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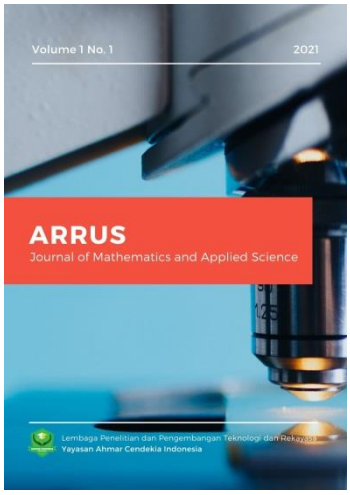

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RESEARCH ARTICLE

Associate Issues in Delayed Care Seeking Behavior in Households Suffering from Malaria

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Abstract: This study examines the associated issues in delayed care-seeking behaviour from malaria in households in rural Central Cross River states. Specifically, this study examines the extent to which belief in traditional medicine and household income relates to delayed care-seeking behaviour in household members suffering from malaria. The descriptive survey method was utilized to collect data from 1,229 participants from Central Cross River State, Nigeria. 1,224 The participants were selected using the multistage sampling technique. Data was collected using a self-developed structured questionnaire and in-depth interview guide. Elicited data was analyzed using descriptor and parametric statistics. Data collected from the in-depth interview conducted on five participants in the study area were thematically analyzed. Out of the 1224 quantitative instrument distributed, 1065 was judged to valid to the researchers. The analysis revealed that belief in traditional medicine and household income were significant determinants of delay in care-seeking behaviour among grow household members suffering from malaria. The study calls for policy change towards malaria care for rural households in Central Cross River states.

Keywords: *Malaria Scourge, delayed care-seeking behaviour, belief in traditional medicine, Household income*

1. Introduction

Malaria remains a global health problem even with the progress made in the past two decades in prevention and treatment (Steketee, Choi, Linn, Florey, Murphy, & Panjabi, 2021; Centre for Disease Control and Prevention, 2021). Between 2000 and 2020, investment in preventable measures to curb the spread of malaria has saved 7.6 million lives and prevented 1.5 billion cases globally (Malaria Consortium, 2021). Despite the investment, malaria remains a health problem. In 2019, an estimated 229 million malaria cases were reported globally, with an estimate of 409,000 deaths (World Health Organization, 2021). This is despite the progress made in the investments in prevention and treatment in the region in the last 20 years, the incidence of Malaria in Africa reduced by 29 per cent and deaths by 60 per cent (Degarege, Fennie, Degarege, Chennupati & Madhivanan, 2019; WHO, 2021). Nations such as Cape Verde and Algeria have been certified malaria-free, while South Africa, Botswana, Ethiopia, Ghana, Namibia, and the Gambia, have reduced the incidence of malaria by 40 per cent (Sultana, Sheikh, Mahmud, Jahir, Islam, & Sakar, 2017; C.D.C., 2021).

However, 81.8 per cent of the 44-malaria endemic African nations have not successfully reduced the problem of Malaria (WHO, 2019; Ryan, Lippi & Zermoglio, 2020). Nineteen

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nations in sub-Saharan Africa and India account for almost 85 per cent of the total malaria case in the region. The plasmodium falciparum is the malaria parasite that accounts for 99.7 per cent of the region's malaria case (WHO, 2019; Philip, Barnows, Manando, Van Huijsduijnen, Van Voorhs, & wells, 2017). Nigeria has the world's highest number of deaths (Severe Malaria Observation, 2019; WHO, 2020). The nations cases are stagnated between 292 and 296 per 1000 of this population between 2015 and 2018 (World Health Organization, 2019). Statistics show that 50 per cent of the nation's adult and children between the ages 0 and five years will suffer from malaria between 2 and 4 times a year (F.M.H.,2011; Oladepo, O., Oyeyemi, Titiloye, Adeyemi, Burnett, Apera, Oladunni & Alliu, 2019). children under the ages of five have the highest list of morbidity and mortality from malaria, with 20 per cent under-five deaths and 11 per cent maternal mortality attributed to Malaria (National demographic health survey, 2018; Simon-Oke, 2019; Morankinyo, Balogun & Fagbanmigbe, 2018; Akpabio, Angioha, Egwuonwu, Awusa & Ndiyo, 2020; Ibiam, Bekomson& Angioha, 2020).

Rural areas and the underprivileged are at risk from Malaria in Nigeria. According to the National Population Commission (2018) National Demographic Health Survey, Malaria is higher among the poor or underprivileged, 42.9 per cent, compared to the higher quantile of the society 44 per cent. It is prevalent in rural Nigeria (35.6%) compared to urban Nigeria (11.5%). So why is malaria endemic in rural areas in Nigeria? The Nigerian government, in partnership with other international organizations such as the World Bank, UNDP, UNICEF, WHO, have but instituted various programmes both at state, local and federal levels to reduce the morbidity and mortality from malaria, mainly in rural settings. Programs such as Rollback malaria program (R.B.M.), SUNMAP'S National Malaria Program (N.M.P.) and National Malaria Elimination Programme. Despite these programs aimed at reducing malaria, malaria incidence, especially in rural Nigeria, remains high (27%) (WHO, 2019).

Delayed care seeking behaviour has been attributed to be among the reasons for the high prevalence of malaria in rural Nigeria (Babalola, Ajumobi & Ajayi, 2020; Chukwuocha, Okpanma, Nwakwuo, & Dozie, 2014; Eseigbe, Anyiam, Ogunrinde, Wammanda, & Zoaka, 2012; Ironbar, Angioha, & Iji, 2021; Angioha, P. U., Omang, Akpabio, Ogar, Asongo, & Ibioro, 2021). several factors have been attributed to the delay in care-seeking behaviour. Shumerga, Hebo, Gebrehiwot, & and Gebre (2020) found that Benny housewife, history of child mortality and chewing khat were determinants of delay in seeking care for malaria treatment for under-five children in southwest Ethiopia. Chukwuocha, Okpanma, Nwakwuo, and Dozie (2014) found that age, marital status, educational status of murder and family socioeconomic status add determinants of delay in care-seeking behaviour of children under five suffering from malaria. Guntur, Kingsley, and Islam (2021) found that low level of education, Low economic status, distance to health facilities and occupation were determinants of delay in seeking care for Malaria in Indonesia.

Although studies have attempted to determine factors that cause a delay in seeking care for malaria in other parts of Nigeria, Africa and globally, none has focused on Central Cross River State. Therefore, this study attempts to specifically analyze if factors such as belief in traditional medicine and household income are determinants of delay in care-seeking behaviour of household members suffering from Malaria in Central Cross River States, Nigeria.

(i) To what extent does the belief in traditional medicine relate to delayed care-seeking behaviour in household members suffering from Malaria in Central Cross River?
(ii) To what extent does household income relate to delayed care-seeking behaviour in household members suffering from Malaria in Central Cross River?

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2. Research Method and Materials

2.1. Setting and Population

This study is confined to the Central Cross River State. The district is one of the three senatorial districts of Cross River State in the southern part of Nigeria. The Central senatorial district comprises six local government areas: Abi, Boki, Etung, Ikom, Obubra, Yakuur local government area. The senatorial district is situated in the rainforest forest belt, covering a landmass of 23,000 square kilometres. According to the population projection of 2016, the study area's population stands at 1,261,000 (city population, 2017). The people's distinct trait sets them apart, expressed in their language, festival, kinship, food, mode of dressing, and art and craft. It is from this population that the participants of this study will be drawn.

2.2. Participants Selection

A total of 1224 participants were selected to administer the data collection instrument to determine the sample size. The survey monkey sample size determinant technique was used at a 95 per cent confidence level and a margin of error of 2.8 per cent. The multiple-stage sampling technique was adopted in selecting the sample size. In stage one, the stratified technique was adopted to stratify Central Senatorial District into six according to the Local Government Area. The purposive sampling was adopted in selecting four out of the six local government areas. The selected local government areas are Abi, Yakkur, Etung and Boki Local Government.

In stage two, the simple random sampling technique was adopted in selecting three wards, each from the selected local government areas. This was done by writing the menus of each political ward on a piece of paper and dropping them into a bowl, shuffle them and pick two from the lots. This was a repeat for all the four selected local government areas. The selected wards are highlighted in Table 1. in total, 12 wards were selected. Finally, in stage three, the purposive sampling technique was used in selecting 102 households from each of the selected wards.

2.3. Design and Instrumentation

The descriptive survey method was adopted for the study. The study allowed the researcher to observe and describe the behaviour and characteristics of a population with trying to influence them (Attah & Angioha, 2019; Angioha, Omang, Ishie, &Iji, 2020).. This method allowed the researcher to use a semi-structured questionnaire and interview guide to gather need information on associate factors in the delayed care-seeking behaviour of malaria patients. The questionnaire contained close-ended questions that enable the participants who were primarily rural to be able to attempt. The interview guide was used to guide the researchers when interviewing key informants who could provide essential information on the topic under study. Seven individuals were interviewed for the study.

2.4. Ethical Consideration and Data Collection Process

Two letters of consent approved by the Department of Sociology, University of Calabar and The Cross River Ministry of Health were given to the researcher to aid the researcher when approaching the households under study. The researcher also obtained verbal consent from participants. The participants were assured of their anonymity. Data were collected in three months, between February and May 2021.

2.5. Tools for Statistical Analysis

The primary analysis was conducted using descriptive analysis such as tables, graphs, and simple percentages. Parametric statistics was then employed to analyze the result from descriptive statistics using lineal regression. Finally, the qualitative data collected were thematically analyzed. Out of the 1224 quantitative instrument distributed, 1065 was judged to valid to the researchers. This figure was used for analysis.

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3. Results and Discussion

3.1. Household Demographic Data (questionnaire)

In this section, household demographic variables such as head of household, age of the interviewed household member, household size, number of children, occupation of the head of household, and household income per month were identified. Their mean and standard deviation was identified using frequency distribution tables and simple percentage in table 1 out of the 1065 selected household, 896 (84.13%) were headed by men, with 169 (15.86) headed by women. The reason for the high rate of women is because of divorce, death of spouse and separation. Household distribution based on the age of household members interviewed revealed that 214 (24.41%) were aged between 20 and 30 years, 260 (24.41%) were aged between 31 and 40 years, 26.7 (25.07%) were aged between 41 and 50 years and 324 (30.42%) were aged 51 and above.

Household distribution based on household size revealed that; 311 (29.20%) were between 3 and 5, 417 (39.15%) were between 6 and 8, 241 (22.63%) were between 9 and 11, and 96 (9.01%) were 12 and above. The large number of household members in the study area can be attributed to the nature of traditional African homes families take in or act as guardians to other family members, the large number of children and polygamy. Household distribution based on the number of children revealed that; 602 (56.52%) households had between 1 and 3 children, 405 (38.03%) had between 4 and 6 children, and 58 (5.45%) had six and above children. Household distribution based on the occupation of the head of household revealed that; 513 (48.17%) heads of household were farmers, 222 (20.84%) were civil/public servants, 215 (20.19%) were engaged in one form of business or the other, 115 (10.80%) were engaged in other forms of occupation. Household distribution based on income per month revealed that; 334 (31.36%) households survive on less than 10,000 naira in a month, 351 (32.96%) households survive on between 10,000 and less than 15,000 Nigerian naira, 235 (22.06%) households survive on between 15,000 naira and less than 20,000 naira, and 145 (13.62%) household survive on 20,000 naira and above.

Table 1: Households' demographic data

Variable	Category	Response rate (N)	Per cent (%)
Head of Household	Male	896	84.13
	Female	169	15.86
	Total	1065	100.00
Age of interviewed Household Member	20 – 30 years	214	20.09
	31 – 40 years	260	24.41
	41 – 50 years	267	25.07
	51 &above	324	30.42
	Total	1065	100.00
Household Size	3 to 5	311	29.20
	6 to 8	417	39.15
	9 to 11	241	22.63
	11 and above	96	9.01
	Total	1065	100.00
No of children	1 to 3	602	56.52
	4 to 6	405	38.03
	6 and above	58	5.45
	Total	1065	100.00
Occupation of Head of Household	Farming	513	48.17
	Civil servant/ public servant	222	20.84
	Business/ Self-employment	215	20.19
	Others	115	10.80
	Total	1065	100.00
Income per month	Less than N10,000	334	31.36
	₦10,000-less than ₦15,000	351	32.96
	₦ 15,000 – less than ₦ 20,000	235	22.06
	₦ 20,000 and above	145	13.62
	Total	1065	100.00

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3.2. Demographic Distribution of Interviewees

The distribution of interviewees according to gender revealed that 4 (57.14%) were females and 3 (42.8%) were male. The choice of more females is because women tend to have more household information than men. The distribution of interviewees according to marital status revealed that most of the interviewers, 5 (71.42%) was married, 1 (14.28%) was divorced, and 1 (14.28%) was separated. In terms of the occupation of the participant, 4 (57.14%) were farmers, 1 (14.28%) was a pharmacist, 1 (14.28%) was a doctor, and 1 (14.28%) was a civil servant. Finally, the distribution of the participants base on their community revealed that the interviewers were selected from seven different communities: Itigidi, Idomi, Ekuri. Bendeghe. Ugep. Ediba and Nsofang.

Table 2: Demographic characteristics of key informant

Categories	1	2	3	4	5
Sex	Female	Female	Male	Male	Female
Marital status	Married	separated	Married	Married	Married
Occupation	Pharmacist	Civil servant	Farmer	Doctor	Farmer
Community	Idomi	Ekuri	Bendeghe	Ugep	Nsofang

3.3. Presentation of Results

3.3.1. Research Question one

To what extent does the belief in traditional medicine relate with delayed care-seeking behaviour in household members suffering from Malaria in Central Cross River. Descriptive statistics was first used to analyze the data collected from the field before the result was subjected to parametric statistics.

As presented in Table 4, 4 items in this sub-scale were used to measure belief in traditional medicine and delayed care-seeking behaviour in household members suffering from malaria. As presented in table 4, 44 41 per cent (N=473) reported that when members of their family fall sick from malaria or any other ailment, traditional medicine is the preferred treatment choice. 39.62 per cent (N=422) reported. No, and 15.96 per cent reported Not Sure. 38.68 per cent (N=412) of the participants reported Yes, that traditional treatment is more potent than orthodox medicine when it comes to the treatment of malaria, 35.49 per cent (N=378) reported No and 26.76 per cent (N=285) reported Not Sure. The analysis reveals that 68.92 per cent (734) of the participants reported that they use traditional medicine to treat Malaria because Orthodox treatment is too expensive, 21.30 per cent reported No and 11.08per cent reported Not Sure. On using traditional medicine has been in the culture of my family before the introduction of orthodox medicine, 91.74per cent (N=977) reported Yes, 6.76per cent (N=72) reported No and 1.50per cent (N=16) reported Not Sure

Table 3: Response on belief in traditional medicine

S/N	Question	Yes	No	Not sure
1.	When a member of my household falls sick, we prefer to treat them with traditional medicine	473 (44.41)	422 (39.62)	170 (15.96)
2.	Traditional treatment is more potent than English medicine when treating Malaria	412 (38.68)	378 (35.49)	285 (26.76)
3.	We use traditional medicine to treat malaria because it is what we can afford	734 (68.92)	213 (21.30)	118 (11.08)
4.	Using traditional medicine has been in the culture of my family before the introduction of Orthodox medicine	977 (91.74)	72 (6.76)	16 (1.50)

The result from the descriptive statistics was subjected to parametric statistics using simple linear regression at 0.05 level of significance. The aim was to check the correlation between belief in traditional medicine and delayed care-seeking behaviour in household members suffering from Malaria in Central Cross River. The independent variable is belief in traditional medicine, while the dependent variable is delayed care-seeking behaviour. Simple

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linear regression statistics was used to test this hypothesis at 0.05 alpha level, and the result is presented in table 4.

Table 4: Summary simple linear regression analysis of the contribution of belief in traditional medicine and delayed care-seeking behaviour in household members suffering from malaria

Variables	Mean	Std. Deviation
Belief In Traditional Medicine	15.1437	6.97923
Delayed care-seeking behaviour in household members suffering from Malaria	41.1230	11.80890

Model	Sum of Squares	Df	F	R	R Square	Adjusted R Square	Sig
Regression	908.495	1	6.549	.178[a]	.066	.065	.011[a]
Residual	147466.392	1063					
Total	148374.886	1064					

The result of the analysis, as presented in table 4, revealed that the R-value of .178 is significant at 0.05 alpha level (p-value of .011 is less than 0.05); hence there is a significant correlation between belief in traditional medicine and delayed care-seeking behaviour in household members suffering from Malaria in Central Cross River. Also, the R2 –value of .066 implies that the predictor variable accounts for 66% of the total variance (belief in traditional medicine).

Furthermore, the regression ANOVA is significant, showing that there was a significant linear association (contribution) of the predictor variable (belief in traditional medicine) and delayed care-seeking behaviour in household members suffering from Malaria given by the F-ratio (1, 1063) = 6.549; $p < 0.05$. The adjusted R2 (0.66) shows some shrinkage of the unadjusted value (0.67), indicating that the model could be generalized to the population. Based on the results, it was concluded that belief in traditional medicine significantly influences delayed care-seeking behaviour in household members suffering from Malaria in Central Senatorial District of Cross River State.

3.3.2. Research Question two

To what extent does household income relate to delayed care-seeking behaviour in household members suffering from Malaria in Central Cross River. Descriptive statistics was first used to analyze the data collected from the field before the result was subjected to parametric statistics.

As presented in Table 5, there are five items in this subscale used to measure household income in delayed care-seeking behaviour in household members suffering from malaria in Central Cross River. As presented in Table 5, 91.83 per cent (N=978) of the participants reported that their household struggled to survive with the kind of income they make. 6.48per cent (N=69) reported no, and 1.69per cent (N=18) reported not sure. Also, 78.30per cent(N=834) reported that because of their household's income, they could hardly provide proper treatment when any member falls ill with malaria. 19.81 per cent (N=211) reported new and 1.88per cent (N=20) reported not sure. Again 80.66 per cent (N=859) of the participants reported that they could hardly afford to run proper tests anytime a member of the household fall sick. 18.03 per cent (N=192) reported no, and 1.31 per cent (N=14) reported not sure. 67.70per cent (N=721) of the participants reported that when members of their household fall sick, they can only afford to take the person to the hospital because of finance. 31.55 per cent (N=336) reported no, and 0.75 per cent (N=8) reported not sure. Finally, 99.72 per cent (N=1062) of the participants reported that when members of their household fall sick, they patronize over the counter drugs because they are cheap and easy to get, and only 0.28 (N=3) reported not sure

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Table 5: Response on Household income

S/N	Question	Yes	No	Not Sure
1	My household struggle to survive with the kind of income that we make	978 (91.83)	69 (6.48)	18 (1.69)
2.	Because of the income that my household make, we can hardly afford to provide proper treatment when any member of our household falls ill with Malaria	834 (78.30)	211 (19.81)	20 (1.88)
3.	We can hardly afford to run proper tests any time a member of my family falls sick	859 (80.66)	192 (18.03)	14 (1.31)
4.	When members of my household fall sick, we can hardly afford to take the person to the hospital because finance	721 (67.70)	336 (31.55)	8 (0.75)
5	Most times, anyone in my household has malaria. We patronize over the counter drugs because they are cheaper	1062 (99.72)	0	3 (0.28)

The result from the descritive statistics was subjected to parametric statistics using simple linear regression at 0.05 level of significance. The aim was to check the correlation between belief in traditional medicine and delayed care-seeking behaviour in household members suffering from Malaria in Central Cross River. The independent variable is belief in traditional medicine, while the dependent variable is delayed care-seeking behaviour. Simple linear regression statistics was used to test this hypothesis at 0.05 alpha level, and the result is presented in Table 6.

Table 6: Summary simple linear regression analysis of the contribution of household income relate and delayed care-seeking behaviour in household members suffering from malaria of rural dwellers

Variables	Mean	Std. Deviation
Household income	14.4207	4.13625
Delayed care-seeking behaviour in household members suffering from Malaria	41.1230	11.80890

Model	Sum of Squares	Df	F	R	R Square	Adjusted R Square	Sig
Regression	3026.032	1	22.131	.257[a]	.068	.067	.000[a]
Residual	145348.855	1063					
Total	148374.886	1064					

As presented in table 6, the analysis revealed that the R-value of .257 is significant at 0.05 alpha level (p-value of 0.000 is less than 0.05); hence household income relates to delayed care-seeking behaviour in household members suffering from Malaria in Central Cross River. Also, the R2 –value of .068 implies that 68% of the total variance is accounted for by predictor variable (household income). Furthermore, the regression ANOVA is significant, showing that there was a significant linear association (contribution) of the predictor variable (household income) and delayed care-seeking behaviour in household members suffering from Malaria in Central Cross River given by the F-ratio (1, 1063) = 22.131; $p < 0.05$. The adjusted R2 (.067) shows some shrinkage of the unadjusted value (.068), indicating that the model could be generalized to the population. Based on the results, it was concluded that household income significantly influences delayed care-seeking behaviour in household members suffering from Malaria in Central Cross River.

3.4. Discussion

The present study examines if belief in traditional medicine and household income are determinants of delayed care-seeking behaviour of household members suffering from malaria in Central Cross River State Nigeria. From the descriptive analysis of the first research question, 44.41 per cent of the participants reported a preference for traditional medicine to treat illness, including malaria. A significant percentage of the participants (38.68%) believe that traditional treatment is more potent than orthodox in the treatment of malaria. Mainly rural and having a high number of low-income earners, most of the participants (68.92 per cent) reporters using traditional treatment because they are

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affordable. The result of the descriptive statistics was subjected to parametric statistics using Lineal Regression. Results revealed that the R-value of .178 is significant at 0.05 alpha level (p-value of .011 is less than 0.05). This implies a significant correlation between belief in traditional medicine and delayed care-seeking behaviour in household members suffering from Malaria in Central Cross River. Also, 66% of the total variance in delayed care-seeking behaviour of household members suffering from malaria is accounted for by belief in traditional medicine.

This result corresponds with the in-depth interview where most of the participants gave reasons for using traditional medicine.

To access why people, use and prefer traditional medicine, a farmer in Bendege was interviewed:

I am an African man. my forefathers have been using traditional medicine long before I was born, and these treatments were effective. So why will I believe something foreigners introduced to my society? I have been using it, and it has been effective. You do not need to go far to get these medicines. For example, I just need to go behind my house, pluck a few leaves, boil them and drink. However, the white man's medicine is quite expensive, and you must go very far to get them.

He was asked about the deaths that occur, and he argued.

Let me tell you. People do not just die from malaria. We are in the village here. We know what happens. How can you tell me that medicine that has been treating our forefathers effectively is no longer effective? This is not true; people just use the face of malaria to kill other people using witchcraft.

Another participant in Itigidi was interviewed. He submitted:

traditional medicine a quite potent. We have been using this to treat all sicknesses, and you do not have to spend plenty of money on them, unlike when you visit the hospital, where you spent a lot of money that is hard to come by these days. People have been using it before I was born; it has been effective. Malaria has always been here. Even if our people did not know that this was malaria, they knew it was a sickness that could be cured using traditional medicine.

A doctor in Ugep argued that.

Most of these people here are a traditionalist, they have never known any other practice apart from them once they were born with. So, it will be difficult to ask them to use orthodox medicine, and these medicines are cheap and easy to acquire. They believe that They do not need to travel long distances, spend money that is hard to come by, go through the rigorous process needed in orthodox medicine. They have this traditional healer in their community that would help them with treatment. I am a doctor I still get patients who tell me that doctor, please let me go home. I can take care of myself very well at home. I have treatments at home that would take care of me very well, but you see, these same people will still be rushed here in critical condition, only for me to find out that they have been taking traditional medicine or concussion.

A pharmacist argued that.

This area is rural, and most of the people here believe in traditional ways of doing things. So, when they are eel with malaria, you see them preparing trip back leaves and some fruits boil them together and drink, believing that this concussion will kill them. Most times, you only see people buying drugs when their sickness becomes serious or their family member is in critical condition. Moreover, the fact that most of the people here are farmers and do not have the kind of money they believe is needed for orthodox treatment. They fall back on traditional medicine for treatment.

This finding is supported by that of Atwine, Hultsjo, Albin, and Hjelm (2015), whose study reported that failure of effect and cost of western medicine, unknown extracted western medicine is the reason for the adoption of traditional medicine for the treatment of illness in rural African homes. Akeju, Oladapo, Vidler, Akinmade, Sawchuck, Qureshi, Solarin, Adetoro, and Von Dadelszen (2016) study conducted in Ogun States, Nigeria, reported a strong sense of trust in traditional medicine as a significant factor for preference of traditional treatments.

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From the second research question, 91.83 per cent of the households reported that they are poor, struggling to survive on the meagre income they make. 78.30 per cent reported not being able to afford proper treatment when a member of the family falls sick. Most of the respondents (18.66%) reported relying on self-diagnosis when family members fall sick. Moreover, nearly all participants interviewed (99.72%) reported patronizing over the counter drugs for treatments when members of their household become sick of malaria. Parametric statistic using linear regression was carried out with the description analysis results revealed that the R-value of .257 is significant at 0.05 alpha level (p-value of 0.000 is less than 0.05). This implies that household income relates to delayed care-seeking behaviour in household members suffering from Malaria in Central Cross River. Also, 68 per cent of the total variance in delayed care-seeking behaviour of household members suffering from malaria is accounted for by household income.

The result corresponds with the result from the in-depth interview carried out. Most respondents argued that their income level is a determinant of delay in seeking care for members of their household who are sick from malaria.

The researchers interviewed a farmer who is a widow in Nsofang, who argued that she hardly goes to the hospital for treatment. When asked why? she argued

I am a single mother with four children, no husband, and I farm for a living Hospitals are too expensive. I do not make much money, so how can I survive and feed my family? I do not have anybody who helps me so how do I get money to start going to the hospital spend. We have a local pharmacy here that we buy drugs from, so when my children fall sick, I go to her, even if I do not have money, at least that one I can pay later. However, if you go to the hospital in Ikom, they will ask you to pay for registration, buy cards, and before some things that you do not understand. In some hospitals, before you see the doctor, you have to pay a consultation fee. I do not have money. The only money I make is to take care of my children, which is not even enough. My husband left us with nothing, and I must work every day on the farm to make ends meet.

A farmer in Bendege reported.

Things are hard, I am just a farmer, and you know how difficult farming is. I struggled to take care of my family and when my children fall sick of malaria, I go to the pharmacy and drugs oh used traditional medicine to cheat them. Seeking care in the hospital is very expensive. The last time I took my second child to the hospital, I ended up spending all my savings without the child being cured. the doctors kept asking us to go for one test or the other without adequately diagnosing the child. Finally, we return to the village and resort to traditional medicine, and the child is well.

An excerpt from the interview with the doctor in Ugep;

people in the Central Cross River are Poor. Most of them are farmers surviving on subsistence farming and money from the sale of produce from their farms. The money they make is not enough for them to take care of themselves and their family. So telling him to come and visit the hospital means other family members going hungry for a while. So when a member of their household is sick, they visit a roadside pharmacy and buy over the counter drugs. Most of them self diagnose or use traditional medicine the chip themselves. Most of the cases we get in the hospital are severe cases where family members have tried treating their sick once, which traditional medicines over the counter drugs and the sickness worsens. I have many cases of people owing my hospital for treatment rendered but have not been able to pay me. You cannot do anything because most of them do not have money. They are only struggling to survive.

The pharmacist also argued dead;

The communities around here are rural, and people who survive on agriculture are poor, and most of them depend on what their family members outside the villages sent to them. So the little money they make from farming or they are sent it is just to survive and take care of members of their family when they are sick they either use traditional medicine or come and meet me to give them something cheap that will help relieve the cold, headache, they are feeling. So it is only when cases become serious that you see them run to us for help.

And except the interview which if you female civil servant in Ekuri revealed thus;

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People in this community are poor, so going to the hospital to seek care for malaria is complex. They have to survive first. So even we that are civil servants, until the introduction of the National Health insurance scheme, I hardly take my family members to the hospital because of the astronomical fees that General Hospital here makes you spend. So when any of my children have malaria, I patronize over the counter drugs for treatment. So you can imagine me that's is employed I can hardly afford to take my family members to the hospital when they are sick of malaria come to talk of ordinary farmers.

This result is supported by that of Tiruneh, Gebregergs and Birhanu (2018), whose study on determinants of delay in seeking treatment for malaria found that income was a significant factor that causes a delay in seeking treatment. Turuse, Gelaye, and Beyen (2014) India study found that monthly income is among the factors that determine the delay in malaria prognosis and treatment among under-five children in southern Ethiopi.

4. Conclusion

This study has affirmed that belief in traditional medicine and household income are causal factors in the delay in seeking treatment for Malaria in Central Cross River state. Hence, there is needed for community-based malaria prevention and diagnosis education for community members by the government and its agencies and other health organizations. There is also a need to adequately strengthen and equip Primary Health centres and malaria outreach programs in the study area.

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