-mode approach (quantitative and qualitative methods) of data collection via survey questionnaire and face to face interview, from relevant establishments and individuals. Justice theory was used as the theoretical framework for the research. Data was analyzed using statistical packages for social sciences (SPSS) and thematic analysis for the qualitative aspect. A sample of 382 respondents with 373 as the valid returns from the three senatorial zones in Bauchi State. The analysis was performed on the data collected which covers the formal sector within the primary health care centers in Bauchi State. Part of the findings indicate Equity and Quality service have positive and significant impact on consumer satisfactions with health services. This means there is still need to improve on fair access as well as qualitative health care services under NHIS primary health facilities. The implication of this finding is that consumers are given limited access and low-quality care or drugs. These findings will enable policy makers better understand the satisfaction domain with the NHIS policy and ways of improving the policy. Three (3) health care facilities from the three (3) senatorial zones were used for generalization.

Keywords: Consumer Satisfaction; Consumer Expectations; Equity in Access; Out of Pocket Expenses; Quality of Service

1. Introduction

National or Social Health Insurance (NHI/SHI) is one method for raising and bringing together funds to fund healthcare services for the population of a country, usually in relation to what is considered medically essential. In the later part of the 1880s, Germany's Social Health Insurance ideal was advanced being part of the efforts at building and unifying the nation and also to manage health-related challenges due to industrialization. Example, alcoholism, sexually transmitted diseases and tuberculosis etc. The model was dependent upon household premiums and payroll taxes. The employers and their employees together contribute to these ill health funds and is essential in providing a comprehensive benefit package. In the beginning of the early twentieth century, Beveridge National Health Service ideal in United Kingdom (UK) depended upon common taxes, a national risk pool, and publicly delivered services (Lagomarsino, Garabrant, Adyas, Muga, & Otoo, (2012). These two basic models/ideals have continued today and even adopted by many other systems that endeavor to deliver healthcare coverage for their societies.

The numerous kinds of these models/ideals have advanced into mature SHI systems. Enrollees and in some situations their employers are also instructed by the national legislation to pay contributions, through maybe taxation (e.g., Australia, Canada, United Kingdom, Thailand) or even separate levies. Example, Singapore citizens and residents

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engaged in employment are mandated to contribute to a Provident Fund. Also, with employer contributions a share of an individual's fund is deposited to a Medisave account that could be drawn for healthcare expenditures. These numerous schemes around the world would cover a package of services accessible to the insured and their dependents (Anita, & Yong, 2015).

In countries of the Sub-Saharan Africa healthcare has progressed along a range of diverse lines which has resultant systems today which shows a great deal of division and difficulty McIntyre (2008). Recently there has been a tendency for several developing nations to lean towards new or expanded role for several kinds of social health insurance (SHI) Wagstaff, (2010), in the search for universal healthcare as promoted by World Health Organisation (WHO) (WHO, 2010). The primary goal is to decrease the huge dependence on the out-of-pocket (OOP) payments which are in the form of user charges and even co-payments. Which are degenerating as they unduly affect the poorest in society and as a result challenge the basic tenets of equity in the healthcare systems (Ezeoke, Onwujekwe, & Uzochukwu, 2012).

The history of National Health Insurance Scheme (NHIS) in Nigeria goes back to the post-independence period of 1962. The government originally funded universal and free health care in primarily public facilities with proceeds from oil exports and general taxes. Nevertheless, the worldwide fall of oil prices during the 80s meant the Government could not afford to deliver free health care any longer. Numerous cost retrieval instruments founded on OOP charges were presented in conjunction with a growth in the privatization of healthcare (McIntyre, 2008).

The "National Health Insurance Scheme is a body set up by Decree 35, of 1999 (now Act 35) operating as Public Private Partnership" and focused at ensuring available, inexpensive and qualitative healthcare for all Nigerians. NHIS of Nigeria began full operations in 2005. Its main purpose is to ensure 'universal coverage and access to adequate and affordable healthcare in order to improve the health status of Nigerians, especially for those participating in the various programs/products of the Scheme' (NHIS, 2012; p10).

1.1. Statement of problem

There are conflicting results of previous works on consumer satisfaction with national health insurance scheme in Nigeria. Research findings from the Southern and Northern parts of the country are mostly divergent from one another, and this has created a problem of generalization. There is need to determine the access, and quality of services rendered as compared to those paying cash. To also determine if consumer expectations are met under the scheme, and to determine if out of pocket expenses have significantly reduced as a result of the NHIS for registered consumers in Bauchi state. It is also a problem not having adequate literature on the research topic covering the North-East and specifically on Bauchi state which means there is a gap.

From the above statement of the problem, it is clear that there is the problem of not knowing the status of consumer satisfaction with national health insurance scheme under primary health care facilities in Bauchi state. It is against this backdrop that this research appraises the satisfaction of national health insurance scheme from the stand point of the registered consumers and desk officers of the health facilities, using three (3) primary healthcare hospitals; one (1) from each of the three (3) senatorial zones. The health facilities are: Bauchi State Specialist Hospital (Bauchi Central), General Hospital Dass (Bauchi South) and Federal Medical Center, Azare (Bauchi North). In order to give direction to policy makers on how to improve health insurance as a policy and in practice.

1.2. Research question

- Are consumers of NHIS getting equitable access to health services from primary healthcare facilities in Bauchi state?
- Are consumers of NHIS accessing quality health services under primary healthcare facilities in Bauchi state?
- What are the expectations of NHI consumers on healthcare delivery under primary healthcare facilities in Bauchi state?
- What are the out of pocket (OOP) medical expenses for NHI consumers under primary healthcare facilities in Bauchi state?

1.3. Objectives of the study

The broad objective of the study is to examine consumer satisfaction with National Health Insurance Scheme (NHIS) under primary healthcare facilities in Bauchi State, with focus on the formal sector. The specific objectives are to:

- Examine the equitable access to healthcare services for NHIS consumers under primary healthcare facilities in Bauchi state.
- Examine the quality of health services for NHIS consumers under primary healthcare facilities in Bauchi state.
- Determine the expectations of NHIS consumers on the NHIS healthcare delivery under primary healthcare facilities in Bauchi state.
- Determine the implications of NHIS on Out of Pocket (OOP) medical expenses of consumers under primary healthcare facilities in Bauchi state.

1.4. Research hypothesis

- Equity has significant influence on consumer satisfaction with health NHIS under primary healthcare facilities in Bauchi state.
- Quality of service(s) has significant influence on consumer satisfaction with NHIS under primary healthcare facilities in Bauchi state.
- Consumer expectation(s) has significant influence on consumer satisfaction with NHIS under primary healthcare facilities in Bauchi state.
- Out of Pocket expenses have significant influence on consumer satisfaction with NHIS under primary healthcare facilities in Bauchi state.

2. Methodology

The research is designed based on the mix-mode approach; utilizing questionnaire and interview. The survey design adopted was opted for because the design uncovers, interprets and integrates data, as well as points to their implication in interrelationships (Cohen & Manion, 1986). It allows for random sampling and the use of questionnaires. It is also used to study people's attitude, feelings and opinions (Babbie, 1986). The survey approach using questionnaire is believed to be the most appropriate technique in collecting the primary data as noted by Olakunle (2004), Sekaran (2000) and Yang (2010).

Thus, the quantitative aspect of the research design is based on a structured questionnaire. A Linear regression attempts to model the relationship between two variables by fitting a linear equation to observed data. One variable is considered to be an explanatory variable, and the other is considered to be a dependent variable. The analysis will be carried out via statistical packages for social sciences (SPSS).

The interview aspect of the research would be a face-to-face interview of predetermined respondents (NHIS Desk Officers). "Despite the rise in popularity of online and mobile surveys, face-to-face (in-person) interviews still remain a popular data collection method. A face-to-face interview method provides advantages over other data collection methods" DeFranzo (2014).

For the interview the thematic analysis will be adopted which is method for analyzing qualitative data that entails searching across a data set to identify, analyze, and report repeated patterns (Braun and Clarke, 2006). The thematic analysis is an appropriate and powerful method to use when seeking to understand a set of experiences, thoughts, or behaviours across a data set (Braun and Clarke, 2012). Again, the steps taken under thematic analysis echoes other qualitative methods such as grounded theory, ethnography, and others (Nvivo) that also rely on coding and searching data sets for themes as part of their processes.

The study population consists of all registered NHIS consumers in Bauchi state, which is a total of 66,405 persons as at August, 2019. Sample size from the population is 382 persons based on the Krejcie and Morgan, (1970) formula for determining sample size. Simple random sampling will be adopted as the sampling technique. Why? Because a simple random sample is a subset of a statistical population in which each member of the subset has an equal probability of being chosen.

The method of data collection will be through Likert 5 scale (1 strongly agree – 5 strongly disagree) administered structured (close ended) questionnaire for the respondents. This will enable the collection of primary data for an effective quantitative analysis. According to Leung (2011), Likert Scale is very widely held, and measures among other things; item-item correlations, item-total correlations, and others.

Interview will be used for the qualitative aspect of the data collection. Semi-structured in-depth interview are commonly used in qualitative research and are the most frequent qualitative data source in health services research. This method

typically consists of an interview between researcher and participant, guided by a flexible interview protocol and supplemented by follow-up questions, probes and comments when required. The method allows the researcher to collect open-ended data, to explore participant thoughts, feelings and beliefs about a particular topic and to delve deeply into personal and sometimes sensitive issues (DeJonckee, & Vaughn, 2018).

3. Empirical review

In a cross-sectional survey research carried out at Ahmadu Bello University Zaria using the university staff registered with the NHIS, (Mohammed, Sambo & Dong, 2011) determined "a high satisfaction rate with the health insurance scheme was observed (42.1%)." However, the findings were based mainly on the consumers/enrollee's general knowledge of NHIS, awareness on the contributions deducted from consumers and how these factors affect consumer satisfaction.

Furthermore, the awareness and or general knowledge of NHIS research would have been better appreciated at pre-implementation stages of the policy. Variables for examining practical experiences of consumers in the course of implementation of the policy should have been the priority. Because generally speaking, registered consumers with or without much general knowledge of NHIS operations will still be allowed access to health services when they approach their chosen healthcare provider.

To evaluate consumer satisfaction with services under the National Health Insurance Scheme at a tertiary health facility in North central, Nigeria. A cross-sectional study with a sample size of 421 NHIS enrollees between ages 18 to 60 years was undertaken from December 2015 to January 2016 at Federal Medical-Centre, Keffi, Nasarawa-State, Nigeria by Daramola, Maduka, Adeniran, and Akande, (2017). Consumers were carefully chosen through Systematic random sampling. Information was collected using pretested, anonymous, self-administered, structured questionnaires, with each satisfaction area scored in a five-point Likert scale ordinal response. The dimensions of health services evaluated were based on the typical complaints received from NHIS enrollees such as; hospital accessibility, reception and patient registration process, waiting time, doctors' consultations, availability of prescribed drugs, hospital staff attitudes and hospital facilities.

The overall average satisfaction score was 63.1%. The respondents expressed satisfaction with various aspects of services; reception/registration (65.3%), waiting time (57.4%), doctors' consultation (70.5%), prescribed drugs (55.3%), laboratory services (71.6%), condition of hospital facilities (60.3%) and staff attitude (61.0%). This study showed that the overall patients' satisfaction with services accessed was good.

However, a study of one healthcare facility is grossly inadequate as a basis for generalization for Nasarawa state (or any other state). To have a true reflection of the feelings of consumers, the researchers should have at least covered one facility/hospital per senatorial zones of the state. The study also lacks focus as there was no coverage period for analysis.

In their article Oparah, P. C., Amah, A. U., Ifeanyichukwu, C. D., Aghara, V., & Ndubisi, E. (2018) which relates service quality to the expectations of consumers versus the perceptions of Healthcare Providers in the delivery of healthcare services of National Health Insurance Scheme (NHIS). Using a questionnaire based upon a 22-question modified version of SERVQUAL was designed to obtain information about expected versus perceived levels of service quality from consumers. A second 22-question instrument seeking healthcare providers' perceptions of expectations of the consumers was also devised. The data collected were then contrasted and concludes that consumers perceived inferior quality of service from Healthcare Providers, who are the gate keepers of NHIS.

The work of Oparah, P. C., Amah, A. U., Ifeanyichukwu, C. D., Aghara, V., & Ndubisi, E. (2018) shows the link between consumer expectations, and quality of service towards attaining satisfaction or otherwise by consumers. However, being a marketing student, the research dwelled more on marketing lapses of the policy between HMOs and HCPs (marketing and supply of drugs etc). The study was also limited to the "Expectations versus Perception of National Health Insurance Scheme Enrollees in Federal Universities in South East, Nigeria."

Kurfi and Aliero (2017) in their "A Study on Clients' Satisfaction on the National Health Insurance Scheme among Staff of Usmanu Danfodiyo University Sokoto", the key objective of their work was to determine the satisfaction or otherwise of NHIS clients in Usmanu Danfodio university. After analyzing the generated data in the cause of this study, the findings revealed significant percentage of NHIS clients in Usmanu Danfodio University were not satisfied with the scheme.

A Chi-square was used to test the null hypothesis which states the clients of NHIS in Usmanu Danfodio University are not satisfied with the scheme. The null hypothesis was accepted after testing the result. The chi-Square stood at (1.499), with 1 degree of freedom and an Asymp significance value of (0.221).

This finding conforms to the findings of Mohammed et'al (2011), of a closely related study in Ahmadu Bello University Zaria which revealed low satisfaction of NHIS clients. It is also in conformity with the findings of AbdulQadir (2012), on same problem in Niger state which equally arrived at very low clients' satisfaction. Moreover, a study in Plateau state by Onyedibe et al (2012) equally reported clients' dissatisfaction with NHIS.

However, the result contrasts with the studies of clients' satisfaction in Enugu a city in South Eastern Nigeria, Akande, Salaudeen, Babatunde, Durowade, Agbana, & Olomofe, (2012) of a study in Kwara State as well as a study by Jadoo, Sharifa, Zafar, & Ammar, (2012) on the problem in Turkey. All the three studies held that clients are relatively satisfied with National Health Insurance Scheme. Sequel to the above, one important point that we need to take into consideration is that all those that said clients are not satisfied were studies conducted in Northern parts of Nigeria while most of those that presented relative satisfaction were all from southern part of the country or outside Nigeria. It is also noteworthy that none of the studies was conducted in the North-East of Nigeria not even Bauchi as a state.

In another study by Daramola, Adeniran, and Akande, (2018), they assessed patient satisfaction with services accessed under the National Health Insurance Scheme at a tertiary health facility in FCT Abuja, Nigeria. A cross-sectional study was conducted among NHIS patients attending the General Outpatient Department at the National Hospital FCT Abuja, Nigeria between April and September 2017. Data was collected from 388 patients selected by systematic random sampling; using pretested, anonymous, self-administered, structured questionnaires, with each satisfaction area scored on a five-point Likert scale ordinal response.

Evaluation was done from the typical complaints received from NHIS enrollees such as: hospital reception and patient registration process, waiting time, doctors' consultations, laboratory services, availability of prescribed drugs and hospital facilities. Data analysis was done using IBM SPSS Statistics 20.0. The overall average satisfaction score was 58.1%. The satisfaction score with various aspects of services were: 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 patient's overall satisfaction was good. However, unavailability of prescribed drugs, long registration processes and waiting time were found to be the major causes of dissatisfaction. Again, as with their study at Keffi in 2017, the study limitation remains primarily of restricting the study to a single facility (National Hospital FCT, Abuja) which will affect generalization of findings.

Okoro, Nmeka, and Erah (2017), carried out a study to investigate the drug use practices and overall prescribing pattern in the NHIS at a Tertiary Hospital in Nigeria. Retrospectively, randomly sampled 1200 out-patient's NHIS prescriptions were evaluated using WHO core drug use indicators. Prospectively, a conveniently sampled 120 patients each at General Out-Patient Department (GOPD) clinic, NHIS, and GOPD dispensing pharmacy outlets were observed during consultations and interviewed before leaving pharmacy to assess the patient care indicators. Data were analyzed using descriptive statistics and independent samples test.

The average number of drugs per prescription encounters with an antibiotic, and drug prescribed by generic name and from NHIS essential drug list were 4.2 ± 1.8 , 31.6%, 52.8% and 66.1% respectively. In NHIS and GOPD dispensing pharmacy outlets, the pharmacists' average prescriptions assessment time were 9.24 seconds and 64.03 seconds with significant difference ($P < 0.05$), whereas the average medication counselling time were 15.6 seconds and 34.7 seconds respectively with significant difference also ($P < 0.05$). Dispensed drugs that were properly labeled were higher in NHIS than in GOPD (62.0% vs 20.4%). Patients correct drug dosage knowledge was also higher in NHIS than in GOPD (37.5% vs 23.3%).

Poor drug use practices including poly-pharmacy, overuse of antibiotics, lack of adherence to generic prescribing, poor conformity to NHIS essential drug policy, inadequate prescription assessment, inadequate patients' medication counselling, incomplete labelling of drugs, and inadequate patients' knowledge of correct drug dosage were apparent.

Antihypertensive drug class was the most prescribed drug class. The findings of this study have provided first time evidence of irrational drug use in NHIS in the South East Nigeria.

On the positive side the research was able to determine that an “irrational drug use in NHIS” exists in that tertiary health facility. However, the findings of one facility cannot be the basis for categorizing the South-East of Nigeria as having the same problem or challenge. The study also failed to determine in clear terms if OOP expenses of consumers in that facility was significantly reduced or not.

Adewole, and Osungbade (2016), undertook a study of an assessment of the three dimensions of universal health coverage in the South West geo-political zone of Nigeria as being essential to determine the gaps in these areas which will be of assistance for policy makers in efforts to expand the scheme. Secondary data on health indices such as life expectancy at birth, infant and under – 5 mortality rates, maternal mortality ratio and infectious diseases prevalence, were accessed from the World Bank website. The premium paid per enrollee was obtained from the Strategic Review of Nigeria’s National Health Insurance Scheme Population figures was obtained from the Nigerian population census from the National Population Commission website, while data on the number of enrollees, accredited facilities and the distribution of these by State in the South West geo-political zone was obtained from the NHIS South West Zonal Office in Ibadan, Oyo State Nigeria.

The available data were manually analyzed with the aid of the MicroSoft – Excel. Appropriate tables to align with the study objectives were generated. Poor health indices exemplified by low life expectancy at 54 years, high infant and under 5 mortality rates of 88 and 143 per 1000 live births respectively. Maternal mortality ratio was 630 per 100,000 live births. Estimated percentage of enrollees of the population was 1.7. At an annual growth rate of 2.7%, the estimated population of the southwest zone in 2016 is over 35 million people of which only 1.7% was enrollees under the scheme. Seventy-five per cent or above of enrollees in the zone were registered with just over 10% of all the accredited health facilities.

Funding of the scheme was solely limited to contributions from the federal government while beneficiaries’ contribution was nil, with a resultant shortfall of about one-third of the expected total fund. The population coverage of the scheme in the southwest zone was poor, the distribution of the enrollees across accredited health facilities was grossly skewed, and funding of the scheme was inadequate. These findings have negative implications on efficiency of service delivery, and equitable access to quality health care services. Stakeholders must address these gaps if universal health coverage is to be achieved.

The study was able to capture the situation in the South-West but, relying only on secondary data or qualitative data is not sufficient to conclude on the quality of care, perception of consumers, equity for those with access, and consumer position regarding OOP expenses. There is need for a broad quantitative study to determine these concepts. Looking at the title of the research one cannot but feel the bias of the researcher has taken the front seat in this exercise for the truth; “Nigeria National Health Insurance Scheme: A Highly Subsidized Health Care Program for a Privileged Few”.

The thrust of the study by Onuoha (2014) was to evaluate the co-operatives effect on the adoption of health care insurance using the National Health Insurance Scheme (NHIS). 66 cooperative members were randomly selected from each of the 5 states In the South eastern part of the Nigeria. The data collected were analyzed using both descriptive statistics (mean, standard deviation) and inferential statistics (regression and Ttest).

The result of the study revealed that co-operative membership status has significantly increased awareness and adoption of the National Health Insurance Scheme (NHIS) by co-operative members and the adoption of NHIS have a significant effect on National Health Development. The study recommended among other things that Co-operative societies should properly inform new members of the existence of the scheme and speed up the enlightenment process among members and Co-operative societies should nominate individuals among the members who will act as intermediaries between the cooperative members and the Health Management Organizations (HMOs) in order to fast track the process of adoption. Though, the findings could be generalized for the East, it however, failed to determine or gauge consumer satisfaction with NHIS services at health facilities in the Eastern part of Nigeria.

Onyedibe, Goyit, and Nnadi, (2012) in their study with the objective of determining the proportion of Nigerian adults enrolled in the scheme, their satisfaction with the quality and availability of services within the scheme and the factors responsible for the dismal health indices in the country despite the scheme, prepared questionnaires which were administered randomly to 200 adult respondents in Jos metropolis. The findings show that only 24% of adults were enrolled in the scheme. Notably, 82% of enrolled respondents were aware of NHIS and prefer it to the fee for service system. There was some level of dissatisfaction in the scheme (26% of enrollees). Sources of dissatisfaction included poor registration services, poor referral system, delays in receiving required services and unavailability or non-coverage of some required services. It was statistically determined by the Chi Square tool of analysis that there was a direct relationship between the percentage of enrollees and the poor health indices of the populace.

Looking at the study by Onyedibe, Goyit, and Nnadi, (2012), it could be seen that several limitations exist in the following aspects of the study: 200 questionnaires were administered without any sampling technique adopted, a study with 200 respondents in Jos metropolis alone will not result in findings that could be validated for the whole country as sought by the researchers.

Osuchukwu, Osonwa, Eko, Uwanede, Abeshi, Offiong, (2013) research was aimed at evaluating the impact of National Health Insurance Scheme (NHIS) on healthcare consumers in Calabar metropolis, southern Nigeria. A pre-tested, 43 itemed questionnaires were designed and administered to 200 respondents using the household survey and patient exit survey methods. The result of this study showed that respondents were predominantly males (58.0%), Christians (94.5%), married (56.0%), civil servants (39.5%), had tertiary level of education (60.5%) and aged 30-34 years (27.5%). A reasonable proportion of the respondents 89.0% were aware of the scheme but enrolment into the scheme was only 37%. Inadequate information on the scheme, deficient delivery of health care services and lack of trust on scheme management were significant barriers to enrolment into the scheme. The scheme has a positive impact on health seeking behavior, utilization of maternal health services and reducing out-of-pocket expenditure for health services. About 72% of the respondents expressed their satisfaction with the performance of the scheme, whereas those who were dissatisfied with the scheme's performance suggested it should be reformed.

However, this study was limited to respondents' knowledge and membership of the scheme, health seeking behavior and utilization of health services among respondents (insured and uninsured), utilization of maternal health services by female respondents, perception of consumers (insured and uninsured) towards the scheme and services delivered.

Consumers in Cross Rivers State believe that the quality of healthcare has better-quality due to NHIS, but then again it is not considerably dissimilar with preceding healthcare services. On consumer views of the reasons that encourage their using of NHIS services, data shows that a large number of consumers carefully chose it because it reduced their out-of-pocket spending on healthcare (Eyong, Agada, Asukwo, Irene 2016; Osuchukwu, Osonwa, Eko, Uwanede, Abeshi, Offiong, 2013).

If consumers feel that quality health care improved due to NHIS as the case in Cross River, then why do they still feel there is no real difference between the NHIS and previous healthcare arrangements? The researchers failed to fill the gap between quality service and consumer satisfaction. This is further buttressed by the consumers when they indicated reduced out of pocket cost only as their reason for choosing and or maintaining the NHIS.

A substantial number of consumers of NHIS in studies carried out in Osun and Oyo states admitted that NHIS made them get better speedily after treatment, better their health status, made treatment efficient and ensures availability of drugs (Apeloko, 2017; Owumi, Omorogbe, & Raphael, 2013). In contrast, the results from the research of Mgbe & Kevin, (2014), covering South-Eastern Nigeria points to the fact that regardless of NHIS, drug accessibility is very low and non NHIS consumers have better access to treatment than consumers.

Looking at these findings (South-West & South-East), one cannot but wonder why the disparity? Is every sub-region or even state unique in terms of implementation and its implications?

A study by Oladipupo, Lanre, & Oluwatosin (2017) to determine consumer satisfaction with Health maintenance organizations (HMOs) services, and determine the readiness of non-insured persons to take part in the national health insurance scheme in Abuja Metropolis. The research showed low satisfaction of consumers with services provided by the HMOs as only 54.8% of participants said they were satisfied with the services received.

The critique of this study is it concentrated on HMOs, non-insured and consumers rather than the providers instead of HMOs. The providers are in direct contact with consumers and the level of satisfaction of consumers is vital to enrolling other (non-compulsory/non-insured) members of the public. This further shows the need for research on the implementation of NHIS and its implications, with focus on consumer satisfaction.

A study carried out in Kano, evaluated satisfaction and utilization for healthcare services on consumers of Aminu Kano Teaching Hospital, Kano (AKTHK). It was a study of consumers registered with the NHIS clinic. Most consumers were satisfied with the easy access to care, waiting time, and hospital facilities. Most of them were also satisfied with their interactions with doctors, nurses, laboratory personnel, and other hospital staff. Overall, 80.5% of consumers were satisfied with the Aminu Kano Teaching hospital's services (Yusuf, Jibo, Sunusi, Bukar, Auwal, Godpower, 2018).

The Kano study is indeed a good attempt at evaluating satisfaction and utilization for healthcare services on consumers. However, limiting the study to Aminu Kano Teaching Hospital makes the findings not strong enough for generalization with respect to NHIS satisfaction in kano state or outside of the state.

NHIS affordable premium is one of the benefits consumers are enjoying. 7 studies show the impact (implication) of national health insurance on OOP/Financial Protection (Adewole, Bolarinwa, Dairo, 2016; Osuchukwu, Osonwa, Eko, Uwanede, Abeshi, Offiong, 2013; Eyong, Agada, Asukwo, Irene, 2016; Apeloko, 2017; Adewole, Osungbade, 2016; Ele, Ochu, Odili, Okechukwu, Ogbonna, 2016; Owumi, Omorogbe, Raphael, 2013). In the Southern part of Nigeria (Calabar), people registered with the NHIS due to lower premium charges (Apeloko, 2017). These do not however assert that OOP has reduced. In Osun state (Obafemi Awolowo University) consumers assert that services provided under national health insurance are indeed affordable and that pressure from private healthcare service providers has eased (Apeloko, 2017). This is however, not in agreement with the study of (Eyong, Agada, Asukwo, Irene, 2016) which showed substantial number of consumers still feel NHIS healthcare premiums were high.

It is apparent that there exists a limited number of high quality or high impact literature on the NHIS in Nigeria. From the above empirical review, it is established that the topic is researchable. Which should attempt to fill the gap or unknown; Consumer Satisfaction (Dependable Variable- DV) with NHIS services in Bauchi state. Based on the empirical review, the following variables have also been identified; Equity in access (Independent Variable- IV), Quality of Services (Independent Variable- IV), Consumer Expectations (Independent Variable- IV), and Out of Pocket expenses (Independent Variable- IV).

4. Theoretical framework

4.1. Theory of Justice

John Rawls was an American political philosopher in the liberal tradition whose theory of justice led to the revival of interest in political philosophy in modern times. Rawls himself developed his thinking in the liberal tradition, and followed the methodology of social contract-particularly John Locke's version of the theory-to arrive at the principles of justice. His theory of justice as fairness envisions a society of free citizens holding equal basic rights cooperating within an egalitarian economic system. His account of political liberalism addresses the legitimate use of political power in a democracy, aiming to show how enduring unity may be achieved despite the diversity of worldviews that free institutions allow. His writings on the law of peoples extend these theories to liberal foreign policy, with the goal of imagining how a peaceful and tolerant international order might be possible (Bloom, 1975; Dutta, 2017).

John Rawls in his celebrated work *A Theory of Justice* asserted that a good society is characterised by a number of virtues. Justice is the first virtue of a good society. In other words, justice is necessary but not a sufficient condition of a good society. Those who argue that justice should not be allowed to come into the way of social advancement and progress run the risk of causing the moral degradation of society. In a just society, justice is established as the foundation of the social structure. Hence all political and legislative decisions should be designed to fulfill the requirements of justice (Rawls, 1999; Dutta, 2017).

In 'A Theory of Justice', Rawls argues for a principled reconciliation of liberty and equality. Central to this effort is an account of the circumstances of justice, inspired by David Hume, and a fair choice situation for parties facing such circumstances, similar to some of Immanuel Kant's views. Principles of justice are sought to guide the conduct of the parties. These parties are recognized to face moderate scarcity, and they are neither naturally altruistic nor purely egoistic. They have ends which they seek to advance, but prefer to advance them through cooperation with others on mutually acceptable terms. Rawls offers a model of a fair choice situation (the original position with its veil of ignorance) within which parties would hypothetically choose mutually acceptable principles of justice. Under such constraints, Rawls believes that parties would find his favoured principles of justice to be especially attractive, winning out over varied alternatives, including utilitarian and right libertarian accounts (Rawls, 1999; Dutta, 2017).

Rawls sets out his theory by placing individuals abstracted from their social and economic contexts behind what he calls the 'veil of ignorance'. Perhaps the most influential idea of Rawls's Theory of Justice is the famous thought experiment he called the "original position." The intuition motivating its employment is this: the enterprise of political philosophy will be greatly benefited by a specification of the correct standpoint a person should take in his or her thinking about justice. When we think about what it would mean for a just state of affairs to obtain between persons, we eliminate certain features (such as hair or eye color, height, race, etc.) and fixate upon others. Rawls's original position is meant to encode all of our intuitions about which features are relevant, and which irrelevant, for the purposes of deliberating well about justice (Rawls, 1999; Dutta, 2017).

4.2. Critic of Rawls' Theory of Justice

Rawls' theory of justice has been criticised by various schools of thoughts. In 1974, Robert Nozick, published a defense of libertarian justice, *Anarchy, State, and Utopia*. Walzer (1983), wrote a defense of communitarian political philosophy, *Spheres of Justice*, as a result of a seminar he co-taught with Nozick (1974). In a related line of criticism, Sandel (1982) wrote *Liberalism and the Limits of Justice*, which criticized *A Theory of Justice* for asking us to think about justice while divorced from the values and aspirations that define who we are as persons, and which allow us to determine what justice is (Dutta, 2017).

Collectivists argue that Rawls has discovered the ground for the justification of the existing capitalist system. He has shown that if the rich have the freedom to accumulate wealth, the poor would be automatically benefitted. Even if his principle of fair equality of opportunity is strictly enforced, the existing disparities between the rich and poor will not be substantially reduced. A slight improvement in the condition of the most disadvantaged sections will be treated as an excuse to permit vast socio-economic inequalities (Dutta, 2017).

Robert Paul Wolff wrote *Understanding Rawls: A Critique and Reconstruction of a Theory of Justice* (1977), which criticized Rawls from a Marxist perspective. Wolff argues in this work that Rawls' theory is an apology for the status quo insofar as it constructs justice from existing practice and forecloses the possibility that there may be problems of injustice embedded in capitalist social relations, private property or the market economy (Dutta, 2017).

Feminist critics of Rawls, such as Okin (1989), largely focused on weakness of Rawls' in accounting for the injustices and hierarchies embedded in familial relations. Rawls argued that justice ought only to apply to the basic structure of society. Feminists, rallying around the theme of "the personal is political," took Rawls to task for failing to account for injustices found in patriarchal social relations and the gendered division of labor, especially in the household. Some egalitarian critics have raised concerns over Rawls' emphasis on primary social goods. For instance, Sen (2009) has argued that we should attend not only to the distribution of primary goods, but also how effectively people are able to use those goods to pursue their ends. Amartya Sen, a former student of Rawls', critiques and attempts to revitalize *A Theory of Justice* in his 2009 book *The Idea of Justice*. He credits Rawls for revitalizing the interest in the ideas of what justice means and the stress put on fairness, objectivity, equality of opportunity, removal of poverty, and freedom. However, Sen, as part of his general critique of the contractarian tradition, states that ideas about a perfectly just world do not help redress actual existing inequality. Sen faults Rawls for an over-emphasis on institutions as guarantors of justice not considering the effects of human behaviour on the institutions' ability to maintain a just society. Sen believes Rawls understates the difficulty in getting everyone in society to adhere to the norms of a just society. Sen also claims that Rawls position that there be only possible outcome of the reflective equilibrium behind the veil of ignorance is misguided. Sen believes that multiple conflicting but just principles may arise and that this undermines the multi-step processes that Rawls laid out as leading to a perfectly just society (Dutta, 2017).

4.3. Relevance of the Theory to the work

On a closer analysis, the diverse criticisms of Rawls' theory seem to be based on biased interpretations of his theory. In fact, Rawls has tried to combine different value systems in order to arrive at his theory of justice. Indeed, Rawls' theory of justice represents the convergence of libertarianism, egalitarianism and communitarianism (Dutta, 2017). This idea is relevant to the Nigerian state being an egalitarian and a growing liberal country, making it relevant to the work.

Rawls first principle of justice accords priority to liberty which cannot be compromised for any other benefit. Then Rawls is an egalitarian because he concedes equal liberty for all. Further, he insists that socioeconomic inequalities can be allowed only if they satisfy the condition of fair equality for all. Again, he rules that any reward for merit and effort must satisfy the condition that yields greatest benefit to the least advantaged (Dutta, 2017). This theory is therefore relevant to the work because it is also framed upon the principle of social justice. Meaning it is guided by the need for "fair equality for all". The NHIS is a policy that tries to guarantee just that.

Why should the meritorious accommodate the interests of the least advantaged? Here Rawls invokes the principle of the 'chain connection' operating between different individuals. He shows that society can be strengthened by strengthening its weakest parts successively. The idea of chain connection brings Rawls very close to the image of a communitarian. This aspect of the theory also serves as a guide or frame for the NHIS policy which tries to attain universal coverage with emphasis on the weakest (poorest) in the Country. The act of strengthening the weakest amongst us will lead to a better society overall. In his writings Rawls seems especially concerned with the problem of assuring political stability in a pluralist or multicultural social environment, and Nigeria is a multicultural social environment (Bloom, 1975; Rawls, 1999; Dutta, 2017).

5. Results

5.1. Correlation Analysis

The correlation matrix seeks to determine the relationships that exist between variables used in the research. Table 1 indicates the relationship that exists between implementation of NHIS and its implications on health Service in Bauchi State. The relationship between COMSU and EQUITY is positive at 0.642, this means that an increase in Equity of Access of health services lead to increase in Consumer satisfaction with health services and vice versa. This is actually obvious that Hospitals with high Access to health services are expected to have a high level of consumer satisfaction on the health services render to them. Also, COMSU is positively correlated to the QUALITY of services with a coefficient of 0.832, positively with CONSUMEXP with a coefficient of 0.731 and a negative relationship with OOPEXP (coefficients of -0.516). The negative relationship implies an inverse relationship indicating an increase in one variable will lead to a decrease in the other variable.

In conclusion, from the computed result, the correlation coefficient between EQUITY of Access and COMSU is found to be significance at 5% level. For this reason, it was concluded that there is a strong positive relationship between Equity of Access and Consumer satisfaction with health services. The correlation relationship between Quality of Service and Consumer Satisfaction was found to be significance at 5% level. It shows that there is a positive correlation. The correlation coefficient between Consumer Expectation is positive at 5% level. It can be concluded that there is positive and significant correlation between Consumer Expectation and Consumer Satisfaction of health services. Equally the correlation coefficient between Out-of-pocket Expenses and Consumer Satisfaction is negative and significance at 5% level.

Table 1 Correlations Analysis

		COMSU	EQUITY	QUALITY	CONSUMEREXP	OOPEXP
Pearson Correlation	COMSU	1.000	0.642	0.832	0.731	-0.516
	EQUITY	0.642	1.000	0.623	0.579	0.643
	QUALITY	0.832	0.623	1.000	0.639	0.504
	CONSUMEREXP	0.731	0.579	0.639	1.000	0.544
	OOPEXP	-0.516	0.643	0.504	0.544	1.000

Source: Author's Computation using SPSS, 2024

5.2. Regression Analysis

5.2.1. Regression Result (Model Summary) of Equity Access, Quality of Service, Consumer Expectation and Out of Pocket Expenses on Consumer Satisfaction with Health Services

There are four proxies used to measure the independent variables for this study, i.e. Equity of Access, Quality of Service, Consumer Expectation and Out of Pocket Expenses (Independent variables) and dependent variable - is Consumer Satisfaction with Health Services. The Model in this study was design to test the relationship and influence on the Implementation of NHIS and its implication on health services.

From Table 2, result revealed that the coefficient of multiple correlation, $R = 0.871$ between Equity of Access, Quality of Service, Consumer Expectation and Out of Pocket Expenses relationship with Consumer Satisfaction on Health Services. An examination of the table shows that the $R\text{ square} = 0.759$ which implies that Equity of Access, Quality of Service, Consumer Expectation and Out of Pocket Expenses accounts for approximately 75.9% of the total was explained by changes in the independent variables. In other words, Equity of Access, Quality of Service, Consumer Expectation and Out of Pocket Expenses explained Consumer Satisfaction on Health Services by 75.9% and the remaining 24.1% account for other variables not included in this study.

Table 2 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.871	0.759	0.732	0.24932	1.805

Source: Author's Computation using SPSS, 2024

5.2.2. Regression Result (Coefficients) of Equity Access, Quality of Service, Consumer Expectation and Out of Pocket Expenses on Consumer Satisfaction with Health Services

The table 3 revealed the degree of influence of Equity of Access, Quality of Service, Consumer Expectation and Out of Pocket Expenses relationship with Consumer Satisfaction with Health Services and its level of significance.

The simultaneous regression analysis was carried out to ascertain the combine effect of these proxy variables. All the predictors (Equity of Access, Quality of Service, Consumer Expectation and Out of Pocket Expenses) yielded significant beta weights with $\beta_1 = 0.367$, $\beta_2 = 0.082$, $\beta_3 = 0.265$ and $\beta_4 = 0.175$ respectively with their varied t - values which are all statistically significant and positive, while their respective P- values at less than 0.05 ($P < 0.05$) in each case. This implies that there is significant effect of these proxy-variables on the customers' satisfaction on health services in Bauchi state. Therefore, the null hypotheses formulated is rejected, in view of the positive and significant relationship being established from the statistical analysis made thereof.

The Multiple Regression Model is given as $Y = a + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4$, is the same as:

$$COMSU = 3.255 + 0.367 \text{ EQUITY} + 0.082 \text{ QUALITY} + 0.265 \text{ CONSUMEXP} + 0.175 \text{ OOPEXP}$$

Therefore, Null hypothesis is rejected and the alternative hypothesis is accepted and considered. That is, Equity of Access, Quality of Service, Consumer Expectation and Out of Pocket Expenses relationships has a significant influence on Consumer Satisfaction with Health Services of NHIS hospitals in Bauchi State. The individual hypotheses were tested below:

Table 3 Table of Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.255	0.239		13.634	0.962
	Equity	0.367	0.081	0.354	5.944	0.000
	Quality	0.082	0.078	0.080	2.518	0.000
	Consumerexp	0.265	0.093	0.236	6.636	0.000
	OOPEXP	-0.175	0.073	0.135	3.567	0.041

Source: Author's Computation using SPSS, 2024

5.3. Test of Hypotheses

The study on the implementation of NHIS and its implication on Health Services in Bauchi State as seen in chapter one, has four hypotheses that was formulated. Hypotheses 1, 2, 3 and 4 were validated using the result of regression analysis in the model to determine the relationship among the variables under investigation (Consumer Satisfaction with Health Services of NHIS Hospitals in Bauchi State).

5.3.1. Equity Access and Consumer Satisfaction with Health Services

Hypothesis 1

H₁: Equity has significant influence on consumer satisfaction with health NHIS under primary healthcare facilities in Bauchi State. The regression result shows a coefficient of $\beta_1 = 0.367$; $p = 0.000$, indicates a positive and significant relationship between Equity and consumer satisfaction with NHIS under primary healthcare facilities in Bauchi State. Since p - value = 0.000, which is less than 0.05, the model is significantly fit and therefore the result of this supported the Alternative Hypothesis (H₁) that Equity has significant influence on consumer satisfaction with NHIS under primary healthcare facilities in Bauchi State. The Alternative hypothesis (H₁) is accepted and the Null hypothesis (H₀₁) which states Equity has no significant influence on consumer satisfaction with health NHIS under primary healthcare facilities in Bauchi State is here by rejected. This implied that there is significant relationship between Equity and consumer satisfaction under NHIS primary healthcare facilities in Bauchi State.

5.3.2. *Quality Service and Consumer Satisfaction with Health Services*

Hypothesis 2

H₂: Quality of service(s) has significant influence on consumer satisfaction with health NHIS under primary healthcare facilities in Bauchi State. The regression result shows a coefficient of $\beta_2 = 0.082$; $p = 0.000$ indicated a positive and significant relationship between Quality of service(s) and consumer satisfaction with health NHIS under primary healthcare facilities in Bauchi State. Since p - value = 0.000, which is less than 0.05, the model is significantly fit the data and therefore the result of this support Alternative Hypothesis (H₂) that Quality of service(s) has significant influence on consumer satisfaction with health NHIS under primary healthcare facilities in Bauchi State. The Alternative hypothesis (H₂) is accepted and the Null hypothesis (H₀₂) which states Quality of service(s) has no significant influence on consumer satisfaction with health NHIS under primary healthcare facilities in Bauchi State is here by rejected. It is therefore concluded that there is significant relationship between Quality of service(s) and consumer satisfaction under NHIS primary healthcare facilities in Bauchi State.

5.3.3. *Consumer Expectation and Consumer Satisfaction with Health Services*

Hypothesis 3

H₃: Consumer expectation(s) has significant influence on consumer satisfaction with NHIS under primary healthcare facilities in Bauchi State. The regression result shows a coefficient of $\beta_3 = 0.265$; $p = 0.000$, indicating a positive and significant relationship between Consumer expectation(s) and satisfaction with health NHIS under primary healthcare facilities in Bauchi State. Since p-value = 0.000, which is less than 0.05, the model is significantly fitted the data and therefore the result of this agrees with the Alternative Hypothesis (H₃) that Consumer expectation(s) has significant influence on consumer satisfaction with NHIS under primary healthcare facilities in Bauchi State. The Alternative hypothesis (H₃) is therefore accepted and the Null hypothesis (H₀₃) which states Consumer expectation(s) has no significant influence on consumer satisfaction with health NHIS under primary healthcare facilities in Bauchi State is here by rejected. This implied that there is significant and positive relationship between Consumer expectation(s) and consumer satisfaction under NHIS primary healthcare facilities in Bauchi State.

5.3.4. *Out of Pocket Expenses and Consumer Satisfaction with Health Services*

Hypothesis 4

H₄: Out of Pocket expenses has significant influence on consumer satisfaction with NHIS under primary healthcare facilities in Bauchi State. The regression result shows a coefficient of $\beta_4 = -0.175$; $p = 0.041$. This indicated a negative and significant relationship between Out-of-Pocket expenses and consumer satisfaction with NHIS under primary healthcare facilities in Bauchi State. Since p - value = 0.091, which is less than 0.05, the model fits the hypothesis and therefore the result of this support Alternative (H₄) that Out-of-Pocket expenses has significant influence on consumer satisfaction with NHIS under primary healthcare facilities in Bauchi State. The Alternative hypothesis (H₄) is accepted and the Null hypothesis (H₀₄) which states Out of Pocket expenses has no significant influence on consumer satisfaction with NHIS under primary healthcare facilities in Bauchi State is here by rejected. This implied that there is significant relationship between Out-of-Pocket expenses and consumer satisfactions under NHIS primary healthcare facilities in Bauchi State

5.4. **Interview**

Table 4 Table of Thematic Analysis for equity access

Is there equity of access to health care for NHIS enrollees compared to patients paying cash out of pocket?

Participants	Organization	Interview extract	Codes	Themes
Desk officer	GHD	I'm 50% sure of equity access to health care for NHIS enrolees in our facility. And enrolees are averagely ok with the level of access.	To some extend the equity of Access	Average
Desk officer	FMCA	There is no doubt about our registered NHIS enrolees having complete access to all benefits under the	There is equity of access	Complete

		scheme. That is why we have no complaints from consumers.		
Desk officer	SHB	Of course, there is room for improvement but overall NHIS enrolees enjoy an acceptable level of access to health care and satisfaction.	To some extent the equity of Access	Average

5.5. Equity Access Report

From the interview two out of the respondents are of the opinion that there is to some extent equitable access to health care services by the consumer while only one of the respondents is of the opinion that there is equitable Access on services delivered to consumer by the primary health care within Bauchi State. This implies there is an average level of equity access to health care services in Bauchi state based on the thematic analysis.

Table 5 Table of Thematic Analysis for quality service

How would you describe the quality of health care services for NHIS enrollees under primary care in your facility?

Participants	Organization	Interview extract	Codes	Themes
Desk officer	GHD	I believe there is a satisfactory level of quality service for NHIS enrolees in our facility. Yes, we have had several complaints but all in all, they are ok here	Moderate quality	Average
Desk officer	FMCA	I’m confident of the superior quality of service under the scheme. Enrolees rate us high.	High quality	Complete
Desk officer	SHB	We are working on improving the already good quality of service for NHIS enrolees. They are 50% satisfied here.	Moderate quality	Average

5.6. Quality of Service Report

On the level of service quality, two of the respondents are of the opinion that the services rendered for the primary health care under NHIS are of moderate quality, while one of the desk officers is of the opinion that quality is high. The report for this based on the thematic analysis is that quality of service is of average level.

Table 6 Table of Thematic Analysis for expectations of NHIS consumers

How would you as a desk officer describe the expectations of NHIS consumers on healthcare delivery under your primary healthcare facility?

Participants	Organization	Interview extract	Codes	Themes
Desk officer	GHD	I believe there is high expectation and we are averagely trying.	High expectation	Complete
Desk officer	FMCA	Based on my experience there is high expectation from the enrolees and we are meeting their expectations.	High expectation	Complete
Desk officer	SHB	There is a realistic level of expectation, which we are trying meet.	Moderate expectation	Average

5.7. Consumer Expectation Report

Base on the responses from the interview two of the desk officers believed that there is high expectation on the part of the consumers on the level of satisfaction with health services under primary health care facilities in Bauchi State. On the other hand, one of the respondents is of the opinion that the consumers have a moderate expectation. Thematically, translates to complete.

Table 7 Table of Thematic Analysis for out of pocket

In your professional experience, how would you describe the realities of out of pocket (OOP) medical expenses for NHIS consumers under primary healthcare in your facility?

Participants	Organization	Interview extract	Codes	Themes
Desk officer	GHD	I believe OOP cannot be completely or easily done away with, but there is an acceptable amount of expenses (OOP) incurred by consumers.	To some extent OOP exists	Average
Desk officer	FMCA	NHIS completely meets the needs of between 95-98% of enrolees. So, no OOP expenses.	No OOP expenses	Complete
Desk officer	SHB	We have had cases of OOP expenses from consumers due to some issues, but we are improving upon our services especially issue of NHIS enrolees satisfaction with level of OOP expenses	To some extent OOP exists	Average

5.8. OOP Expenses Report

Two of the respondents say some of their registered consumers feel the need to spend out of pocket despite the NHIS services. One however says NHIS is adequate and has ensured that consumers no longer spend out of pocket. Thematic analysis is showed an average level of OOP expenses.

6. Discussion of Findings

6.1. Equity and Consumer Satisfaction with Health Services

Findings from the analysis reveal that the Equity has positive and significant impact on consumer satisfaction under NHIS primary healthcare facilities in Bauchi State. This suggests that there is average equitable Access of health services by consumers under NHIS primary healthcare facilities in Bauchi State at a significant level. The relationship between Equity and consumer satisfaction with health services is also significant because of varying reasons despite the fact that, there are limited numbers of NHIS primary healthcare facilities in Bauchi State. Equity Access is an important variable affecting consumer satisfaction on health services particular in Bauchi State. Once an NHIS primary health care center gives fair access to consumers it will also look for ways of expanding its scale of operations and thus increase consumer satisfaction with health services. Once NHIS primary healthcare facilities center becomes more accessible, the satisfaction of consumers will increase. Therefore, Equity access can be relevant and reliable because the coefficient regression result is significant.

Conclusively, this result implies Equity significantly influenced consumer satisfaction with NHIS health services in Bauchi State. The result is in line with the findings of previous studies, which reveals that Equity has a significant relationship with consumer satisfaction on health services (Oparah, 2018, Kurfi and Aliro, 2017: Mohammed *et al*, 2011: Abdulqadir 2012: Onyedibe *et al*, 2012).

6.2. Quality Service (s) and Consumer Satisfaction with Health Services

Findings from the analysis revealed also that the Quality of service has positive and significant impact on consumer satisfaction under NHIS primary healthcare facilities in Bauchi State. The relationship between Quality of services and consumer satisfaction with health services is significant because of some hospitals under the NHIS primary healthcare facilities in Bauchi State were equipped with the necessary medical facilities needed for treatment of almost all forms of medications to the consumer. Equally, some Hospitals under NHIS primary healthcare facilities in Bauchi State are lacking the require expert or has grossly limited experts needed for the require medical service for consumers which inversely affect the level of consumer satisfaction with the level of health service delivery, but the provision of referral services bridge the gap and customers are not much complaining about that. Therefore, quality of service is a veritable tool to measure consumer satisfaction if all the required facilities and expertise are on ground to give the needed medication to the needing consumer thereby improving the level of consumer satisfaction with health services.

Conclusively, this result reveals that Quality of service delivered by hospital under NHIS primary health care facilities significantly influenced consumer satisfaction with NHIS health services in Bauchi State. The findings in this research work are in conformity with the works of Oparah, 2018, Kurfi and Aliro, 2017: Mohammed *et al*, 2011: Abdulqadir 2012: Onyedibe *et al* 2012).

6.3. Consumer Expectation (s) and Consumer Satisfaction with Health Services

The result from this study shows that Consumer expectation (s) has positive and significant impact on Consumer Satisfaction under NHIS Primary Healthcare facilities in Bauchi State. Most Consumers under NHIS Primary Healthcare facilities in Bauchi State are of high believe that the best of medical services can be gotten under the NHIS. This is because the results shown a positive and significant relationship between Consumer expectations and Consumer Satisfaction with health service. The positive relationship could be that the reality on ground as far as the NHIS Primary Healthcare facilities in Bauchi State is concerned when compare to the programs and policies of NHIS which are documented in the scheme has reflected the basis for the establish of NHIS.

Conclusively, the result shown that consumer expectations are averagely met with under the NHIS Primary Healthcare facilities in Bauchi State. This result is in line with the findings of Oparah, 2018, Kurfi and Aliro, 2017: Mohammed *et al*, 2011: Abdulqadir 2012: Onyedibe *et a.,/* 2012 from previous studies which reveals that to achieve consumer satisfaction with health services, is the ability of the primary healthcare providers to meet with the yearning of the consumer on health services.

6.4. Out of Pocket Expenses and Consumer Satisfaction with Health Services

The findings from the analysis reveal that the Out-of-pocket expenses has a negative and significant impact on consumer satisfaction under NHIS primary healthcare facilities in Bauchi State. This suggests that there is an inverse between OOP and consumer expectation. This effect depends on the health care process and quality of care for consumers of the NHIS primary healthcare facilities in Bauchi State.

Conclusively, this result implies Out of pocket expenses significantly influenced consumer satisfaction with NHIS health services in Bauchi State. The result is in line with the findings of previous studies like (Oparah, 2018, Kurfi and Aliro, 2017: Mohammed *et al*, 2011: Abdulqadir 2012: Onyedibe *et al.*, 2012).

7. Conclusion

The study used a sample of 382 respondents with 373 as the valid returns from the three senatorial zones in Bauchi State for the period 2013 -2018. The analysis was performed on the data collected which covers the formal sector within the primary health care centers in Bauchi State.

The finding indicates Equity and Quality service have positive and significant impact on consumer satisfactions with health services. This means there is still need to improve on fair access as well as qualitative health care services under NHIS primary health facilities. The implication of this finding is that consumers are given the limited access and low-quality care or drugs.

The finding indicates that Consumer expectation and out of pocket expenses have significant impact on consumer satisfaction with health services among hospitals in Bauchi State. This means the level of expectations is high and yet the consumers were dissatisfied with the health services under this platform. Equally, evidence has shown that on the average consumers under the NHIS primary health care facilities are forced to incur some cost resulting from lack of medical accessories or consumables needed for their medications. While sometimes as a result of low quality of prescribed drugs.

The finding indicated that if these services were to be adequately provided and managed the way they were advertised, consumer satisfaction will be enhanced significantly.

Recommendations

Given the importance of implementation of NHIS and its implication on health Service in Nigeria and Bauchi State in particular, there is the need for the following recommendations:

- To improve on the level of Equity Access on the services of NHIS primary health care to improve the level of consumer satisfaction with health services. This can be achieved through adequate provision of human and material resources allocated to the NHIS category with quarterly review of performance.
- Quality of drugs and service must be a priority in NHIS health care facilities. This is to ensure NHIS patients like other categories of patients get the best treatment available. This can be attained by setting up a monitoring committee at each facility to monitor quality of health care delivery for NHIS enrollees.
- Desk officers have a role in ensuring the high expectations of NHIS enrollees are met. This can be through periodic awareness lectures, pamphlets and prompt response to enrollee complaints. Attaining the above requires the support of the hospital management, which the desk officer can help facilitate.
- A key aim of NHIS is to solve the problem of out-of-pocket expenses for millions of Nigerians, most of whom cannot afford to pay out of pocket. Thus, hospitals must always have adequate stock of basic qualitative drugs and other relevant equipment's with a standard computerized healthcare delivery system.

Compliance with ethical standards

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Disclosure of conflict of interest

No conflict of interest to be disclosed.

References

- [1] Abdulqadir, N. S. (2012). Knowledge, Attitude, Perception and Clients' Satisfaction with National Health Insurance Scheme Services (NHIS) at General Hospital Minna, Niger State, Nigeria.
- [2] Adewole D, Bolarinwa O, & Dairo M. (2016). National Health Insurance Scheme and Universal Health Coverage among Formal Sector Employees in Ilorin, Nigeria: Has Any Progress Been Made? *Int J Trop Dis Health*. 18(4):1-10.
- [3] Adewole, D. A., & Osungbade, K. O. (2016). Nigeria National Health Insurance Scheme: A Highly Subsidized Health Care Program for a Privileged Few. *International Journal of Tropical Disease & Health* 19(3): 1-11, 2016, Article no.IJTDRH.27680 ISSN: 2278-1005, NLM ID: 101632866 Science Domain International www.sciencedomain.org
- [4] Akande, T M., Salaudeen, A.G, Babatunde, O.A., Durowade, K. A., Agbana, B. E.& Olomofe, C. O. (2012). "National Health Insurance Scheme and Its Effect on Staff's Financial Burden In a Nigerian Tertiary Health Facility". *International Journal of Asian Social Science*, 22:2175-2185.
- [5] Anita, H. and Yong, L. (2015). Health Insurance. *Encyclopedia of Global Bioethics*. Springer Science+Business Media Dordrecht. DOI 10.1007/978-3-319-05544-2_222-1.
- [6] Apeloko, D. O. (2017). Health Insurance Scheme (NHIS) in Nigeria: An Empirical Survey. *Int J Polit Good Gov*, 8(8), 1-25.
- [7] Bloom, A. (1975). John Rawls Vs the Tradition of Political Philosophy (Review). *American Political Science Review*. Vol.69, No.2, pp. 648-662. Available https://www.jstor.org/stable/1959094?seq=1#page_scan_tab_contents
- [8] Babbie, E. (1986). *The Practice of Social Research*. California: Wadsworth.
- [9] Braun, V., & Clarke, V. (2006). Using Thematic Analysis in Psychology. *Qual Res Psychol*, 3(2): 77-101.
- [10] Braun, V., & Clarke, V. (2012). Thematic Analysis. In: Cooper H, editor. *APA Handbook of Research Methods in Psychology*. Vol. 2, Research Designs. Washinton (DC): American Psychological Association.
- [11] Cohen, A & Manion, L. (1980). *Research Methods in Education*. London: Croon Helm.
- [12] Daramola O.E., Maduka W.E., Adeniran A., Akande T.M, (2017). Evaluation of Patients' Satisfaction with Services Accessed under the National Health Insurance Scheme at a Tertiary Health Facility in North Central, Nigeria. *Journal of Community Medicine and Primary Health Care*. 29 (1) 11-17.

- [13] Daramola O.E., Adeniran A., Akande T.M, (2018). Patients' Satisfaction with the Quality of Services accessed under the National Health Insurance Scheme at a Tertiary Health Facility in FCT Abuja, Nigeria. *Journal of Community Medicine and Primary Health Care*. 30 (2) 90-97.
- [14] Dutta, S. (2017). Rawls' Theory of Justice: An Analysis. *IOSR-JHSS Journal*. Available www.iosrjournals.org
- [15] DeFranzo, S. E. (2014). Advantages and Disadvantages of Face-to-Face Data Collection. *Snapsurveys*. Available <https://www.snapsurveys.com/blog/advantages-disadvantages-facetoface-data-collection/>
- [16] DeJonckheere, M. & Vaughn, L.M. (2019). Semistructured interviewing in primary care research: a balance of relationship and rigour. *Family Medicine and Community Health Journal*; doi: 10.1136/fmch-2018-000057. Available: <https://fmch.bmj.com/content/7/2/e000057#:~:targetText=Semistructured%20interviews%20are%20an%20effective,personal%20and%20sometimes%20sensitive%20issues.>
- [17] Eyong AK, Agada PO, Asukwo EO, Irene C. (2016). Awareness of National Health Insurance Scheme (NHIS) and Quality of Health Care Services among Civil Servants in Cross River State, Nigeria. *Res Humanit Soc Sci*. (13):1-10.
- [18] Ezeoke, P., Onwujekwe, E., & Uzochukwu, S. (2012). Towards Universal Coverage: Examining Costs of Illness, Payment, and Coping Strategies to Different Population Groups in Southeast Nigeria. *AmJTrop Med Hyg* (86):52-57.
- [19] Krejcie, R.V., & Morgan, D.W., (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*.
- [20] Lagomarsino, G., Garabrant, A., Adyas, A., Muga, R., & Otoo, N. (2012). Moving Towards Universal Health Coverage: Health Insurance Reforms in Nine Developing Countries in Africa and Asia. *Lancet*, (380) 933-943.
- [21] Leung, S. O. (2011). A comparison of psychometric properties and normality in 4-, 5-, 6-, and 11-point Likert scales. *Journal of social service research*, 37(4), 412-421.
- [22] Mohammed, S., Sambo, M.N., & Dong, H. (2011). Understanding client satisfaction with a health insurance scheme in Nigeria: factors and enrollees experiences. *Health Research Policy and Systems*, 9, 20 - 20.
- [23] McIntyre, D., Garshong, B., Mtei, G., Meheus, F., Thiede, M., Akazili, J., Ally, M., Aikins M., Mulligan, A, & Goudge, J. (2008). Beyond Fragmentation and Towards Universal Coverage: Insights from Ghana, South Africa and the United Republic of Tanzania. *Bulletin of the World Health Organisation* (86)871-876.
- [24] Mgbe, C. G., & Kevin, E. M. (2014). Evaluation of National Health Insurance Scheme: Benefits and Challenges in Eastern Nigeria: A Case Study. *South Am J Public Health*, 2(4), 491-506.
- [25] Oladipupo, O. O., Lanre, A. O., & Oluwatosin, J. S. (2017). Health insurance enrollees' satisfaction with health maintenance organizations and non-enrollees' willingness to participate and pay for health insurance in Abuja, Nigeria. *International Journal of Community Medicine and Public Health*, 4(11), 3976-3982.
- [26] Mustapha Kurfi, M., Hussaini Aliero, I., & Author, C. (2017). C. A study on clients' satisfaction on the national health insurance scheme among staff of Usmanu Danfodiyo University Sokoto. *IOSR J Econ Financ*, 8, 44-52
- [27] NHIS Operational Guidelines- Revised (2012). Available www.nhis.gov.ng/index.php Accessed on 13th June, 2019.
- [28] NHIS (1999). National Health Insurance Scheme Decree No.35 of 1999. Laws of the Federation of Nigeria. Available www.nigeria-law.org Accessed 17th June, 2019.
- [29] Nozick, R. (1974). *Anarchy, state, and utopia*. John Wiley & Sons.
- [30] Okin, S. M. (1989). Reason and feeling in thinking about justice. *Ethics*, 99(2), 229-249.
- [31] Okoro, R., Nmeka, C., & Erah, P. (2017). Drug Use in the National Health Insurance Scheme at a Tertiary Hospital in the South East Nigeria. *Journal of Advances in Medical and Pharmaceutical Sciences*, 12(1), 1-10.
- [32] Olakunle, O. A. (2004). *Research methods in Social Sciences* (2nd ed.). Norway: D-Net Communications E-Book Press.
- [33] Onyedibe, I., Goyit, G., & Nnadi, E., (2012) An Evaluation of the National Health Insurance Scheme (NHIS) in Jos, a North-Central Nigerian City. *GlobAdv Res J Microbiol*. 1(1):5-12. Available: <http://garj.org/garjm/index.htm>
- [34] Oparah, P. C., Amah, A. U., Ifeanyichukwu, C. D., Aghara, V., & Ndubisi, E. (2018) Service Quality: An Empirical Study of Expectations versus Perception of National Health Insurance Scheme Enrollees in Federal Universities

in South East, Nigeria. *International Journal of Academic Research in Economics and Management Sciences*, 7(3), 149-165.

- [35] Osuchukwu Nelson, C., Osonwa Kalu, O., Eko Jimmy, E., Uwanede, C. C., & Abeshi, S. E. (2013). Evaluating the impact of national health insurance scheme on health care consumers in calabar metropolis, southern Nigeria. *International Journal of Learning and Development*, 3(4), 30-45.
- [36] Owumi, B. E., & Omorogbe, C. E. (2013). An evaluation of the impacts of the National Health Insurance Scheme on the employees' health status at the university of Ibadan.
- [37] Rawls, J. (1999). *A Theory of Justice (Revised Edition)*. USA: Harvard University Press.
- [38] Sandel, M. (1982). *Liberalism and the Limits of Justice*. Cambridge University Press. U.S.
- [39] Sen, A. (2009). *The Idea of Justice*. New Delhi, Penguin Books Ltd.
- [40] Sekaran, U. (2000). *Research Methods for Business (3rd Ed.)*. Canada: John Wiley & Sons, Inc.
- [41] The National Health Insurance Scheme [Nigeria]. [<http://www.nhis.gov.ng/>] Accessed 1Mar 2019.
- [42] Wagstaff A. (2010) Social Health Insurance Re-examined. *Health Economics*, 19:503-517.
- [43] Walzer, M. (1983). *Spheres of Justice: A Defense of Pluralism and Equality*. Basic Books. U.S.
- [44] Wolff, R. P. (1977). *Understanding Rawls: A Critique and Reconstruction of A Theory of Justice*. Princeton University Press. New Jersey.
- [45] World Health Organization (2010). *The World Health Report – Health Systems Financing: The Path to Universal Coverage*. World Health report. <http://www.who.int/whr/2010/en/index.html>. Access 10/06/19.
- [46] Yang, K. (2010). *Making sense of Statistical methods in Social Research*. London: SAGE Publications Ltd.
- [47] Yusuf, Jibo, Sunusi, Bukar, Auwal, Godpower, (2018). Assessment of satisfaction and utilization of health-care services by National Health Insurance Scheme enrollees at Aminu Kano Teaching Hospital, Kano, Nigeria. *Pyramid Journal of Medicine*; vol.1:20. doi:10.4081/pjm.2018.20.