

Knowledge of Neglected Tropical Diseases (NTDs) Among Adult Residents in Moro Local Government Area, Kwara State, Nigeria

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Abstract:-

➤ *Background of the study*

Neglected tropical diseases are a group of diseases that occur in the tropical and subtropical parts of the world. These neglected tropical diseases include leprosy, chagas diseases, trachoma, dracunculiasis, rabies, buruli ulcer, soil transmitted helminths etc. These illnesses are common among people who have frequent contact with vectors, domestic animals, livestock and unclean sources of water. They also have a close association with poverty and are associated with filthy conditions. Unfortunately, Sub-Saharan African countries are the poorest, bearing the highest burden of NTDs.

➤ *Methods*

This study was a descriptive cross-sectional study to access the level of knowledge and awareness of NTDs among adult residents of Moro LGA, Kwara State. Multistage sampling technique was used to select respondents from the selected communities for this study in Moro LGA. The quantitative data was collected through the use of questionnaire from the respondents to access the knowledge on NTDs among adults in Moro LGA, Kwara state. The questionnaire was thoroughly checked for completeness and coded for analysis using Epi-info statistical software package version 3.5.1.

➤ *Results*

Almost all 469 (93.8%) of the respondents have heard about NTDs. The most common sources of information were media 353(75.3%) and internet 110 (23.5%) respectively. About half 237 (47.4%) of the respondents don't know the name of any NTDs specifically, while close to one third 137 (27.4%) know about trachoma and less than one tenth 6 (1.2%) know about the leprosy. Close to half 231 (46.2%) of the respondents agreed that NTDs can be prevented by improved environmental sanitation while few 18 (3.6%) said that mosquito nets can be used to prevent NTDs.

➤ *Conclusion*

The public should participate in discussions and awareness about each of the high burden NTDs in order to raise public knowledge and encourage preventive and control measures.

Keywords:- *Neglected Tropical Diseases, NTDs, Awareness, Knowledge.*

I. INTRODUCTION

Neglected tropical diseases (NTDs) are a group of diseases that occur in the tropical and sub tropical parts of the world. These neglected tropical diseases include leprosy, chagas diseases, trachoma, dracunculiasis, rabies, buruli ulcer, soil transmitted helminths etc [1].

These illnesses are common among people who have frequent contact with vectors, domestic animals, livestock and unclean sources of water. They also have a close association with poverty and are associated with filthy conditions [1]. Unfortunately, Sub-Saharan African countries are the poorest, bearing the highest burden of NTDs [2].

According to reports, over 500 million people in Sub-Saharan Africa are at risk of NTDs, with Nigeria bearing the highest burden of NTDs in Africa [3]. Therefore, it is impossible to underestimate the impact of NTDs on the development of Nigeria. NTDs place great pressure on pregnancy outcomes, infant development, and worker productivity [4]. Despite the fact that NTDs are treatable and controllable, they continue to ruin countless lives, hinder children from attending school and keep endemic communities trapped in the cycle of poverty [5].

Due to the prevalence of NTDs in underprivileged groups and their effects on the clinical, social and economic spheres, seventeen NTDs have been singled out by the WHO as being of particular relevance [6]. These include soil transmitted helminthiasis, chagas diseases, yaws, rabies, food borne trematodiasis, schistosomiasis, dracunculiasis, human african trypanosomiasis, trachoma, lieshmaniasis, taeniasis, echinococcosis, buruli ulcer, leprosy, dengue fever and lymphatic filariasis [6]. In Nigeria, about 121 million people are at risk of lymphatic filariasis, 29 million people are at risk of schistosomiasis, 38 million people are at risk of hook worm and 55 million people are at risk of ascariis [7].

II. METHODS

➤ Study Area

This study was conducted among adult residents in Moro Local Government Area, Kwara State. Kwara state which is located within the north central zone of Nigeria. Moro LGA is one of the 16 LGAs in the state which has its administrative headquarters in Bode-Saadu. There are 17 wards in Moro LGA with 624 villages/towns which covers the area of 3,272 km and a population of 108,792 at the 2006 census. Moro LGA possess 5 districts which includes: Eji-dongari, Lanwa, Malete, Olooru and Ipaieye with latitude of 8°43'0"N and longitude of 4°17'59"E. The major religions of the inhabitants are Islam, Christianity and Traditional believers in some settlements. Moro LGA have numerous primary schools and 11 Government secondary Schools.

➤ Study Design

This study was a descriptive cross-sectional study to assess the level of knowledge and awareness of NTDs among adults residents of Moro LGA, Kwara State.

➤ Sampling Technique

Multistage sampling technique was used to select respondents from the selected communities for this study in Moro LGA.

Stage 1: Simple random sampling techniques by balloting was used to select 3 out of 30 communities in Moro LGA, Kwara state and proportion allocation was done for each of the selected communities.

Stage 2: Simple random sampling technique was used to select 10 households from the selected communities and the proportion allocation was done for each of the households.

Stage 3: Systematic sampling technique was used within each household to select the respondents using a list of the houses in each selected households as the sampling frame (this was done after which the households have been numbered). The total number of respondents in each household was divided by the allocated proportion of the total sample size to obtain the sampling interval [K]. The first respondent was selected randomly after which the K^{th} interval was used.

➤ Study Instrument

The quantitative data was collected through the use of questionnaire from the respondents to assess the knowledge on NTDs among adults in Moro LGA, Kwara state.

➤ Data Analysis

The questionnaire was thoroughly checked for completeness and coded for analysis using Epi-info statistical software package version 3.5.1. Descriptive statistics was used to summarize the data on respondent characteristics using tables, graphs and charts. The level of significance for the statistical tests was set at 0.05.

➤ Ethical Approval

The ethical approval was obtained from the Ethics Review Committees of Kwara State University, Malete, Kwara State and the Kwara State Ministry of Health, Ilorin.

III. RESULTS

Table 1: Socio-demographic characteristics of the respondents

Socio-demographic data	Frequency	Percentage (%)
Age		
18-22	91	18.2
23-27	108	21.6
28-32	135	27.0
33-37	94	18.8
38 and above	72	14.4
Total	500	100.00
Gender:		
Male	286	57.2
Female	214	42.8
Total	500	100.00
Marital status		
Single	168	33.6
Married	282	56.4
Divorced	21	4.2
Widowed	17	3.4
Separated	12	2.4
Total	500	100.00
Education		
Primary	84	16.8
Secondary	174	34.8
Tertiary	129	25.8
Arabic	61	12.2
None	52	10.4
Total	500	100.00
Ethnicity		
Yoruba	347	69.4
Igbo	39	7.8
Hausa	62	12.4
Others	52	10.4
Total	500	100.00
Occupation		
Student	112	22.4
Civil servant	63	12.6
Trader	166	33.2
Farmer	73	14.6
Others	86	17.2
Total	500	100.00

Table 1 above shows the socio-demographic characteristics of the study. Less than one third 135 (27.0%) of the respondents are in the age group 28-32 years old while more than one tenth 72 (14.4%) were above or equal to 38 years.

More than half 282 (56.4%) of the respondents are married while less than one tenth 12 (2.4%) of the respondents are separated.

More than one third 174 (34.8%) of the respondents had secondary school Education while more than one tenth 52 (10.4%) are not educated.

More than two third 347 (69.4%) of the respondents are Yoruba while about one tenth 52 (10.4%) of the respondents are neither Yoruba, Igbo nor Hausa.

More than third 166 (33.2%) of the respondents are traders while more than one tenth 63 (12.6%) of the respondents are civil servants.

Table 2: Respondents knowledge on neglected tropical diseases (NTDs)

Knowledge variables	Frequency	Percentage (%)
Heard about NTDs		
Yes	469	93.8
No	31	6.2
Total	500	100.0
Source of Information about NTDs		
Media	353	75.3
Internet	110	23.5
Family and friends	52	11.1
School	64	13.6
Religious bodies	31	6.6
Market	72	15.4
Others	14	3.0
Multiple reponses (n=469)		

Table 2 above shows the level of knowledge of the respondents on neglected tropical diseases. Almost all 469 (93.8%) of the respondents have heard about NTDs. The most common sources of information were media 353(75.3%) and internet 110 (23.5%) respectively.

Table 3: Respondents knowledge on different NTDs

Which NTDs do you know	Frequency	Percentage (%)
Trachoma	157	27.4
Schistosomiasis	52	10.4
Rabies	33	6.6
Onchocerciasis	8	1.6
Human African Trypanosomiasis	11	2.2
Lymphatic filariasis	16	3.2
Leprosy	6	1.2
I don't know	237	47.4
Total	500	100.00

Table 3 above shows the respondents knowledge on different NTDs. About half 237 (47.4%) of the respondents don't know the name of any NTDs specifically, while close to one third 137 (27.4%) know about trachoma and less than one tenth 6 (1.2%) know about the leprosy.

Table 4: Respondents knowledge on the prevention of NTDs

How can NTDs be prevented	Freequency	Percentage (%)
Improved environmental sanitation	162	32.4
Clean water	231	46.2
Mosquito nets	18	3.6
I don't know	89	17.8
Total	500	100.00

Table 4 below shows the respondents knowledge on the prevention of NTDs. Close to half 231 (46.2%) of the respondents agreed that NTDs can be prevented by improved environmental sanitation while few 18 (3.6%) said that mosquito nets can be used to prevent NTDs.

IV. DISCUSSION

Public perception, knowledge and awareness of the various neglected tropical diseases play a significant role in determining the approaches and strategies for their prevention and control. The general public awareness of NTDs may affect their attitude towards the prevention of these diseases.

Majority (93.8%) of the respondents heard about NTDs, this is compared to another study [8] in which (73.1%) of the respondents knew about NTDs. The high level of knowledge about NTDs in this study is due to the effort of the government and the private sector in raising awareness about neglected tropical diseases. Through various channels, a lot of energy has been put in creating awareness on NTDs, this will enable communities know more about this group of diseases and how to prevent them.

About three quarter (75.3%) of the respondents heard about NTDs through the media, this is more than the study [8] in which more than one third (39.6%) of the respondents also heard about NTDs through the media. The reason for the difference is that this study was carried out in an NTDs endemic area so much effort has been put to create awareness about NTDs in the area.

Close to half (47.4%) of the respondents didn't know the name of any NTDs specifically. This might be because during awareness campaigns on NTDs, specific NTDs are not usually are not usually discussed. During awareness on NTDs, each NTDs should be discussed comprehensively so that the public can have comprehensive knowledge about each of the various NTDs.

More than one fifth (27.4%) of the respondents knew about trachoma as it was the NTDs known most among the respondents and it is because trachoma has a high prevalence in the study area. Few (2.2%) of the respondents had knowledge about human african trypanosomiasis which is consistent to another study [9] in which also few (2.1%) of the respondents knew about human African trypanosomiasis.

Close to half (46.2%) of the respondents said that NTDs can be prevented by having access to clean water and (32.4%) said NTDs can be prevented through improved environmental sanitation. Their knowledge on the various ways of preventing NTDs is due to their risk perception and knowledge about these diseases, therefore more awareness on the various NTDs should be created also the various ways of preventing and controlling this group of diseases should be made known to the public and community especially in NTDs endemic communities.

V. CONCLUSION

Intriguingly, the respondents had little knowledge about each of the neglected tropical diseases that are still widespread in the area. Therefore it is important for the government and other interested parties to start carrying out activities that will improve public awareness about each of the neglected tropical diseases. Without doubt, this will make it easy to apply preventive and control measures effectively. It is therefore advised that the public participate in discussions and awareness about each of the high burden NTDs in order to raise public knowledge and encourage preventive and control measures.

Ethics Approval and Consent to Participate

Not Applicable

Consent to Publish

Not Applicable

Availability of Data and Material

The data set from the study are available to the corresponding author upon request.

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