

Understanding Rural Healthcare Accessibility and Utilization in Nigeria; From a Gender point of View

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Abstract. This study examined the role of gender in healthcare accessibility in rural settings in Nigeria. The objectives were: (i) to understand the state of rural healthcare delivery at the study area (ii) to determine the role of gender in healthcare accessibility and (iii) to investigate the factors that influence healthcare access and utility of women in particular. Using stratified random sampling, the study employed data from 69 health centers, 45 health workers and 44 health users across the eleven wards in the LGA. The data collected were organized using simple percentages and tabulation, while analyses were carried out using Students' T-test statistics, Pearson's moment correlation and regression. The study reveals that (i) local government funded healthcare facilities accounted for only 38.67%, while 61.67% were privately owned. (ii) Students' T-test analysis showed that female health users had a mean score of 18.182% as against male health users 17.370% (iii) Income, more than marital status, distance, age, gender and education determines women's access and utilization of healthcare in the study area.

Keywords: Women, Income, Health inequality, Community health.

1 Introduction

Health is central to community well-being as well as to personal welfare. It has a strong influence on people's earning capacity and productivity; it affects educational performance and thus, determines employment prospects; and it is fundamental to people's ability to enjoy and appreciate other aspects of life [1]. Access to and uses of facilities are important issues in health policy [2]. Lack of access and use may however result from economic barriers (poverty), supply and distributional barriers-services not appropriate or not nearby), socio-cultural barriers (problem of understanding between stakeholders i.e. providers and clients of different background) and socio-economic barriers (gender and sex differentials, religious beliefs etc.) [2]. Gender strongly impacts all characteristics of health and wellbeing. Social and culturally assembled gender customs decide roles and opportunities for all people, influencing various determinants of health, health risk behaviours, and access to and quality of health and social services [3]. Consequently, limiting and dangerous gender norms, values, and expectations bring about inequalities in health and wellbeing that expands across the life course and across generations [4]. For these reasons, gender equality is an explicit goal of the 2030 Agenda for

Sustainable Development. This has prompted attempts to investigate gender equality, and an increasing number of available indicators to identify where inequalities exist and to inform policy investments.

Health inequality refers to the difference or bias in health or in the most significant impacts on health that could potentially be influenced by policies; it is a disparity in which disadvantaged groups (such as the poor, racial/ethnic minorities, women or other) generate worse health outcomes or face a more serious health risk than more advantaged groups [5]. These health inequalities represent unfair differences in the health status of the population and are determined by many social, socioeconomic and environmental factors that interact with each other. More and more emphasis is placed on social determinants that are the basis of health deference, the importance of social determinants is also underlined by international organizations such as the WHO and the OECD that consider the health inequalities to be a serious problem [6]. Similarly, there are social and cultural constraints that are peculiar to women, which affect their accessibility and use of healthcare, and in turn their health status, which are worthy of separate exploration [7]. This study argues for the place of the female gender in the utilization of healthcare. It singles out gender so as to be able to evaluate the level to which differences occasioned by sex could be factored into a pattern of observed health care utilization.

This study is expected to add to the growing literature on gender studies not only in Nigeria but other parts of the world where similar conditions exist. The case study will also add perspective to the micro-scale analysis of the relationship between gender and healthcare utilization. The study will also illustrate the special diversity of utilization of healthcare facilities and the extent of gender gaps that exists in rural areas. It will enable the various levels of government (i.e. Federal, State and Local) to recognize women's healthcare as a legitimate human right. It will assist policy makers in addressing these issues of gender by exploring interventions in healthcare programmes. The study will equally help to create awareness for the various levels of government so as to be able to establish strict and aggressive training programmes for females to upgrade their literacy levels and educational attainment

2 Materials and Methods

The main text should be written using Times New Roman, 10pt, fully justified. Italics can be used for emphasis and bold typeset should be avoided. This study has utilized both primary and secondary data; the primary data was mainly from sample surveys through questionnaires administered to the respondents. Specifically, two sets of questionnaires were designed to collect information based on the research objectives and required data.

The first was the Health workers' questionnaire, which consisted of two sections A and B. Section A contained 3 items on demographic characteristics of the respondents. Section B contained 53 items, sub divided into 4 units i.e. type of health center where the respondent works, availability of health personnel working in the centre and services mostly patronized by the health users. Items on section B of the questionnaire were drawn after critical review of relevant Literature and the objectives of the study. This questionnaire was administered to 45 randomly selected health workers in the study area to elicit information on spatial distribution, availability of human resources (health personnel, services, facilities put in place). The second source of primary data was through health users' questionnaire which was also divided into two sections A and B. Section A contained Systems on demographic characteristics of the respondents. Section B contained 45 items, subdivided into 3 units i.e. socio economic

background of respondents (health user), accessibility of health users to health care facilities and utilization of health care by the users. Items on section B of the questionnaire were drawn after a review of Literature and the research objectives as well. This questionnaire was administered to 440 (health users) respondents in their various homes and working places. The secondary data were in the form of published and unpublished documents including records available to health workers from the health department of Baruten LGA as the coordinating unit of these facilities.

2.1 Sampling Technique

A reconnaissance survey was conducted by the researcher. This survey, coupled with the information gathered from the Local government Area Health department, revealed that a total of seventy (70) healthcare centers existed. This number includes the privately owned healthcare centres. Out of these 70 healthcare centers, 16 were privately owned while the remaining 54 were government owned booth local and state governments.

To select respondents for the study, the study area (Baruten LGA) was stratified into its eleven wards with a representative sample of health users, and health workers identified from each ward (5% of Health users/health workers).

Table 1. Distribution of sampled Health workers

Type of Health facility	Samped Health workers
Cottage	5
Basic	10
General hospitals	20
Clinics	10
Total	45

Source: Author's survey

In each of the wards, respondents (Health users) were randomly selected irrespective of their gender, age distribution, marital status, literacy level and occupational distribution. In all, 181 male and 259 female health users were sampled. Furthermore, purposive sampling was employed to pick 45 health workers in the study area i.e. 5,10,20 and 10 were randomly picked from cottage, Basic, General hospitals and clinics respectively. In all, a total of 45 health workers and 440 health users were selected to obtain primary data for this study.

2.2 Methodology

Descriptive statistical techniques involving tabulation and simple percentages were employed. These were used in describing personal characteristics of the respondents. Multiple regression was used to determine the factors accounting for women's access and use of health care in the study area. This inferential statistical method, valuable for its explanatory and predictive capacities, was used to identify significant variables essential for the ability of women to access and use healthcare [5]. In selecting variables, efforts were made to comply with the fundamental

assumptions of regression models, particularly the additive effect of independent variables, the presence of non collinearity and measurement at intervals. For this study, the model is

$$Y = a + b_{1 \times 1} + b_{2 \times 2} + \dots + b_{10 \times 10} + e \quad (1)$$

Where Y = women's accessibility and utilization of health care, X₁ = Gender, X₂ = Age distribution, X₃= Marital status, X₄= Population per household, X₅ = Literacy level, X₆= Occupation, X₇= Monthly income, X₈= Distance to health facility, X₉= Quality of care in terms of availability of drugs, attitude of health staff, condition of health facilities and opening hours, X₁₀= Nature of illness, e = error term. In addition, an independent t-test was used to determine the gender difference that may exist in the accessibility and utilization of healthcare facilities in Baruten LGA, The independent t-test helped to determine whether the difference between means for the two set of scores is significant

3 Results

3.1 Availability of healthcare services equipments

In order to determine the availability of the above mentioned services in health institutions in Baruten Local Government Area, responses of the health personnel to the questionnaire administered were collated as revealed in table 3. The table shows that HIV and AIDS clinics, medical laboratory facilities, family planning services, children immunization programmes, roll back malaria services, ante and post natal services, respiratory tract infection, general infection tract and medical illness services were provided at different degrees. Other services that were inadequately or not provided include, essential drugs physiotherapy, eye clinic, X-Ray services, urinary tract infection and dental services. This shows that primary basic health services were provided in Baruten Local Government Area though, not in all health institutions in the study area.

Table 3. Availability of Healthcare facilities in Baruten LGA

Services	Available	Not Available
Essential Drugs	26(57.7%)	19(42.3%)
X-Ray facilities	6(13.3%)	39(86.7%)
Physiotherapy	-	45(100%)
Eye clinic	3(6.7%)	42(93.3%)
HIV/AIDS Clinic	42(93.3%)	3(6.7%)
Medical Lab. Facilities	45(100%)	-
Family Planning Service	45(100%)	-
Children Immunization Programme	45(100%)	-
Roll Back Malaria Services	45(100%)	-
Ante & Post Natal Services	45(100%)	-
Urinary Tract Infection Services	10(22.2%)	35(77.8%)
Respiratory Tract Infection Services	39(86.7%)	6(13.3%)
Dental Clinic	10(22.2%)	35(77.8%)
GI Services	45(100%)	-
Mental Illness	29(64.4%)	10(35.6%)

Source: Baruten LGA Health Department

3.2 Gender differences in the accessibility and utilization of healthcare facilities

In order to determine the level of accessibility and utilization of healthcare facilities on the basis of gender in Baruten LGA, responses of the health users to questionnaire were collated and subjected to inferential statistics.

Table 4. t-test analysis showing gender differences in accessibility and utilization of health care facilities

	Variables	No	Mean	Std	df	t-calc	t-crit
Accessibility	Male	181	17.370	0.804	438	14.092	1.960
	Female	259	18.182	0.386			
Utilization	Male	181	13.660	0.877	438	27.92	1.980
	Female	259	16.271	1.079			

Source: Field Survey, $P < 0.05$

Table 5 shows the calculated t-values of 14.092 and 27.924 for accessibility and utilization of healthcare facilities respectively. The critical t-value is 1.960 with 438 degree of freedom and at level of significance 0.05 for both. The table clearly shows that the calculated t-value is greater than the critical t-value and therefore, can be concluded that a significant difference exists between male and female in the access and utilization of healthcare facilities in Baruten L.G.A. These differences are in favour of female health users with the mean scores of 18.182 and 16.271 greater than the male counterpart 17.370 and 13.660 in both accessibility and utilization respectively. This implies that women, most likely with their children/wards, patronized and made use of healthcare facilities than their men counterparts [8].

3.3 Factors that influence women's accessibility and utilization of healthcare facilities

In order to identify the factors which mostly control women's accessibility to and utilization of healthcare facilities, demographic characteristics such as gender, age, marital status, qualifications, occupation, population of household and income of the health users were considered as possible factors that could control women's accessibility and utilization of healthcare facilities. Data collected in respect of these characteristics and responses to accessibility and utilization of healthcare facilities were collated and subjected to simple multiple regression analysis as shown in table 5.

Table 5 reveals that the calculated f-value (63.103) and (214.283) is greater than the critical f-value (2.01) with 7 degrees of freedom (regression variables), and 432 degree of freedom (Residuals) respectively and at level of significance 0.05. Since the calculated f-value is greater than the critical f-value, it shows that a significant relationship exists among gender, age, marital status, qualifications, occupation, population per household, income of the healthcare users, accessibility and utilization of healthcare facilities in the study area.

Table 5. Multiple regression showing factors controlling women accessibility to and utilization of healthcare facilities

Status	Variables	SS	df	Ms	Cal f-value	Critical f-value	Adjusted RZ
Accessibility of healthcare facilities	Regression	11.3621	7	16.236	63.103	2.01	0.711
	Residual	111.177	432	0.257			
	Total	224.798	439				
Utilization of healthcare facilities	Regression	880.346	7	125.764	214.283	2.01	0.881
	Residual	253.346	432	0.587			
	Total	1133.88	439				

9

SPSS version 16.0

Table 5 also shows that all factors (gender, age, marital status, literacy level, occupation, population per household, income of the health users) together explained 71.1%, and 88.1% of the variability in accessibility to, and utilization of healthcare facilities respectively. This is as indicated by R² values of 0.711 and 0.881 for accessibility and utilization respectively.

Table 6. Multiple regression coefficients of variables affecting women accessibility to and utilization of healthcare facilities

Variables	Accessibility	Utilization
X1= Gen =Beta scores in gender	.023	.332
X2= Age= Beta score in age distribution	.166	.350
X3= ms = Beta score in marital status	.218	.470
X4= pop= Beta score in population per household	.020	.017
X5 = Qua= Beta score in Qualifications	.160	.415
X6= Occ= Beta score in Occupations	.163	.109
X7 = MI = Beta score in Monthly Income	.312	.617
X8 = Dis = Beta weight in Distance to health facilities	.153	.278

SPSS version 16.0

Substitute the equation:

$$\text{Accessibility} \rightarrow Y = 15.985 + 0.023\text{gen} + 0.166\text{age} + 0.218\text{ms} + 0.020\text{pop} + 0.16\text{qua} + 0.163\text{occ} + 0.312\text{mi} + 0.153\text{dis}$$

$$\text{Utilization} \rightarrow Y = 20.07 + 0.332\text{gen} + 0.330\text{age} + 0.470\text{ms} + 0.017\text{pop} + 0.415\text{qua} + 0.109\text{occ} + 0.617\text{mi} + 0.278\text{dis}$$

From the above equation it could be seen that monthly income (mi) has the best impact on women accessibility to, and utilization of healthcare, such that for every unit increase in the monthly income of respondents, their level of access to, and utilization of healthcare facilities will be affected by a positive factor of 0.312 and 0.617 respectively. This could imply that money plays a significant role in accessing and utilizing healthcare facilities [9].

4 Discussions

Critical among the findings of this study is the fact there are pertinent gaps revealed as regards availability of healthcare services. This is evident in the fact that there is a maldistribution of health services and facilities. Ideally there should be a greater spread of healthcare facilities in order to increase the overall availability and accessibility per health users [10]. Our study revealed that there are either none or limited healthcare services in the following areas; Physiotherapy, X-ray facilities, Eye clinic, Urinary tract infection and Dentistry. However, this could pose as a serious threat to the health of individuals should they have emergencies in any of the service areas listed above. Such could lead to preventable death/disability [11]. Furthermore, existing gaps in the number of qualified professionals (medical personnel) underscores the threat of lack of adequate healthcare services. This study revealed that the rural areas lack (none existent in some instances) Dentist, Medical doctors, Pharmacists, Ophthalmologists, X-ray technicians, Microbiologists, and Optical officers (Optometrists). This further indicates the mal-distribution within rural areas in that there are often areas of deprivation and relative well-being within the same region in terms of physical provision of healthcare and health services. This gap was also illustrated by [12] in which very distinct variations in spatial provision were found between essentially rural local government areas. The findings equally showed a high relationship between socio-economic variables and accessibility/utilization of healthcare services. This aligns with the findings of [13]. He identified education, age and gender, as factors in health service utilization. He indicated that children under age ten never took part in visits to traditional healers. Most visitors were between twenty-one and forty years and were all women. They were less educated compared "to the general population in the area.

5 Conclusion

Rural healthcare/public healthcare has become a long standing issue in health and healthcare delivery since the Almo - At Declaration in 1978. However, accessibility to, and utilization of rural health care require not just development of indicators and measurement of the problems, but more importantly, a policy, which puts access and use on the agenda and encourages decision makers on economic matters/affairs to consider gender equity in access and use implications of their policies. The health sectors (local, state and national) have an important advocacy role to play here, but needs the relevant information and analytical skills to present it effectively. It must also be noted that rural healthcare facilities and services are neglected by the previous Federal and State Government and they are poorly staffed.

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