

Determinants of Healthcare Choice in Kontagora Town

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Abstract

This study examined the determinants of healthcare choice in Kontagora town. The objective was to investigate the factors that influence the choice of healthcare providing facility in the study area and to ascertain the extent at which the available healthcare facilities are accessible to the residents of the area. Data were retrieved through self interviewer-administered questionnaires involving 100 consenting participants selected through a random sampling technique. The study utilised the multiple regression equation. The study revealed that gender, marital status, education, and religion are significant factors that influence the choice of healthcare. The study also revealed that most respondents (about 45.7%) used the public health service. In comparison, only 38% preferred private healthcare services, indicating a growing trend towards private healthcare facilities as a choice of medical services among the people of Kontagora. The selection of healthcare service was attributed to cost and quality service, effective treatment, nearness of the facility, and waiting time. The study recommended that government and stakeholders play a significant role in increasing community-based health education, creating awareness, and improving access to information through public discussions and local media.

Keywords: Healthcare, Kontagora, Random Sample, Regression, Health Education

JEL Classification: I11

1. Introduction

Health plays an increasingly vital role in any nation's economic growth and development (Lawson, 2009; Babatunde, 2012). The relevance of health in determining financial performance, at least at the micro-level, has been demonstrated in economic growth literature (Imoughele & Ismaila, 2013). Assuming all other factors are held constant, healthier workers are more likely to be able to work longer and be more productive than their less healthy counterparts, resulting in better wages. Nigeria has also joined the rest of the globe in the search for improved health services for Nigerians, as evidenced by government initiatives aimed at improving the health sector to boost the country's economic output (Imoughele & Ismaila, 2013). The Nigerian government has implemented various healthcare reforms even before its independence in 1960. The first reform was the Ten-year Development Plan, which aimed to improve the country's health care system. The plan witnessed the development and execution of several schools and institutions that have a direct relationship with the government's healthcare system. The Plan established over 10,000 general hospitals and numerous country healthcare services centres (National Health Insurance Scheme [NHIS], 1999; NHIS, 2012). In August 1987, the Primary Health Care Plan was established with the sole aims and objectives of monitoring and improving the healthcare collection, motivating

personnel of the healthcare system, and making the availability of healthcare drugs as well as boosting immunisation programs in the country, among others (NHIS, 1999).

The impacts of the Primary Health Care Plan left little to be desired in the health sector of Nigeria as the plan suffered primary deficiency in personnel and infrastructural as well as lousy health management. This resulted in the establishment of the Nigerian Health Insurance Scheme (NHIS) with the sole aim of revitalising the existing worsening state of the health sector in the country (NHIS, 1999; National Health Bill, 2008). Other objectives include; total access to good healthcare services by all the Nigerian citizens, reducing the financial cost of medical bills significantly, reducing the cost of medical bills in the health care system, equitable distribution of health care bills across income groups, and equitable patronage of health care system among the government levels. Enormous resources have been expended on the country's healthcare system since the scheme's inception; however, all the plans witnessed little or no significant achievement over time, as indicated by the deteriorating level of health indicators in the country, especially in the recent decades. For instance, the death rate, HIV prevalence, infant mortality, and life expectancy have declined Akande, (2004). The decline in progress has been attributed to various factors, including but not limited to inadequate excellent and stable governance, poor stakeholder participation, a grossly underfunded healthcare system, and insufficient human and infrastructural capacity. For instance, the government's total annual expenditure on the health sector has been consistently less than 5% of the budget World Bank, (2021). Statistics have shown that comprehensive health institutions in the country include about 33,303 general hospitals and an estimated 20,278 primary healthcare centres and posts. At the same time, Federal hospitals are estimated to be around 59, which comprise 20 Teaching Hospitals, 22 Federal Medical centres, 3 National Orthopedic hospitals, 7 Psychiatric hospitals, and a National Eye centre Omoruan, Bamidele & Phillips, (2009).

Nigeria's healthcare system is made up of both public and private healthcare providers. The three tiers of government are responsible for the healthcare system in the country, with the private sector contributing as well Idowu & Okedere, (2020). The Federal government is in charge of the tertiary healthcare system, whilst the State government controls the numerous secondary healthcare delivery systems under the Ministry of Health's supervision. At the same time, the Local government is in order of primary healthcare oversight, equally supported by the Ministry of Health at the State level. Primary care services have different sub-levels in the local districts and villages. Secondary healthcare providers and those who provide both primary and speciality care are the three types of healthcare providers in the private sector Uchendu, Ilesanmi & Olumide, (2013). Out-patients receive only preventive and curative care at most primary health locations. The private sector also contributes significantly to the country's healthcare system, and its impact increases every year, providing about 60% of health care in the country and owning about 38% of the facilities Amaghionyeodiwe, (2008). The wide variations in the health care system depend mainly on the type, timing, and nature of health medications sought or received is difficult to overlook (Debas, Laxminarayan & Straus, 2006). Whatever their choice of medical attention, people with health problems have one common goal regardless of the type of mediation they use; they all want to be healthier and fully satisfied with the treatment received Kaamal, (2017). Regrettably, not all health medication options provide the same level of chance to enhance the health seekers' circumstances. Some of these channels, particularly time-sensitive health issues, may worsen an individual's health situation or even result in

death Ruiz et al., 2010; Ernst et al., (2003). This study concerns the factors influencing peoples' decisions about medical treatment and the healthcare provision they seek when they are sick. According to the Nigeria Demographic and Health Survey [Nigeria DHS] (2008), a large percentage of the country's citizens are without health insurance, which implies that the majority of the population must pay for healthcare treatment personally Nigerian Population Commission [NPC], (2009). As a result, beneficiaries of healthcare services are more inclined to base their decision on certain variables while seeking medical treatment. It is impossible to determine the elements that impact patients' choice of healthcare facility without considering several variables, some of which are beyond the control of the consumer of healthcare service. As a result, unlike purchasing physical items such as clothing or automobiles, precisely assessing how patients feel about their outpatient visit, hospital stay, medical procedure, or overall health care experience can be challenging (Debas, Laxminarayan & Straus, 2006).

2. Literature Reviews

Many researchers have devoted time and energy to studying the factors influencing the choice of healthcare-providing facility. However, several studies looked at health care usage in general rather than specific areas. This study used an analytical technique to evaluate the predictors of healthcare service provider choice by Kontagora town residents. Saksena, Xu, Elovaino, and Perrot (2010) studied the influence of distance on the consumption of healthcare services in Kogi State, Nigeria. The result found that public facilities were preferred over private ones due to the lower cost of healthcare services. In their economically productive years, respondents also mentioned cost as an essential factor in their decision to use public healthcare rather than private healthcare services. Amghionyediwe (2008) examined the determinants of the choice of healthcare providers in Nigeria using the individual and household questionnaire and employing the multinomial logit model. The findings show that distance and financial costs are essential deterrents to receiving modern healthcare services. Many low-income families choose self-care as a result of financial constraints. The study also revealed that elderly persons are more likely to visit public and private hospitals.

Dey and Mishsha (2014) studied the determinants of the choice of healthcare utilisation in India using the logistic regression on National Level Health Survey Data, national family health survey-3 (NFHS-3). Findings from the study indicated that with increasing age, lower-income group people, uneducated, weaker sections of the society, and those having access to primary care are more likely to use public healthcare services as compared to private ones; this is in line with the finding of Lahana, Pappa, and Niakas, (2011) that emphasised on the importance of education for health service utilisation. Rolle and Onwnma (2019) investigated the factors that influence Tuberculosis (TB) patients' choice of service providers, using data from Nigeria's most current Demographic and Health Survey and the polychotomous logistic regression equation. The study found that a TB patient's choice of healthcare providers is influenced by their education, age, and geographical location. People with more education were more likely to seek expert help. Again, the survey found that more patients use public hospitals than any other healthcare provider, supporting Mulhiri's (2003) results that public health facilities are preferred over private healthcare facilities.

3. Methodology

Kontagora, a town in the northwest region of Niger state, Nigeria, covers an area of 76,363 square kilometers with a total population of 151,598, according to the recent population census of 2006 (NPC, 2006). Circumscribe the area between longitude and

latitude of 10.407°N, and 5.4699°E, respectively. The local government shares boundaries with Kaduna and Sokoto States. The town is a collecting point for cotton and peanuts (groundnuts). In addition to these cash crops, Kontagora has a considerable trade in millet, sorghum, beans, tobacco, and cowpea. The distance between the town to Sokoto is estimated at 296 km and 148km to Minna, the state's capital. Kontagora is the largest Local Government Area in Niger State only after the State Capital Minna. This large percentage of the population is one of the reasons for selecting the study area.

According to the Population Census of 2006, Kontagora has a population size of 151,968, while the current population is projected to be around 213,500 putting into consideration the 2.5% population growth rate (National Population Commission [NPC], 2006; 2016). The sample size was calculated using the Taro Yamane formulae and 100 respondents were selected for the study. The respondents were selected using a simple random sampling technique. Primary data was obtained through a questionnaire issued in four wards of Kontagora town. The MEASURE DHS Programme generated model questions that were used to create the content of these surveys. The model questionnaires were modified to meet the study area requirement, and the questions were created with the study's aims in mind. The variables' definition and measurement are presented in Table 1 below.

Table 1: Variables Measurements and Defination

Variables	Defination	A priori
Healthcare Choice (Healthcarechoice)	Dependent Variable (DV)	
Gender (gender)	Independent Variable (IV)	either +ve or -ve
Age (age)	Independent Variable (IV)	either +ve or -ve
marital status (maritalstatus)	Independent Variable (IV)	either +ve or -ve
Religion (religion)	Independent Variable (IV)	either +ve or -ve
Education (education)	Independent Variable (IV)	high tendency +ve
Occupation (occupation)	Independent Variable (IV)	high tendency +ve
household size (householdsize)	Independent Variable (IV)	either +ve or -ve
Income (income)	Independent Variable (IV)	only +ve
reason for choice (reasonforchoice)	Independent Variable (IV)	either +ve or -ve

The data was further examined using the multiple regression method of analysis. The empirical model for the survey is presented as follows:

$$\alpha \text{Healthcarechoice} = f(H_1 + H_2 + \dots + H_n + e_u) \dots \dots \dots 1$$

$$= H_0 + H_1 \text{gender} + H_2 \text{age} + H_3 \text{maritalstatus} + H_4 \text{religion} + H_5 \text{education} + H_6 \text{occupatio} \\ n + H_7 \text{householdsize} + H_8 \text{income} + H_9 \text{reasonforchoice} + e \dots \dots \dots 2$$

4. Results:

Table 2 reveals the socioeconomic characteristics of the respondents in the study area. Table 2 indicates that about 57% of the respondents are male, while only 43% are female. The average age among the respondents is 42 years, which suggests that most of the respondents are within the active, productive period, and their ability to engage in income generate activities is likely high, especially in farming activities. This is in line with the findings of Mukhtar (2020a). Age classification indicates that about 8.7% of the respondents are below the age of 20 years, while about 22.8% are within the age bracket of 21-29 years. About 29.3% are within the age of 30-39 years, about 14.1% are within the age of 40-49 years, 8.7% are within the age of 50-59 years, 6.5% are within the age of 50-59 years, 4.3% are within the age of 70-79, 3.3% are within the age of 80-89 while 2.2% are within the age of 90-100 years.

Table 2: Socio-demographics of Respondents

Socio Demographic Factor	Frequency	Percent	Cumulative Percent
<i>Gender</i>			
Male	52	56.5	56.5
Female	40	43.5	100.0
<i>Age Classification</i>			
20-Below	8	8.7	8.7
21-29 Years	21	22.8	31.5
30-39 Years	27	29.3	60.9
40-49 Years	13	14.1	75.0
50-59 Years	8	8.7	83.7
60-Above	15	17.3	100.0
<i>Marital Status</i>			
Single	32	34.8	34.8
Married	49	53.3	88.1
Divorced	5	5.4	93.5
Widowed	6	6.5	100.0
<i>Religion</i>			
Islam	45	48.9	48.9
Christianity	47	51.1	100.0
<i>Educational Qualification</i>			
Non-Formal Education	11	12.0	12.0
Primary	6	6.5	18.5
SSCE	33	35.9	54.3
ND/HND/B.sc	42	45.7	100.0
<i>Occupation</i>			
Student	20	21.7	21.7
Artisan	4	4.3	26.1
Farming	14	15.2	41.3
Civil Servant	32	34.8	76.1
Business	22	23.9	100.0
<i>Household Size</i>			
<i>Average Household Size</i>			
	7		
1-3	14	15.4	15.4
4-6	39	43.4	58.8
7-9	22	24.6	83.4
10-above	15	16.6	100.0
<i>Income</i>			
#20,000-Below	23	25.5	25.5
#21,000-#40,000	11	12.2	37.7
#41,000-#60,000	30	33.3	71
#61,000-above	26	29	100

Note: Central Bank of Nigeria (CBN) exchange rate of US\$/# averaging @ #411

Source: Field Survey

Regarding marital status, the above table shows that 34.8% of the respondents are single, 53.3% are married, 5.4% are divorced, and 6.5 % are widowed. In terms of religion, 48.9% are Muslim, while 51.1% representing 47 respondents are Christians. The average household size from Table 2 indicates that each household has an average of seven (7) individuals. This finding is in line with the outcome of research by several authors that showed that the average household size in Niger State is 5-10 individuals per household (Mukhtar, 2020b). In terms of household classification, the majority or about 43% of the respondents are within the family size of 4-6 individuals, about 25% of the household respondents have a family size of 7-9 individuals, while 16% and 17%

have a household family size of 1-3 individuals and 10-above respectively. Table 2 further reveals that regarding educational qualifications, about 12% and 6.5% possess non-formal education and primary school first leaving certificate, respectively, and about 35.9% of the respondents are SSCE holders. In comparison, 45.6% of respondents hold ND/HND/BSC. This indicates that majority of the respondents have higher qualifications in terms of ND/HND or BSc, and as such, informed judgments in terms of healthcare choice among the respondents may likely increase.

In terms of occupation indication, Table 2 reveals that 21.7%, 4.3%, 15.2%, and 23.9% are students, artisans, farmers, civil servants, and business people, respectively. This indicates that apart from the 24% of the respondents that are students, the majority or about 76% of the respondents have a means of livelihood and can take responsibility for making payment of their healthcare expenses when the need arises. The average monthly respondents' income from Table 2 is #58,250 (US\$141.71). This is clearly above the average monthly minimum salary of #18,000 (US\$43.80) in the State. However, considering the average family size, further analysis reveals that each household member will depend on less than US\$1. This is also in line with the World Bank projection that the majority of the population in Nigeria are poor and living on less than US\$1 daily (World Bank, 2020; Mukhtar, 2020c; Mukhtar, Kamaruddin & Applanaidu, 2018a; Mukhtar et al., 2018b). The condition may likely deteriorate as the impact of COVID-19 is presently taking a toll on the country's economic situation (World Bank, 2020; Mukhtar, 2020a; 2020b). Income classification from Table 2 reveals that the majority or about 33% of the respondents are within the income classification of #41,000-#60,000, and 29% are within #61,000-above income classification, while about 26% and 12% of the respondents are within the income bracket of #20,000-below and #21,000-#40,000 income classification respectively. The importance of socioeconomic variables in driving healthcare service choice can't be overemphasized, as suggested by the work of AU and Ignatus (2014).

Statistical evidence reveals that the majority or about 46% of respondents use public healthcare services, and 31% use private healthcare services. This finding contradicts Abodunrin, Bamidele, Olugbenga, and Parakoyi (2010) that suggested that respondents' selection of more private healthcare services is higher than that of public healthcare services in the same region of North Central Nigeria. The finding conforms with the work of Abiodun and Olu-Abiodun (2014), that discover the use of public healthcare services in the Northwest region of Nigeria to be 19% and 4% of the respondents use traditional and self-medication healthcare services, respectively. The majority of the respondents or about 35% attributed such usage to the quality of services received during visitation as the reason for such choice, 28% of the respondents stated that cost is the reason for the selection of healthcare service used, 14% each attributed the reason for the choice as a result of the neatness of the facilities and effectiveness of the treatments. At the same time, 4% and 5% attributed the usage to the waiting time and staff attitude toward the respondents, respectively. A study conducted by Exworthy (2010); Johnson, Sahnatz, Kelsey, and Ohannessian (2005) all suggested that cost, the effectiveness of treatment, accessibility, and waiting time are essential drivers of healthcare service choice in any society.

Empirical evidence further reveals that most respondents or about 62% agreed that the cost of government-owned healthcare facilities is cheaper than the private healthcare service. Regarding the accessibility of service, 39% and 33% of the respondents agreed that service accessibility is highly and moderately accessible, respectively. In

comparison, about 15% agreed that the service is only accessible to the wealthy and well-known personalities in the study area. Only 6% agreed that in terms of accessibility, poor and vulnerable in the study area have no access to healthcare services. About 59% of the respondents also agreed that waiting time in public healthcare services is longer than in private healthcare services. In contrast, regarding staff attitude to work, about 68% of the respondents agreed that staff of public healthcare services were more insulting than private healthcare services.

Table 3 reveals the regression analysis of the variables involved in the research. The table also shows that out of the nine (9) variables, only five (5) variables are statistically significant. The rest are not statistically substantial but carry coefficients that indicate the direction of flows of the variables.

Table 3: Regression Result for the Factors Determining Healthcare Choice in Kontagora.

Variables	Coefficient	P-Value
Gender	-0.2463	0.037**
Age	-0.0006	0.689
marital status	0.1640	0.007***
Religion	0.6224	0.000***
Education	0.4416	0.000***
Occupation	-0.0253	0.634
household size	0.0158	0.309
Income	-1.6300	0.216
reason for choice	0.1180	0.141*

Note: *, **, *** mean statistically significant at less than or equal to 10%, 5% & 1% respectively.

Source: Field Survey

Table 3 shows that the coefficient of gender is (0.235), indicating a negative effect between the use of healthcare and gender; that is, being a male respondent has a negative impact on the choice of healthcare service used than being a female respondent. The variable is statistically significant since it has a p-value of less than 5%. Table 3 also reveals that the age coefficient is (-0.005), indicating a negative effect between healthcare service used and age; the variable is not statistically significant as the p-value is greater than 10%. The table reveals that the coefficient of marital status is 0.164, indicating a positive relationship between the use of healthcare and marital status; the variable is statistically significant with a p-value of 0.007. This also means that being married has a significant influence on the choice of healthcare service than being unmarried. The table further suggests that religion has a coefficient of 0.622, signifying a positive relationship between religion and the use of healthcare, and is statistically significant with a p-value of 0.000, less than 1%. This means religion has a significant influence in determining the choice of healthcare service among the respondents in Kontagora.

Table 3 reveals that the coefficient of education is 0.4444 signifying a positive effect between the level of education of respondents and the use of healthcare services; the variable is statistically significant as its p-value is less than 0.001. The occupation coefficient is shown to be (0.025), indicating a negative effect between occupation and use of healthcare services. This outcome is against the a priori, which suggested a positive relationship. The variable is not statistically significant since its p-value is greater than 10%. The coefficient of household size is 0.157 indicating a positive relationship between household size and use of healthcare. This means an additional

number of households size increase the choice of healthcare services. The variable is statistically insignificant with a p-value more significant than 10%. Table 3 shows that the coefficient of income is -1.63 indicating a negative relationship between income and use of healthcare. This means that a decrease in income can influence the choice of healthcare service. The variable is not statistically significant since it has a p-value greater than 10%. The table also shows that the coefficient of reasons for the choice of healthcare which include cost, quality service, effective treatment, the attitude of workers, waiting time, and nearness of facility, is 0.118 and has a positive effect on healthcare used. The variable is statistically significant since it has a p-value approximated to be about 10%.

5. Conclusion and Recommendations

Choice of healthcare providing facility is an important decision that involves the interplay of several factors. Unlike decision-making for other commodities, the decision-making process involved in the choice of healthcare providing facility is determined by factors external to the clients, such as the quality of services provided by the healthcare facilities. The cost of the facility, among other factors, must be considered by managers of health institutions when decisions to improve health facility services are to be made.

Based on the above findings of the study, the study recommends that the government should make health insurance available to people by subsidizing health bills and thus reducing the financial burden on individuals. Government should improve capacity building for public hospitals by equipping the hospitals with updated armamentarium to meet the current health needs of the people. The study also recommends that public hospitals should reduce the bureaucratic process to the barest minimum to avoid delays in delivering medical services since the waiting time is an essential factor influencing the use of healthcare facilities, especially in government-owned hospitals. Policy-makers should strengthen the healthcare service programs by incorporating health education within the existing curriculum. The government and stakeholders should significantly increase community-based health education and awareness creation and improve access to information through public discussions and local media. Priority should be given to improving the living conditions of people beyond the poverty level to enhance better healthy living.

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