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Gender Analysis of the Effect of Income on Farming Households Utilization of Modern Health Care Services in Kwara State, Nigeria

Emmanuel . E. Henshaw[1]., Luke . O. Adebisi[*2], Oluwaremilekun .A. Adebisi[3]., Faith .I. Omoregie[4] and Asuquo Jonathan[5]

[1]*Agricultural Project Management Division, Agricultural Development Management Department, Agricultural and Rural Management Training Institute (ARMTI) Ilorin, Nigeria.*
[2]*General Management Division, Agricultural Development Management Department, Agricultural and Rural Management Training Institute (ARMTI) Ilorin, Nigeria.*
[3]*Department of Agricultural Economics and Farm Management University of Ilorin, PMB 1515, Ilorin, Nigeria.*
[4]*Reseach Division, Training Technology Department, Agricultural and Rural Management Training Institute (ARMTI) Ilorin, Nigeria.*
[5]*Department of Agricultural Education, FCT College of Education, Zuba-Abuja.*
Corresponding Author Email:tobadebisi@gmail.com

Abstract

The study made use of a gender disaggregated data to examine the effect of income on modern healthcare utilization among female and male headed household farmers in Kwara State, Nigeria. A total of 200 households were randomly selected for the study. A structured questionnaire was used for the purpose of extracting needed information from the respondents. The data collected was analyzed with descriptive statistics and Ordinary least square regression analysis. The mean annual health expenditure of the male and female headed households were #2,810 and #4,010 respectively. The result of regression analysis revealed that access to modern healthcare service, years of schooling, membership of Social group and amount of credit accessed significantly affects utilization of modern heath care among the male farming households heads while household size, years of schooling, access to healthcare service, amount of credit, membership of social group and Income affects the utilization of modern healthcare among the female headed households.The study concluded that income significantly affects utilization of modern healthcare among female headed households when compared with their male counterparts. It is therefore recommended that there should proper awareness of the benefit of using modern healthcare services in farming communities especially among the male headed households.

Keywords:
Health, Expenditure, Schooling, Farming

1. Introduction

Sound health is an important requirement for living a productive life, as poor health inflicts great hardships on households, including debilitation, substantial monetary expenditures, loss of labour and sometimes death. The health status of adults affects their ability to work, and thus underpins the welfare of the household, including the children's development (Asenso-Okyere et al., 2011). Poor health affects agricultural production which is the one of the major employers of labour in developing countries (Ben, W. (2012).

However, ILO (2000) explained that the agricultural sector is one of the occupations that is most hazardous. Farmers are usually exposed to harsh weather, difficult working posture and lengthy hours of work due to the use of local farm tools especially among the small scale farmers in rural communities.

These communities are characterized by scanty numbers of public and private health care facilities located in rural areas where small holder farmers majorly reside. This makes it difficult for farmers to access and utilize modern

healthcare facilities, also with the fact that they have limited resource which poses a major challenge to their utilization of improved innovations and technologies.

The WHO (2005) stated that several people in the developing countries residing in rural and even urban centers are unable to make use of modern healthcare services because they have to pay for them at the time they receive the medical services; and many of those that use these services suffer financial constraints and are unable to regularly utilize them.

Eneji et al (2013) asserted in their study on healthcare expenditure, health care status and productivity in Nigeria that expenditure on healthcare in Nigeria is low. They attributed poor health status in Nigeria to poverty and unemployment, poor living conditions, ignorance and poor health behaviours, scarcity of health infrastructure and low government expenditure on health. As Adebisi et al (2021) also stated in a study carried out in Kwara State that the lifestyle factors of farmers which entails modern healthcare utilization is greatly affected by their income.

Research has shown an important differential in financial access between men and women, as women tend to pay more on healthcare and other reproductive health services. These often place a high financial burden on women which increases their household expenditure (WHO, 2005).

Health care utilization among different gender is rooted in the behavior and role of men and women in the household. This makes it important to examine modern healthcare utilization from the perspective of both male and female headed households. A study like this is relevant giving the growing number of female headed households globally (Bove & Valeggia, 2009). Studies have revealed that female headed household is likely to have different demographic, sociological, and economic characteristics from male headed households and that these differences have major implications on health care access and utilization (Mumtaz et al., 2013; Nash Ojanuga & Gilbert, 1992). Empirical evidence on household income and it effect on modern healthcare utilization among farming households in Kwara state is thin.

However, the gap created by the scarcity of information on the utilization of healthcare services among rural farmers in Kwara state is the concern of this study. Therefore, the study uses a gender disaggregated data to examine the effect of income on modern healthcare utilization among female and male headed household farmers in Kwara State. The objectives are to:

- describe the socio-economic characteristics of the male and female household heads in the study area;
- examine health expenditure among male and female headed households and;
- determine the effect of income on modern healthcare utilization among male and female headed households.

2. Materials and Methods

Study Area

This study was conducted in Kwara State. Kwara State with a total of sixteen Local Government Areas has a population of 3,192,893 and a total land size of 3,682,500 hectares (NBS, 2017). It is located between latitudes $7^0$45'N and $9^0$30'N and longitude $2^0$30'E and $6^0$25'E. The annual rainfall ranges between 1,000mm and 1,500mm while the average temperature ranges between 30^0C and 35^0C. It also has an estimated figure of 203,833 farm families with the majority living in rural areas (Kwara State Government, 2013). The State is divided into four zones by the Kwara State Agricultural Development Project (KWADP) in consonance with ecological characteristics, cultural practices and project's administrative convenience. Kwara State is primarily agrarian with great expanse of arable land and rich fertile soils and the major crops commonly cultivated in the state include: yam, cassava, rice, maize, sorghum, cowpeas, groundnut, melon, okra, pepper and some leafy vegetables (KSADP, 1996).

Data and Sampling Procedure

Primary data was used for this study. The data was collected through the use of a structured questionnaire. The population for this study was made up of rural farmers in Kwara state. Three staged sampling technique was used in the selection of the respondents, the first stage involve the random selection of zone C and zone D out of the four zones in the state, the second stage involve the random selection of five (5) villages from each zone using ADP village listing and in the third stage, twenty (20) farming households were randomly selected. In all, a total of 200 farming households were used for the study.

Analytical Techniques

The data collected were analyzed with descriptive statistics, Ordinary least square regression model and Likert Type Scale.

Descriptive Statistics

Descriptive statistics such as frequency, percentage and tabulation, use of central tendency and dispersion (mean, mode, median and standard deviation) was used to analysis the socio-economic characteristics of the households heads.

Ordinary Least Square Regression Model

The Ordinary Least Square (OLS) approach was used to determine the effect of modern health care utilization on household's incomes in the study area. The use of Ordinary Least Square is as a result of the assumption of normal distribution, that is, the OLS estimator is normally distributed and are said to be best, unbiased linear estimator (Gujarati, 2008).

The model one is implicitly specified as follows;

$Y = f(X_{10}, X_{11}, X_{13} \ldots\ldots X_n + e_i)$ …… eq(1)

The model is explicitly specified as follows;

$Y = \alpha+\beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 \ldots\ldots B_9X_9 + e_i$ …… eq(2)

Where:

α = intercept

Y = Amount spent on modern health (N)

β_1-β_9 = Regression coefficient

e_i = Error term designed to capture the effects of unspecified variables in the model

X_1= Household size; X_2 = Education of household head (years of schooling); X_3 = household income (Naira); X_4=Membership of social group (binary variable: yes =1, no = 0); X_5=Access to credit (binary variable: yes =1, no = 0); X_7 = access to healthcare facilities (binary variable: yes =1, no = 0); X_8 = Age of Household head

3. Results and Discussion

Socio-Economic Characteristics of Household Heads

Table 1 revealed that 62% and 43% of the male and female headed farming households respectively were less than 50 years. The mean age of male and female farming headed holds at 48.4 and 56.7 years respectively, this implies that bulk of the male and female household heads were in their middle and inactive age. About 88% and 86% of the male and female headed farming households are married. The study also revealed that the modal household size for the male and female household heads is 6 and 4 respectively which shows that male headed households have more household size than the female headed households. The distribution of farming households also showed that 52% of male household heads had at least secondary education while only about 31% of the female household heads had at least secondary education. This shows that the male farming household heads were more educated than the female household heads.However, about 63% and 53% of the male and female headed households practice agriculture as their primary occupation. About 40% and 58% of the male and female headed households respectively access credit facilities from friends, families and informal financial institutions which help them to Cather for their family obligations including health.

Health Expenditure among Farming Households in Kwara State

Table 2 shows that majority (54.29%) of the male headed households spent less than 3,000 on modern healthcare while majority (63.33%) of the female headed households spent more than 3,000 annually on health. The mean annual health expenditure of the male and female headed households is #2,810 and #4,055. This shows that households headed by female spend more on modern healthcare services in the study area. This is in line with the findings of (13) who also stated that female headed households have higher cost burdens from seeking medical care and untreated morbidity than their male counterparts

Effect of Household Income on the Utilization of Modern Healthcare Service among Farming Households in Kwara State

Table 3 shows the result of the effect of household income on the utilization of modern healthcare service among farming households in Kwara State, Nigeria. The results revealed that access to healthcare service, years of schooling, membership of Social group, amount of credit accessed significantly affects utilization of modern heath care by male farming households heads while household size, years of schooling, access to healthcare service, amount of credit, membership of social group and household income significantly affect the utilization of modern healthcare service among farming households headed by female. The coefficient of years of schooling was positive and significant at 5% and 10% for the male and female headed households respectively which implies that the more educated the male and female households head the better there utilization of modern health care facilities. The coefficient of access to healthcare service was positive and significant at 10% and 5% for the male and female headed households. This implies that the household heads that have access to modern healthcare are able to utilize it much better.

Table 1. Distribution of Household Heads According to their Socio- Economic Characteristics

	Male Headed Households (N=140)		Female Headed Households (N=60)		All Households (N=200)	
Characteristics	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Age (years)						
≤30	02	1.43	0	0.00	02	1.00
31-40	35	25.0	14	23.33	49	24.5
41-50	52	37.14	08	20.00	60	30.00
51-60	25	17.85	25	25.00	50	25.00
>60	26	18.57	13	21.67	39	19.50
Mean Age	48.4		56.7			
Marital Status						
Married	124	88.57	52	86.00	176	88.00
Widow	0	0.00	4	6.00	4	2.00
Widower	6	04.28	0	0.00	6	3.00
Divorced	10	07.15	4	6.00	14	7.00
Educational Level						
No formal	29	20.71	22	36.67	51	25.50
Primary	38	27.14	19	31.67	57	28.50
Secondary	51	36.43	12	20.00	63	31.50
Tertiary	22	15.73	07	11.66	29	14.50
Household size						
≤5	48	34.39	13	21.67	61	30.5
6-10	78	55.71	36	60.00	114	57.00
>10	14	10.00	11	18.33	25	12.50
Mean	6.5		5.8			
Place of Farming Occupation						
Primary	89	63.57	32	53.00	121	60.50
Secondary	51	36.43	28	46.00	79	39.50
Total	140	100	60	100.0	100	100.0
Social Group						
Yes	129	92.14	33	55.00	162	81.00
No	11	7.86	27	45.00	38	19.0
Annual Farm Income (Naira)						
< 200,000	05	03.57	13	21.67	18	9.00
200,000– 400,000	48	34.29	19	31.67	67	33.50
401,000– 600,000	63	45.00	20	30.00	83	41.50
>600,000	24	17.14	08	1.33	32	16.00
Mean	533,120		435,010			
Monthly Off Farm Income (Naira)						
≤10,000	05	03.57	15	25.00	20	10.00
11,000 – 20,000	56	40.00	25	41.67	81	40.50
21,000 – 30,000	36	25.71	18	30.00	54	22.00
31,000 – 40,000	33	23.57	02	3.33	35	17.50
41,000 – 50,000	8	5.71	0	0.00	08	04.00
>50,000	02	1.42	0	0.00	02	01.00
Mean	34,270		18,200			
Access to Credit						
Yes	56	40.00	35	58.33	91	45.50
No	84	60.00	25	41.67	109	54.50
Total	140	100.0	60	100.0		

Source: Field survey, 2020

Table 2. Distribution of Households according to their Annual health expenditure

Health Expenditure (N)	Male Headed Household (N=160)		Female Headed Households (N=40)	
	Frequency	Percentage	Frequency	Percentage
< 3,000	76	54.29	22	36.67
2,000 – 4,000	33	23.57	13	21.66
4,000 – 6,000	20	14.28	15	25.00
> 6,000	11	07.86	10	16.67
Total	140	100.0	60	100.0
Mean	2,810		4,055	

Source: Field survey, 2020

Also the coefficient of the membership of social group was also positively significant at 10% and 5% for the male and female headed household which implies that households heads who belong to social groups have tendencies to utilize modern healthcare much better than their counterparts who do not belong to any social group.

The coefficient of income of the household heads was positive and significant at 1% for the female headed households while it wasn't significant for the male headed households. This implies that the more the income of the female households heads the more the tendency to patronize and utilize the modern healthcare service. This is contrary to the male household heads whose income does not necessarily improve the rate of their utilization of modern health care services in the study area. This is in agreement with (13) who stated that health expenses rise with income.

The coefficient of household size in households headed by female was positive and significant at 10% .This shows that the more the household size of female headed households the more they utilize modern health care services in the study area.

Table 3. Effect of Household Income on the Utilization of Modern Healthcare Facilities

Variable	Male Headed Households			Female Headed Households		
	Coefficient	Std Error	t-stat	Coefficient	Std Error	t-stat
Age (years)	-0.0030792	0.03412	0.662	-422.4528	1070.159	0.694
Access to healthcare	0.022886*	0.02348	0.093	5824.23**	0.00851	0.0245
Household size	0.008301	0.05022	0.829	4308.243*	0.7179	0.071
Farming Experience	0.00434	0.05086	0.504	1174.555	685.887	0.92
Farm Size	0.00034	0.00404	0.032	1195.214	0.0309	0.658
Years of schooling	0.016018**	0.009588	0.012	2712.438*	0.00296	0.064
Household income	0.47517	0.638761	0.000	0.042789***	0.049249	0.000
Membership of Social Association	0.04251**	0.0638761	0.089	0.0151.58*	0.020.29	0.066
Amount of credit	0.0000351**	0.000057	0.044	0.000341*	0.0005083	0.054
Constant	-5.8860***	.289348	0.000	308274***	74175.08	0.000
R^2	0.4949			0.7276		
Adjusted R^2	0.3957			0.2996		

Source: Field survey, 2020; * significant at 10%, ** significant at 5%, ***significant at 1%

4. Conclusion and Recommendations

This study concluded that female headed households incur more on health expenditure than the male headed households in the study area. However, increase in their income give rise to an increase their utilization of modern health care services unlike the male headed households.

The study therefore recommends that there should proper awareness of the benefit of using modern healthcare services in farming communities especially among the male headed households.

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