ISSN: 2476-8642 (Print)
ISSN: 2536-6149 (Online)
www.annalsofhealthresearch.com
African Index Medicus, Crossref, Index Copernicus
& Google Scholar
C.O.P.E & Directory of Open Access Journals

Annals of Health Research

VOLUME 7
NO. 4
OCT. - DEC., 2021

IN THIS ISSUE

PUBLISHED BY THE MEDICAL
AND DENTAL CONSULTANTS ASSOCIATION
OF NIGERIA, OOUTH, SAGAMU, NIGERIA.
www.mdcan.oouth.org.ng

Annals of Health Research
Volume 7, Issue No 4: 374-390
December 2021
doi:10.30442/ahr.0704-06-148

ORIGINAL RESEARCH

Predictors of Healthcare-Seeking Behaviour, Health Services Access and Utilization in Ajebo Community, South-West, Nigeria

Ahmed AK, Imhonopi GB, Fasiku MM, Ahmed A, Osinubi MO, Soyannwo T*

Department of Community Medicine and Primary Care, Federal Medical Centre, Abeokuta. Ogun State, Nigeria

***Correspondence: Dr T. Soyannwo, Department of Community Medicine and Primary Care, Federal Medical Centre, Abeokuta, Ogun State Nigeria. E-mail: ojot40@yahoo.com; ORCID – https://orcid.org/0000-0002-1793-151X.**

Abstract

Background: Health is a fundamental requirement for living a socially and economically productive life. Poor health inflicts great hardships on households, including debilitation, substantial monetary expenditures, loss of productivity and sometimes, death.

Objectives: To describe healthcare-seeking behaviour, access to health services and utilisation, and their predictors in a southwestern Nigerian community.

Methods: A descriptive, cross-sectional study was conducted in Ajebo community, Obafemi/Owode Local Government Area in Ogun State. A total of 420 respondents were studied using an interviewer-administered questionnaire to collect quantitative data.

Results: More than half (54.0%) of the respondents had access to public health facilities, 41.7% had access to private health facilities, while patent medicine stores were accessed by 4.3% of the respondents. Out of the 249 (59.3%) who were ill in the preceding three months, 92.4% of them sought healthcare. More males utilized government-owned health services s than females ($\chi^2 = 3.878$, p = 0.049). More than half (56.4%) travelled >10 minutes to access healthcare services. Lack of formal education was not a hindrance to seeking healthcare (OR = 31.392, p = 0.003, CI = 3.323-2.347). Income earning <30,000 Naira was the strongest predictor of healthcare utilization (OR = 3.304, p =0.001, 95% CI = 2.007-5.441). Education with OR = 31.392 (p = 0.003, 95% CI = 3.323-96.570) was the strongest predictor of healthcare-seeking behaviour.

Conclusion: Healthcare-seeking behaviour was not limited by lack of formal education. The utilisation of public health facilities was high among the respondents. State of employment and income were strong predictors of healthcare utilisation in Ajebo community.

Keywords: Educational attainment, Healthcare spending, Patent Medicine Store, Primary Health Care, Rural population.

Introduction

Health is a fundamental requirement for a socially and economically productive life. [1] Poor health inflicts great hardships on households, including debilitation, substantial monetary expenditures, loss of productivity and sometimes, death. [1] The health status of adults

affects their ability to work and thus, underpins the household's welfare, including the children's development. [1, 2] Poor health affects agricultural production. Treatable conditions often go untreated because of a lack of access to healthcare. Development in all its forms is only possible when there is access to healthcare services and, in turn, its effective utilisation by individuals. [2]

Healthcare seeking behaviour, which is a sequence of remedial actions to address perceived ill health, is a complex, dynamic and multidimensional process that is not only influenced by the individual but by a broader interaction between the individual, the household and the community within the constraints of existing factors such as affordability, availability and accessibility. [3] Healthcare-seeking behaviour involves a combination of different responses such as seeking traditional care, spiritual care, drug store services, private and public orthodox care. These differ over time, based on opportunity and circumstance regarding the type of care individuals seek for themselves and their family members. [4] This behaviour of serial or simultaneous engagements with different healthcare services is probably due to the belief that one of the services may provide answers about the cause of the disease or provide some form of relief or cure. [4]

Access to healthcare services is a multidimensional process involving the quality of care, geographical accessibility, availability of the correct type of care for those in need, financial accessibility, and acceptability of service. [5] The utilisation of healthcare services is related to the availability, quality and cost of services, socio-economic structure, and personal characteristics of the users. [6] Access to healthcare is severely limited among the Nigerian rural populations, which have been reported to account for greater than 67% of the entire Nigerian population. [7] The inability of the consumers to pay for the services and healthcare provision that is far from equitable has been identified amongst other factors responsible for this limitation. [7]

The utilisation of health services serves to improve the population's health status. Studies have shown that health facilities alone are not enough to guarantee their use as other socio-economic factors could influence access and, thus, utilisation. Low health facility utilisation is often a reflection of the poor quality of services and the poor attitude of the staff. [8, 9 - 11] In Nigeria, access to health care in rural areas is confounded by problems such as insufficient health infrastructure, the presence of chronic diseases and disabilities, socio-economic and physical barriers, and shortage of health workers. [12] Over the years, healthcare services and facilities in Ogun State of Nigeria have not achieved all its objectives of ensuring everybody has access to adequate health care services at affordable costs. [1] The provision of community-based health services by Community Health Extension Workers (CHEWs) is severely lacking, with very few or no CHEWs spending 80% of their time in the communities, mainly because of challenges with logistics. [13] Most primary health facilities across the country are poorly equipped, with only a quarter of health facilities having more than 25% of the minimum equipment package. [13] Many of these facilities are in deplorable conditions, mainly due to the poor state and local government funding. [13, 14] There is also the issue of out-of-pocket expenditure, which exposes the poor to catastrophic health spending, traps them in poverty, and aggravates the poverty of others. [15] There is evidence that the consumers choose the facilities where access is easier, with a flexible payment system. In most farming communities like Ajebo, a rural community in Ogun State, most farmers used the home-based care of self-medication during ill health. That implies purchasing and taking drugs

without being prescribed by a qualified medical practitioner. [16-18]

The Nigerian healthcare system is founded on a tripod of Primary Health Care (PHC), Secondary Health Care and Tertiary Health Care, complying with global recommendations for optimal health care provision. Despite this organised system, available evidence suggests considerable under-utilisation of available PHC facilities in the country's rural areas. [19, 20] For instance, the 2018 Nigeria National Demographic Health Survey portrayed the extent of under-utilisation of PHC services in the nation in the abysmally higher under-5 mortality rate in rural areas compared to urban areas (157 and 92 deaths per 1,000 live births, respectively). The perinatal mortality rate was also higher in rural areas than in urban areas (52 versus 45 deaths per 1,000 pregnancies). [21] The estimated maternal mortality ratio was 512 deaths per 100,000 live births (with a 95% confidence interval of 447 to 578). Therefore, for every 1,000 live births in Nigeria, approximately five women died during pregnancy, during childbirth, or within two months of delivery. [21] Urban women (84%) were more likely to receive antenatal care from a skilled provider than rural women (56%). Access to quality ANC services during pregnancy can help prevent maternal deaths. [19]

The Primary Health Care Centre (PHCC) in Ajebo community is one of the outreach facilities under the supervision of the Department of Community Medicine and Primary Care, Federal Medical Centre, Abeokuta, Ogun State. This study aimed to highlight healthcare-seeking behaviour, access and utilisation of healthcare services and their predictors among the residents of Ajebo community. This was intended to generate evidence-based information that may assist policymakers and health management teams in understanding the challenges of accessing and utilising healthcare services in this rural community.

Methods

Study area

This research was conducted in Ajebo community. Ajebo is one of the 12 communities under Obafemi/Owode Local Government Area (LGA) of Ogun State. The LGA is located within the geographical coordinates of 6^0 57^{i}N and 3^0 30^{i}E, on 1,410 km (540 sq mi). The total population was 228,851 according to the 2006 census projected to 345 565 population at 3.0% growth rate by 2019. [21] However, the only available evidence of population figure derived from the state office of National Population Commission was 2,214 as at 1991 population figures.[21] Therefore, using a population growth rate of 2.5% for rural dwellers, the projected population for Ajebo community and its environs would be 11,859 people by 2020. [21]

The people of Ajebo community are mostly Egbas. Traditional rulers predominantly govern the traditional institution of the people. The community has one PHC facility constructed around 2006 but has been under-utilised. The building was dilapidated and seldom used for service delivery. The community has a patent medicine store and several traditional health stores. There is also a privately-owned, faith-based healthcare facility in the community. The community is host to a tertiary educational centre. The people are predominantly farmers, most of whom engage themselves in farming arable crops. In recent times, however, the people of the area engage themselves in quarry business, artisan work and handcrafts. [20]

Study design

This research was a descriptive and cross-sectional study. Quantitative data collection was done using trained CHEWs, and data were collected using an interviewer-administered questionnaire.

Study population

The study population included heads of households in the selected settlements in Ajebo community. Heads of Households in this study was defined as anybody (male or female) recognised by the household as their head, and such must be above the age of 18 years as at the time of the study. A household in this study was defined as a group of people who share a common relationship and eat from the same pot. The respondents were adults above 18 years who had lived in the community for not less than 18 months.

Sample size determination

The Fishers formula [23] for a population greater than 10,000 was used to determine the sample size:

$$n=\frac{z^2pq}{d^2}$$ [22]

n- Minimum sample size

z -Standard normal deviate set at 1.96, which corresponds to the 95% confidence interval.

p - 58% (0.58) proportion of community with access to health facility in a rural setting obtained from similar study in Ogun State, South-west, Nigeria.[1]

q -1-p (1-0.58) = 0.42

d= degree of accuracy desired = 0.05

n = 374.3

Adjusting for non-response using the formula:

N= n/ (100-r %)

Where r% is the anticipated non-response rate, which is 10%.

N = 415.92.

A total of 420 respondents were sampled.

Sampling Technique

The study population were selected using a multi-stage sampling technique.

Stage 1: Selection of settlement

A simple random sampling technique by balloting without replacement was used in selecting 1/3 of the 52 settlements within the area council.

Stage 2: Selection of Houses

Step 1: Proportional allocation was done for each of the selected settlements to determine the number of respondents from each territory depending on the population of the respective community.

This sampling was carried out using the formula:

Proportional allocation=

(Population of selected communities/settlement)/ Total population X Sample size [22]

Step 2: The houses that made up the community were counted using the existing National Programme on Immunisation numbers. The listing of the houses in the community constituted the sampling frame using a sampling interval.

Stage 3-Selection of Respondents

The first respondent was selected using a simple random technique by balloting without replacement; subsequent selection was made using a systematic sampling technique with a calculated sampling interval for each settlement. Any household which refused to be part of the study was skipped and the next consenting household selected while maintaining the sampling interval until the sample size was completed. When the head of a chosen household cannot be interviewed or declined, the next household was visited until an eligible respondent was found while maintaining the sampling interval.

Data collection

The data were collected using a structured, interviewer-administered questionnaire comprising both open and close-ended questions between March and April 2021. Four research assistants were recruited and trained on data collection techniques for two days. The questionnaire was divided into Section A: for the

socio-demographic characteristics of the respondents; Section B sought information on access and healthcare-seeking behaviour of respondents to availability of health facilities in the community; Section C sought information on the pattern of utilisation of healthcare services; Section D took data on factors that influenced healthcare services utilisation. Access was determined by factors such as awareness and availability of health services, location of health care facilities, transportation, travel time, hours of operation, and cost of medical care. Accessibility refers to the patient's ability to enter the health care system without financial, geographic, or organisational barriers that unnecessarily restrict entry into the system.[18] The scope of utilisation of health services was limited to who did or did not receive medical care and why, and for those who did, how much and what types of care they consumed. [18]

Data Analysis

Data processing was done using Statistical Package for Social Sciences (SPSS) software version 20. [23] Independent variables were summarised using frequencies and percentages. Frequency distribution and other relevant summary statistics were presented as mean, median while the associations between variables were tested using the Chi-Square test. Dependent variables were presented in frequencies and percentages. The level of statistical significance was set at <0.05. Modelling was done using multiple logistic regression with a p-value set at <0.05.

Ethical considerations

Ethical approval for the study was obtained from the Ethical Committee of the Federal Medical Centre, Idi-Aba, Abeokuta, Ogun State. The ethical clearance certificate number was FMCA/470/HRE/11. The research team obtained permission from the District Head of Ajebo Community and the Chairman of Obafemi/Owode Local Government Area. Informed written consent was also obtained from the respondents.

Results

The socio-demographic characteristics of the respondents are presented in Table I. The mean age of the respondents was 51.9±12.2 years. The male respondents constituted more than half (246; 58.6%). Most of them were married (368; 87.6%), mostly in monogamous settings (373; 88.8%). The predominant religious sect was Islam (302; 71.9%), and the majority of the respondents were employed (342; 81.4%), mainly in farming (175; 41.7%). The respondents were predominantly educated to the secondary level (179; 42.6%), but slightly above half of the respondents (214; 51.0%) had a monthly income greater than 30,000 Naira.

Table II depicts respondents' awareness of available health facilities and access to these facilities. All the respondents were aware of at least one health facility in the community. The most visited healthcare facility was the only government-owned health facility (227; 54.0%), followed by the private health facility (175; 41.7%) within the community. The most common reason for the choice of the facility visited was accessibility (131; 31.2%), low cost (103; 24.5%) and availability of health workers (77; 18.3%), respectively. Most respondents (150; 79.8%) accessed the health facility using motorcycles, while 35 (18.6%) used private cars. The travel time to the health facility was >10 minutes for 106 (56.4%) respondents.

Table I: Socio-demographic variables of respondents

Variables	*Frequency (%) n = 420*
Age groups (Years)	
< 30	24 (5.7)
30 – 39	45 (10.7)
40 – 49	88 (21.0)
50 – 59	161 (38.3)
60 – 69	53 (12.6)
≥ 70	49 (11.7)
Mean ± SD **(Years)**	51.9 ± 12.2
Range **(Years)**	20 – 86
Sex	
Male	246 (58.6)
Female	174 (41.4)
Marital Status	
Single	17 (4.0)
Married	368 (87.6)
Divorced	17 (4.0)
Widowed	18 (4.3)
Marriage type	
Monogamy	373 (88.8)
Polygamy	47 (11.2)
Religion	
Islam	302 (71.9)
Christianity	114 (27.1)
Traditional	4 (1.0)
Employment	
Employed	342 (81.4)
Unemployed	56 (13.3)
Retired	22 (5.2)
Occupation	
Farming	175 (41.7)
Trading	95 (22.6)
Civil servant	109 (26.0)
Artisan	38 (9.0)
Others	3 (0.7)
Educational status	
No formal education	118 (28.1)
Primary	91 (21.7)
Secondary	179 (42.6)
Tertiary	32 (7.6)
Number of children	
≤ 4	214 (51.0)
> 4	206 (49.0)
Mean ± SD	4.7 ± 1.8
Income	
< 30,000	206 (49.0)
≥ 30,000	214 (51.0)
Mean ± SD	25,292.8 ± 11,718.1
Number of dependents	
≤ 4	187 (44.5)
> 4	233 (55.5)
Mean ± SD	4.9 ± 2.3

Table III shows that more than half (59.3%) of the respondents took ill within the preceding three months; the majority of these (92.4%) utilised health facilities, and 67.9% of these made use of the government-owned facility while 23.3% utilised the private health facility and 8.8% utilised the services of the patent medicine store. An assessment of the cost behaviour showed that

most respondents (87.9%) paid ≥1000 Naira for the services while 12.1% paid <1000 Naira. The majority of the respondents (77.4%) who sought care believed that the cost was moderate, 10.0% believed the cost was cheap, and 7.6% regarded the services as very expensive. Lack of good road was a significant obstacle to utilisation of healthcare services (63.8%); other barriers include shortage of drugs (20.0%), lack of water supply in the facility (16.4%), lack of government support (15.2%), and lack of standards (12.4%) as shown in Figure 1.

Table II: Awareness and Access to healthcare services among respondents

Variables	*Frequency (%) n = 420*
Awareness of healthcare facility	
Yes	420 (100.0)
No	0 (0.0)
Health facility usually visited when sick	
Government hospital	227 (54.0)
Private clinic	175 (41.7)
Patent medicine store	18 (4.3)
Reasons for choice of facility	
Cheap	103 (24.5)
Accessible	131 (31.2)
Availability	10 (2.4)
Availability of health workers	77 (18.3)
Good attitude of health workers	67 (16.0)
Others	32 (7.6)
Means of transportation to the facility	
Trekking	3 (1.6)
Motorcycle	150 (79.8)
Public transport	0 (0.0)
Private car	35 (18.6)
Travel time to facility	
≤ 10 minutes	82 (43.6)
> 10 minutes	106 (56.4)

In Table IV, good healthcare-seeking behaviour was observed among all the respondents but was better among those aged 50-59 years (106; 46.0%) with statistical significance (p = 0.001). However, male respondents had higher frequencies of healthcare-seeking behaviours during illnesses compared to the females [(120; 52.1%) vs [110; 47.9%); p = 0.007]. The traders and artisans had significantly higher frequencies of healthcare-seeking behaviours than other occupational groups (p = 0.001). Respondents who had more than four children (p = 0.001) and those who had an income of ≥ 30,000 Naira (p = 0.001) were more likely to seek medical attention when ill. In Table V, the respondents aged 50-59 years had more access (101; 44.5%) to the government-owned health facility, those aged 50-59 years equally had more access (60; 34.3%) to private health facility while those between ages 30-39 years had more access (13.3%) to patent medicine store (p = 0.001). Women had better (9.2%) access to patent medicine store compared to their male counterparts (16; 88.9%) (p = 0.001). A higher proportion of employed respondents had more access to the government-owned facility (193; 85.0%) and the private health facility (156; 89.1%) compared to those unemployed, who had more access to patent medicine store (18; 100.0%) (p = 0.001). Civil servants had better access (92; 40.5%) to the government-owned health facility

compared to farmers, who had better access to the private health facility (67; 38.3%), and patent medicine store (18; 100.0%). This relationship was statistically significant (p = 0.001).

Table III: Health facility utilisation among respondents

Variables	*Frequency (%)* *n = 420*
Took ill in the last three months	
Yes	249 (59.3)
No	171 (40.7)
Utilise health facility	n=249
Yes	230 (92.4)
No	19 (7.6)
Type of facility utilised n=230	
Government hospital	156 (67.9)
Private hospital	54 (23.3)
Patent Medicine store	20 (8.8)
Average cost of health services	**n=230**
<1000	28 (12.1)
≥1000	202 (87.9)
Mean ±SD	3253.1±1752.6 (naira)
Cost of treatment	**n =230**
Very expensive	18 (7.6)
Expensive	11 (5.0)
Moderate cost	178 (77.4)
Cheap	23 (10.0)

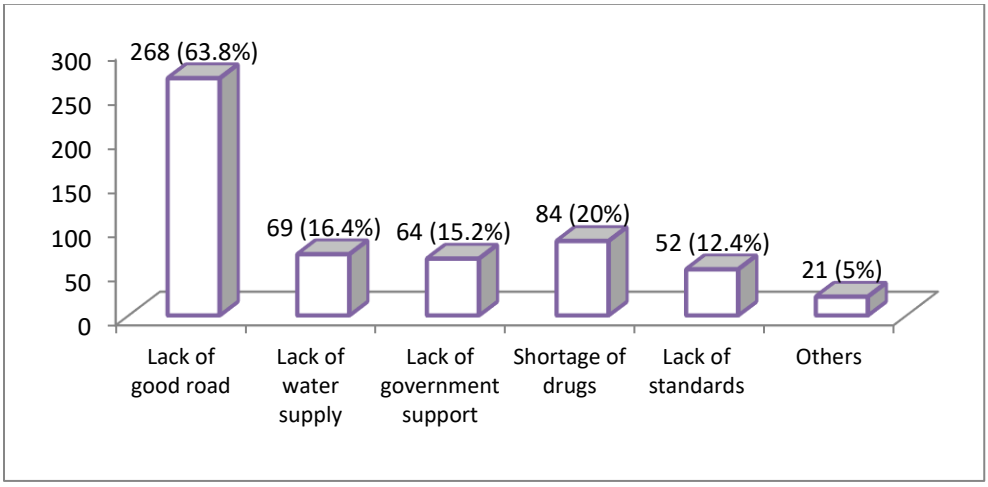

Figure 1: Challenges of accessing healthcare services in Ajebo community

Table VI shows that respondents aged 50-59 years were more likely to utilise the government-owned facility (p = 0.001) than other age groups. Males were more likely to utilise the government-owned facility than females (p = 0.049), as the married were also more likely (78.2%) to utilise the government-owned facility than others (p = 0.001).

Table IV: Association between health-seeking behaviours and socio-demographic variables

Variables	Sought medical attention		χ^2	p value
	Yes (%) n = 230	No (%) n = 19		
Age groups			37.682	0.001
< 30	16 (6.9)	0 (0.0)		
30 – 39	18 (7.8)	0 (0.0)		
40 – 49	32 (13.9)	2 (10.5)		
50 – 59	106 (46.0)	6 (31.6)		
60 – 69	22 (9.7)	11 (57.9)		
≥ 70	36 (15.7)	0 (0.0)		
Sex			7.267	0.007
Male	120 (52.1)	16 (84.2)		
Female	110 (47.9)	3 (15.8)		
Marital Status			3.797	0.284
Single	14 (6.1)	0 (0.0)		
Married	188 (81.7)	17 (89.5)		
Divorced	17 (7.4)	0 (0.0)		
Widowed	11 (4.8)	2 (10.5)		
Separated	0 (0.0)	0 (0.0)		
Marriage type			2.502	0.114
Monogamy	203 (91.4)	19 (8.6)		
Polygamy	27 (100.0)	0 (0.0)	6.107	0.047
Employment				
Employed	173 (90.1)	19 (9.9)		
Unemployed	36 (100.0)	0 (0.0)		
Retired	21 (100.0)	0 (0.0)		
Occupation			41.242	0.001
Farming	44 (73.3)	16 (26.7)		
Trading	75 (100.)	0 (0.0)		
Civil servant	97 (97.0)	3 (3.0)		
Artisan	13 (100.0)	0 (0.0)		
Others	1 (100.0)	0 (0.0)		
Educational status			29.559	0.001
No formal education	58 (78.4)	16 (21.6)		
Primary	44 (100.0)	0 (0.0)		
Secondary	119 (97.5)	3 (2.5)		
Tertiary	9 (100.0)	0 (0.0)		
Number of children			2.329	0.127
≤ 4	128 (90.1)	14 (9.9)		
> 4	102 (95.3)	5 (4.7)		
Income			11.441	0.001
< 30,000	101 (86.3)	16 (13.7)		
≥ 30,000	129 (97.7)	3 (2.3)		
Number of dependents			17.114	0.001
≤ 4	93 (84.5)	17 (15.5)		
> 4	137 (98.6)	2 (1.4)		

Those employed (83.3%) utilized the government-owned facility more (p 0.001) while civil servants (48.1%) utilized the public health facility more (p = 0.001). Respondents with secondary education used the health facilities more (p = 0.001), those with more than four children (73.7%) used the health facility more (p = 0.001). Those who earned ≥30,000 Naira (44.7%) utilised health facilities more (p = 0.107), and those with more than four dependants (p = 0.004) were all likely to utilise the government-owned health facility. All these associations were statistically significant except monthly earning.

Table VII shows the predictors of healthcare-seeking behaviour and utilisation of services among the respondents. Employment, farming, and income-earning were factors that independently predicted the utilisation of health

services. However, income-earning <30,000 Naira was the strongest predictor of utilization of healthcare facility [OR = 3.304, p = 0.001; 95% CI = 2.007-5.441]. Similarly, healthcare-seeking behaviours were predicted by several factors such as employment status, occupation, income and educational status. The respondents who were educated was the strongest predictor of health-seeking behaviour [OR = 31.392, p = 0.003; 95% CI = 3.323-96.570].

Table V: Association between access to all facilities and socio-demographic variables

Variables	Place of access to healthcare			χ^2	p-value
	Government hospital (%) n= 227	Private clinic (%) n =175	Patent Medicine store (%) n = 18		
Age groups				37.185	0.001
< 30	10 (4.4)	14 (8.0)	0 (0.0)		
30 – 39	13 (5.7)	26 (14.9)	6 (33.3)		
40 – 49	44 (19.4)	37 (21.1)	7 (38.9)		
50 – 59	101 (44.5)	60 (34.3)	0 (0.0)		
60 – 69	34 (15.0)	18 (10.3)	1 (5.6)		
≥ 70	25 (11.0)	20 (11.4)	4 (22.2)		
Sex				41.042	0.001
Male	114 (50.2)	130 (74.3)	2 (11.1)		
Female	113 (49.8)	45 (25.7)	16 (88.9)		
Marital Status				399.145	0.001
Single	7 (3.1)	10 (5.7)	0 (0.0)		
Married	209 (92.1)	159 (90.9)	0 (0.0)		
Divorced	0 (0.0)	0 (0.0)	17 (94.4)		
Widowed	11 (4.8)	6 (3.4)	1 (5.6)		
Separated	0 (0.0)	0 (0.0)	0 (0.0)		
Marriage type				153.386	0.001
Monogamy	217 (95.6)	156 (89.1)	0 (0.0)		
Polygamy	10 (4.4)	19 (10.9)	18 (100.0)		
Employment				130.509	0.001
Employed	193 (85.0)	149 (85.1)	0 (0.0)		
Unemployed	16 (7.0)	22 (12.6)	18 (100.0)		
Retired	18 (8.0)	4 (2.3)	0 (0.0)		
Occupation				106.342	0.001
Farming	90 (39.6)	67 (38.3)	18 (100.0)		
Trading	39 (17.2)	56 (32.0)	0 (0.0)		
Civil servant	92 (40.5)	17 (9.7)	0 (0.0)		
Artisan	4 (1.8)	34 (19.4)	0 (0.0)		
Others	2 (0.9)	1 (0.6)	0 (0.0)		
Educational status				148.576	0.001
No formal education	81 (35.7)	19 (10.9)	18 (100.0)		
Primary	27 (11.9)	64 (36.6)	0 (0.0)		
Secondary	119 (52.4)	60 (34.2)	0 (0.0)		
Tertiary	0 (0.0)	32 (18.3)	0 (0.0)		
Number of children				19.940	0.001
≤ 4	124 (54.6)	90 (51.4)	0 (0.0)		
> 4	103 (45.4)	85 (48.6)	18 (100.0)		
Income				20.237	0.001
< 30,000	102 (44.9)	86 (49.1)	18 (100.0)		
≥ 30,000	125 (55.1)	89 (50.9)	0 (0.0)		
Number of dependents				25.200	0.001
≤ 4	102 (44.9)	67 (38.3)	18 (100.0)		
> 4	125 (55.1)	108 (61.7)	0 (0.0)		

Discussion

The present study assessed the predictors of healthcare-seeking behaviour and the utilisation of healthcare services in Ajebo community of Ogun State, South-west Nigeria. The mean age of the respondents in this study (51.9±12.2 years) contrasts with the finding in a similar survey

conducted in Owerri, South-east Nigeria, with a mean age of 29±8.2 years.

The Owerri study [24] also found most of the respondents being female (63.6%) compared to the male dominance (58.6%) in the present study. The present study found most respondents had secondary education compared with the finding of Duru *et al.* [24] that most respondents had tertiary education. These differentials in socio-demographic parameters were mostly the result of geographic location and exposure of respondents. The present study had a setting in a rural farming community, while the study by Duru *et al.* [24] had more of an urban environment. Economic power played an essential role in the present study despite the geographic location as income, and male sex were found to determine access and healthcare-seeking behaviour.

Table VI: Socio-demographic variables and utilisation of Government own facility among respondents

Variables	Utilised government-owned facility		χ^2	p value
	Yes (%) n = 156	No (%) n = 190		
Age groups			52.317	0.001
< 30	3 (1.9)	7 (3.7)		
30 – 39	15 (9.6)	23 (12.0)		
40 – 49	20 (12.8)	34 (18.0)		
50 – 59	85 (54.5)	67 (35.3)		
60 – 69	27 (17.4)	24 (12.6)		
≥ 70	6 (3.8)	35 (18.4)		
Sex			3.878	0.049
Male	107 (68.6)	136 (71.6)		
Female	49 (31.4)	54 (54.9)		
Marital Status			32.681	0.001
Single	16 (10.3)	14 (7.5)		
Married	122 (78.2)	135 (71.1)		
Divorced	11 (7.1)	17 (8.9)		
Widowed	5 (3.2)	13 (6.8)		
Separated	2 (1.2)	11 (5.7)		
Marriage type			0.001	0.991
Monogamy	137 (87.8)	158 (83.2)		
Polygamy	19 (12.2)	32 (16.8)		
Employment			34.194	0.001
Employed	130 (83.3)	160 (84.2)		
Unemployed	8 (5.2)	26 (13.7)		
Retired	18 (11.5)	4 (2.1)		
Occupation			74.985	0.001
Farming	38 (24.4)	115 (60.5)		
Trading	23 (14.7)	35 (18.4)		
Civil servant	75 (48.1)	22 (11.6)		
Artisan	18 (11.5)	10 (5.3)		
Others	2 (1.3)	8 (4.2)		
Educational status			82.607	0.001
No formal education	35 (22.5)	35 (18.4)		
Primary	14 (8.9)	57 (30.0)		
Secondary	89 (57.1)	80 (42.1)		
Tertiary	18 (11.5)	18 (9.5)		
Number of children			20.014	0.001
≤ 4	41 (26.3)	141 (74.2)		
> 4	115 (73.7)	49 (25.8)		
Income			2.597	0.107
< 30,000	52 (33.3)	122 (64.2)		
≥ 30,000	104 (44.7)	68 (35.8)		
Number of dependents			8.430	0.004
≤ 4	37 (23.7)	76 (40.0)		
> 4	119 (76.3)	114 (60.0)		

Table VII: Logistic regression of predictors of utilisation and health-seeking behaviour of respondents.

Variable	B	p-value	OR	(95% CI)
	Predictors of healthcare utilisation			
Employment				
Employed	1.173	0.001	3.231	(1.688 – 6.189)
Unemployed	RC			
Occupation				
Farming	-1.933	0.001	0.154	(0.077 – 0.271)
Others	RC			
Income				
< 30,000	1.195	0.001	3.304	(2.007 – 5.441)
≥ 30,000	RC			
	Predictors of health-seeking behaviour			
Employment				
Employed	20.087	0.996	5.293	(0.001-19.101)
Unemployed	RC			
Occupation				
Farming	2.610	0.004	13.600	(2.336-27.187)
Others	RC			
Income				
<30,000	-0.022	0.985	0.987	(0.104-9.220)
≥30,000	RC			
Educational status				
Educated	3.447	0.003	31.392	(3.323-96.570)
No formal Education	RC			

RC – Reference Category.

The majority of the respondents in the present study used the government-owned health facility to access health care, with accessibility to the populace being the major reason, followed by the low cost of services and the availability of health workers. Among those who took ill in the preceding three months, an overwhelming majority used a healthcare facility, predominantly the government-owned facility, with a greater proportion citing the moderate cost of utilising the services. Considering the socio-economic configuration of the community where the majority are peasant farmers and petty traders, the cost of health services will be a major deciding factor in their choices of health facility to patronise.

The importance of education and occupation of the respondents in seeking, accessing health care and subsequently using them cannot be overemphasised. This study found that most respondents had secondary education and were mostly farmers, with more than half earning above 30,000 Naira. Duru *et al.* [25] reported in their study conducted in Orlu Local Government Area in the western part of Imo State that age, gender, marital status, educational level and occupation of the respondents were significantly associated with the combined use of the traditional and modern form of healthcare services. The present study found that the public health facility was mostly patronised by the respondents as against the private facility and patent medicine store, in contrast to the finding of Duru *et al.* [25], which equally considered the use of traditional healing practice. The use of traditional care was not included in the present study and could be a source of research consideration.

All the respondents in the present study were aware of the availability of at least one health facility in the community; this was higher than the report in a previous study conducted in a

semi-urban community in another State in South-west Nigeria, where only a few of respondents were aware of the existence of a PHC facility within their locality. [16] This might be due to the small size of Ajebo community and the attendant proximity of the health care facilities to the community members. Generally, the literacy level in southwest Nigeria is reportedly higher than other geopolitical zones except in the southeast region. Literacy increases one's opportunities in life and efficient use of same for their benefit. [26]

More than two-thirds of the respondents preferred receiving treatments from modern public healthcare services in the present study, while less than one-tenth of them indulged in getting drugs from a patent medicine store. This observed prevalence of the use of public healthcare services showed a clear difference with another Nigerian study by Osemene *et al.* [27] that reported a prevalence of 31%. Prevalence rates similar to what was found in the present study were observed in some other Nigerian studies [25,28] that reported prevalence rates of 61.4% and 63.7%, respectively. The marked differences observed across these studies may be attributed to the differing socio-demographic and economic characteristics of the different populations of study respondents. According to Adibe *et al.* [28] the combined use of orthodox and other treatment options is significantly associated with demographic and socio-economic characteristics of the respondents as observed in the present study.

It was also observed that most respondents in this study accessed and utilised existing healthcare services. However, healthcare-seeking behaviour was influenced by gender, occupation and educational status significantly. The predictors of the utilisation of health care services included gender, occupation, educational status, employment status and income. Comparatively, studies among Indonesians found that access to health care facilities was predicted by many factors, in addition to availability. Some of these are demographic characteristics, [29, 30] health insurance ownership, [31, 32] and physical access. [29] The most frequently examined physical access, in addition to spatial factors, include the cost of transportation and time travel. [33] Interestingly, transport appears not to be a major problem in the present study as close to half of the facilities are within less than 10minutes of travel.

In the present study, males were seven times more likely to seek health care than females and twice likely to utilise the same. This was at variance to a study conducted in Osun State, southwest Nigeria by Egbewale and Odu, [9] but similar to the one conducted in another community in Ogun State, where women were found to seek health more compared with their male counterparts. [1] The difference in study settings most probably explains the variation seen for the sexes. This study was carried out in a rural population, same as that of Omonona *et al.* [1] in Ogun State, while that of Egbewale and Odu [9] was done in a semi-urban setting. Women in urban areas are usually more empowered and able to seek and utilise health care facilities when they want to, unlike in the rural areas where, due to poverty, they are mainly dependent on their husbands; thus, they cannot freely utilise healthcare facilities.

It is not surprising that the present study found education, occupation, and income as predictors of access and utilisation of health services in Ajebo community. However, what seems incredible is the direction of influence of these variables on healthcare utilisation compared to other studies. These moderately educated, mostly secondary educated, farmers and low-income earners were mostly independently associated with healthcare utilisation in the present study. This observation contrasted with others where tertiary education and civil service

were found to predict access and healthcare utilisation. [11, 12, 18, 34] Concisely, the present study found that the odds of access and utilisation of health services in the community was higher among the educated, the farmers, and those whose monthly income was less than thirty thousand naira. Duru *et al.* [24] found the female sex, trading, and polygamy were significantly more likely to predict the use of combined modern and traditional health care treatments.

Possible theories that have been adduced for these discrepancies include the fact that those with higher education are better able to acquire information about common illnesses and medications and self-treat. [34] Another point to consider is that the less educated people are less likely to be critical of the quality of services provided at the government-owned facility, unlike the more educated ones who are likely to shun such services based on their perception of the quality of service rendered. [34] Furthermore, the findings in the present study do not preclude the fact that community members who could afford to pay and access better health services may do so in the neighbouring city of Abeokuta, the State capital, which offers several options of specialised services, equipment and workforce. This scenario was earlier reported in a Nigerian study [35] that observed preferential use of private hospitals among people in a university community. It was noted that most of them patronised private health care services. In these cases, socio-economic status and probably the level of education may have contributed to the type of healthcare services that were preferentially utilised. People in the higher socio-economic class tended to use private health care services.

According to Nabyonga *et al.*, [36] rich people choose to utilise private health care services because of their financial ability to pay. The findings in the present study reflect the bigger picture and practice at the rural community level and the pattern in most developing nations where the rich and highly privileged in the society seek better health services away from the under-equipped primary healthcare facilities, leaving the poor masses with the substandard, weak and malfunctioning health system. [34-36]

Conclusion

Healthcare-seeking behaviour and utilisation of healthcare services in the present study was encouraging. Being male, farmer, employed, lower-income status and higher education predicted access and utilisation of healthcare services. Improving community education and empowerment has both direct and indirect relation to access and utilisation of healthcare services. This study has brought to fore the need for a collaborative effort between the community and government to improve the healthcare need of rural community settings. The study highlights the need to understand and appreciate prevailing local factors in the planning, designing, and implementing health services for effective and efficient utilisation in rural communities like Ajebo.

There is a need to strengthen awareness on the need to seek modern healthcare services such as antenatal care and immunisation/child health services. For more women to seek modern healthcare, they need to be empowered and enlightened on the importance of early visits to the healthcare facility. The presence of the staff of the FMC, Abeokuta, a tertiary centre, to provide services in the PHC facility in Ajebo community would further ensure the realisation of the set goals.

Authors' Contributions: AAK and IG conceived and designed the study. AAK and FMM analysed and interpreted the data. AAK and ST drafted the manuscript. All the authors revised the manuscript for

critical intellectual contents and approved the final draft of the manuscript.

Conflict of Interest: None.

Funding: Self-funded.

Publication History: Submitted 20 September 2021; **Accepted** 13 November 2021.

References

1. Omonona BT, Obisesan AA and Aromolaran OA. Healthcare access and utilisation among rural households in Nigeria. J Dev Agric Econ 2015; 7: 195-203. https://doi.org/10.5897/JDAE2014.0620

2. Asenso-Okyere K, Chiang C, Thangata P, Andam KS. Interactions between Health and Farm-Labour Productivity. International Food Policy Research Institute, Washinton DC. 2011: 36. https://dx.doi.org/10.2499/9780896295421

3. Van der Hoeven M, Kruger A, Greeff M. Differences in Health Care Seeking Behaviour between Rural and Urban Communities in South Africa. Int J Equity Health 2012; 11: 31. https://doi.org/10.1186/1475-9276-11-31

4. Tinuade O, Iyabo RA, Durotoye O. Health-Care-Seeking Behaviour for Childhood Illnesses in a Resource-Poor Setting. J Paediatr Child Health 2010; 46: 238-242. https://doi.org/10.1111/j.1440-1754.2009.01677.x

5. Peters DH, Garg A, Bloom G, Walker DG, Brieger WR, Rahman MH. Poverty and Access to Healthcare in Developing Country. Ann NY Acad Sci 2008; 1136: 161-171. https://dx.doi:10.1196/annals.1425.011

6. Chukwuneke FN, Ezeonu CT, Onyire BN, Ezeonu PO, Ifebunandu N, Umeora MC. Health Seeking Behaviour and Access to Health Care Facilities at the Primary Level in Nigeria: Our Experience. Ebonyi Med J 2012; 11: 51-57.

7. Ekwuluo CE, Eluwa AN, Okereke I, Orji SB. Knowledge, attitude to, and utilisation of National Health Insurance Scheme (NHIS) among Health workers in the University of Nigeria Teaching Hospital (UNTH), Ituku-Ozalla, Enugu State, Nigeria. Int J Res-Granthaalayah 2018; 6: 1-22. https://dx.doi:10.5281/zenodo.1162015

8. Adam VY, Awunor NS. Perceptions and Factors affecting Utilisation of Health Services in a Rural Community in Southern Nigeria. J Biomed Sci 2014; 13: 117-124. https://www.researchgate.net/publication/281374322

9. Egbewale BE, Odu OO. Perception and Utilisation of Primary Health Care Services in a Semi-Urban Community in South-western Nigeria. J Community Med Prim Health Care 2013; 24: 11-20. https://dx.doi:10.4314/JCMPHC.V2411-2

10. Babalola BI. Determinants of urban-rural differentials of antenatal care utilisation in Nigeria. Afr Pop Studies 2014; 28: 1263-1273. https://doi.org/10.11564/0-0-614

11. Navaneetham K, Dharmalingam A. Utilization of maternal health care services in Southern India. Soc Sci Med 2002; 55: 1849-1869. https://doi.org/10.1016/s0277-9536(01)00313-6

12. Nteta TP, Mokgatle-Nthabu M, Oguntibeju OO. Utilisation of the primary health care services in the Tshwane Region of Gauteng Province, South Africa. PLoS ONE 2010; 5: e13909. https://doi.org/10.1371/journal.pone.0013909

13. Report of the Expert Group on Revitalization of Primary Health care in Nigeria. Abuja. Nigeria. National Primary Health Care Development Agency; 2015. Available at: https://www.who.int/alliance-hpsr/projects/alliancehpsr_nigeriaprimasys.pdf?ua=1. Accessed on 12 July 2021.

14. World Health Organization. Alliance for Health Policy and System Research Primary Health Care Systems (PRIMASYS). Case Study from Nigeria. Available at: https://www.who.int/alliancehpsr/projects/alliancehpsr_nigeriaabridgedprimasys.pdf?ua=1. Accessed on 24 July 2021.

15. Onoka CA, Onwujekwe OE, Hanson K, Uzochukwu BSC. Examining Catastrophic Health Expenditures at various Thresholds

using Household Consumption Expenditure diaries. Trop Med Int Health 2011; 16: 1334-1341. https://dx.doi:10.1111/j.1365-3156.2011.02836.x.Epub

16. Aminu FO, Asogba EO. Utilisation of Health Care Facilities among Farming Households in Yewa South Local Government Area, Ogun State, Nigeria. J Trop Agric Food Env Extension 2020; 19: 43-48. https://dx.doi:10.4314/as.v19i1.7

17. Admas AA, Jabulani N, Jonathan L. Health-care Utilization and associated factors in Gauteng Province, South Africa. Global Health Action.2017; 10: 1-9. https://dx.doi:10.1080/16549716.2017.1305765

18. Asuzu MC, Adebayo AM. Utilisation of a community-based health facility in a low-income urban community in Ibadan, Nigeria. Afr J Primary Health Care Fam Med 2015; 7: 1-8. https://doi.org/10.4102/phcfm.v7i1.735

19. Setting Standards for Emergency Obstetric and Neonatal Care-Basic and Comprehensive Care. Available at: https://www.unfpa.org/resources/setting-standards-emergency-obstetric-and-newborn-care. Accessed on 02 August 2021.

20. Obafemi Owode Local Government. Available at: Goggle Searcg.gsc.og.gov.ng/obafemi-owode-local-govt-ajebo-community. Accessed on 02 August 2021.

21. Nigeria Demographic and Health Survey 2018. National Population Commission. Abuja, Nigeria. The DHS Program ICF, Rockville, Maryland, USA. October 2021.

22. Jekel JF, Katz DL, Elmor JG, Wild DMG. Sample Size, Randomisation, and Probability Theory. In: Epidemiology, Biostatistics and Preventive Medicine. 3rd ed. Philadelphia: Saunders Elsevier: 20013. 197-202.

23. IBM Corp. Released 2011. IBM SPSS Statistics for Windows, Version 20.0. Armonk, NY: IBM Corp. Available from: https://www.ibm.com/support/pages/how-cite-ibm-spss-statistics-or-earlier-versions-spss

24. Duru CB, Iwu AC, Uwakwe KA, Diwe KC, Merenu IA, Okafor CU, *et al.* Health Care Seeking Behaviour and Predictors of Combined Orthodox and Traditional Health Care Utilization among Households in Communities in Owerri, Imo State, Nigeria. Open J Preventive Med 2017; 7: 115-137. https://doi.org/10.4236/ojpm.2017.77010

25. Duru CB, Diwe KC, Uwakwe KA, Duru CA, Merenu IA, Iwu AC, *et al.* Combined Orthodox and Traditional Medicine Use among Households in Orlu, Imo State, Nigeria; Prevalence and Determinants. World J Prev Med 2017; 7: 5-11. https://doi.org/10.4236/wja.2017.72008

26. Adekanle DA, Adeyemi AS, Akinleye CA, Daramola OP. Knowledge and Health Seeking Behaviour of Nigerian Pregnant Women towards Pre- Eclampsia. Res J Health Sci 2014; 2: 123-134.

27. Osemene KP, Ejuoba AA, IIori MOA. A Comparative Assessment of Herbal and Orthodox Medicines in Nigeria. Res J Med Sci 2011; 5: 280-285. https://doi.org/10.3923/rjmsci.2011.280.285

28. Adibe MO. Prevalence of Concurrent Use of Herbal and Synthetic Medicines among Out-Patients in a Mission Hospital in Nigeria. Int J Drug Dev Res 2010; 1: 60-66.

29. Barman B, Saha J, Chouhan P. Impact of education on the utilisation of maternal healthcare services: An investigation from National Family Health Survey (2015–16) in India. 11 Child Youth Serv Rev. 2020; 108:Article number 104642. https://doi.org/10.1016/j.childyouth.2019.104642

30. Laksono AD, Wulandari RD. Determinant of the Puskesmas Utilization in Madura Island. Indian J Public Heal Res Dev 2019; 10: 576–581. https://doi.org/10.5958/0976-5506.2019.03802.6

31. Suparmi, Iram Barida Maisya HL. Health Insurance as a Solution for Barriers to Maternal Healthcare Access in Indonesia. Jakarta. J Innovation, Creativity Change 2020; 14: 478-497.

32. Müllerschön J, Koschollek C, Santos-Hövener C, Kuehne A, Müller-Nordhorn J, Bremer V. Impact of health insurance status among migrants from sub-Saharan Africa on access to health care and HIV testing in Germany: A participatory cross-sectional survey. BMC Int Health Hum Rights 2019; 19. https://doi.org/10.1186/s12914-019-0189-3

33. Reshadat S, Zangeneh A, Saeidi S, Teimouri R, Yigitcanlar T. Measures of spatial accessibility to health centers: Investigating urban and rural disparities in Kermanshah, Iran. J Public Health 2019; 27: 519–529. https://doi.org/10.1007/s10389-018-0966-9

34. Abubakar M, Basiru S, Oluyemi J, Abdulateef R, Atolagbe E, Adejoke J, *et al.* Medical Tourism in Nigeria: Challenges and Remedies to Health-Care System Development. Int J DevManagement Rev 2018; 13: 223-238. https://dx.doi:10.4314/1JDMR.V13I1

35. Tanimola MA, Julius OO. Health Seeking Behaviour in Anyigba, North-Central, Nigeria. Res J Med Sci 2010; 3: 47-51.

36. Nabyonga OJ, Mugisha F, Okui AP, Musango L, Kirigia JM. Health Care Seeking Patterns and Determinants of Out-of-Pocket Expenditure for Malaria for the Children Under-Five in Uganda. Malaria J 2013; 12: 175. https://doi.org/10.1186/1475-2875-12-175