

Farmers' Attitude to Nigerian Guinea Worm Eradication Health Education Programmes in Orire Local Government Area of Oyo State, Nigeria

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ABSTRACT This study focused on farmers attitude towards Nigerian Guinea Worm Eradication Health Education Programmes (NIGEP) in Orire Local Government Area of Oyo State, Nigeria. One hundred and twenty farmers were selected by simple random sampling through an interview schedule and data was collected using a set of pre-determined questions. Findings revealed that 95.8 percent farmers perceived that guinea worm disease had effect on the level of agricultural production. About 71.7% had positive attitude towards Nigerian Guinea Worm Eradication Health Education Programmes. The result further showed that 72.5 percent of the farmers had positive perception of the activities of health educator. Gender, age, education level, marital status and religion did not significantly influence farmers' attitude towards NIGEP'S health education programmes. Also, there was a significant and positive correlation between farmers' perception on health educator activities and farmers' attitude towards NIGEP health education. On the basis of these findings, it was recommended that health education should be intensified to stem the spread of guinea worm. Besides, people living in the rural communities should be encouraged to make contributions towards solving known problems. Finally, government and Non-governmental organizations should provide financial assistance towards provision of more boreholes and hand-dug wells since safe source of water is universally acknowledged as the final panacea to water-borne diseases, including guinea worm.

INTRODUCTION

According to Norman (1997), the prospect of reducing food insufficiency in sub-Saharan Africa is threatened by a number of factors which include increasing population pressures, extreme poverty, the presence of many human diseases like malaria, guinea worm, tuberculosis, river blindness and AIDS. Others are poor soils and uncertain rainfall, changing land tenure system and cattle; inadequacies of education and public health systems; poorly developed physical infrastructure; weakness in research and technology delivery system. From the foregoing, the task of developing agriculture in Africa and in Nigeria especially remains an arduous one. However, agricultural extension is an important component of agriculture and rural development (Franco, 1974).

In Nigeria, guinea worm has been a serious health problem afflicting the people, most of whom are small-holder farmers, living in the rural areas. These smallholder farmers, according to Olayide (1980) produce the bulk of food and fibre for the country. The horror and misery of guinea worm with its attendant negative effect on

agricultural production, necessitated the establishment of the Nigerian Guinea Worm Eradication Programmes (NIGEP) in 1988.

Guinea worm disease is prevalent among the rural communities where people lack adequate access to safe sources of drinking water (Kale, 1977; Ilegbodu et al., 1991; Buki, 2000). The need to eradicate this scourge is a global effort generally termed as Global Dracunculiasis Eradication Campaign (GDEC). The establishment in Nigeria of the branch of this global campaign against guinea worm took place in 1988 with Global 2000 an outfit of the Carter Presidential Center playing the pivotal co-ordinating role. Nigerian Guinea Worm Eradication Programme (NIGEP) is structured into five levels as follows: the National Secretariat, Zonal, State, Local Government Area and Village level. Each level is made up of an active team, both in the office and on the field, which carries out specific duties.

Guinea worm Eradication Programme has a strong component of health education permeating and facilitating other major interventions which include:

- i. Surveillance and case reporting;
- ii. Filters for drinking water;

- iii. Water supply interventions, including improving existing sources and constructing new, safer water sources; and,
- iv. Case management of guinea worm patients (NIGEP Statistical Summary, 1999).

These major interventions are premised on the fact that transmission of guinea worm disease is clearly linked with an important daily routine activity in the endemic communities, through fetching of water for domestic use which includes drinking. Water is often obtained from a variety of sources including those that are known to be contaminated. In rural communities where people are largely tradition-bound and illiterate, there is an urgent need to provide health education. Health education component of NIGEP like all other educational services, including agricultural extension education, aims to change behaviour of people in three ways, namely, attitude, knowledge and skill (Fenley and Williams, 1974; Williams et al., 1984).

Health education, in the short term, is capable of assisting people to change those behaviours such as wading by an infected person who has open ulcer, in a pond where villagers fetch their water, and drinking water that has been contaminated by guinea worm eggs, where Cyclops (water fleas), the vector of *Dracunculus medinensis* abound, and hence reducing guinea worm infection. (WHO, 1992; Kareem, 2000).

Adegeye et al. (1985) found a link between good drinking water, good health and farmers' agricultural productivity. They said: "one other importance of water in agricultural production which is often overlooked is its role in the health of farmers and their families." Contaminated water is involved in the transmission and spread of guinea worm disease. Increasing people's access to alternative and safer sources of water such as hand-dug wells and boreholes has not been easy because of dwindling financial assistance to most African countries. Health education in the short-term will equip people to see the relationship between pond water and guinea worm disease and how to avoid it. (Abolarin, 1981).

The goal of eradicating guinea worm disease by 1995 was not realized. The total number of endemic villages in 1999 was one thousand four hundred and thirty two (1,432) (NIGEP, 1999). In the same year, Orire Local government Area recorded four hundred and ten cases (410) making it the second most endemic local government area in Oyo state. Cases of guinea

worm are still persisting in the local government area. There is a need to assess farmers' attitude to NIGEP's health education.

Objective of the Study

The general objective of the study is to assess farmers' attitude towards Nigerian Guinea Worm Eradication Programme's Health Education Programme in Orire local government area of Oyo State, Nigeria.

The Specific Objectives are to:

1. determine personal characteristics of the respondents such as age, gender, marital status, religion and educational attainment.
2. determine farmers' attitudes to NIGEP health education.
3. ascertain farmers' perception of the effect of guinea worm disease on their level of agricultural production.
4. determine farmers' perception of NIGEP's health education activities

METHODOLOGY

The Study Area: The study was carried out in Orire Local Government Area of Oyo State, Nigeria. The local government land area extends from Ipeba river along Ogbomoso/Oyo road to Dogo junction near Igbeti. The total land area is about 2,040 square kilometers. Because of its size, it shares boundaries with seven local government areas and one state. It is bounded in the North by Irepo Local Government Area, while to the West it shares boundaries with Oyo East local government and Atiba local government areas. To the East, it is bounded in the extreme North-eastern part by Kwara State; in the South east by Surulere, Ogbomoso North, Ogbomoso South and Ogo-Oluwa local Government Areas respectively. According to the 1991 population census, there were 93,000 inhabitants but with an estimated annual growth of two and a half percent, the population of the area is now 121,000.

The main occupation of the people in the local government area is farming. They produce a lot of agricultural products including yam, cassava, cowpea, guinea corn and others which are sold in three notable farmers' markets at Adafila, Tewure and Iluju. Orire local Government Area is guinea worm endemic having the status of being the second most endemic area in Oyo state in 1999 (NIGEP Statistical Summary, 1999).

Sampling Procedure and Sample Size:

Multi-stage random sampling was used in selecting one hundred and twenty respondents for the study. Orire Local Government Area was purposively selected for this study because of persistent cases of guinea worm and the presence of the Nigerian Guinea Worm Eradication Programme intervention activities. The population of this study include all the farmers of endemic communities within the local government area where monthly surveillance activities were still being carried out (NIGEP, 1999). A list of thirty-seven endemic villages were collected from Nigerian Guinea Worm Eradication Programme (NIGEP) South-West Zonal Office, Ibadan. A table of random number was used in selecting ten villages from the list. These villages are: Alangua, Iro-Ogadun, Adafila, Eleyele, Daodu, Alaje, Alawodi, Kanoni and Alawowo.

The lists of farmers' households of all these ten communities were collected from their Village Based Health Workers (VBHW). From each of the list, twelve farmers were randomly selected. There were one hundred and twenty farmers for the study. A set of pre-determined questions were asked to collect primary data from the respondents in an interview schedule. The data were analyzed and interpreted using frequency counts, means and percentages, while hypotheses were tested using Chi-square and Pearson product Moment Correlation coefficient (PPMC).

RESULTS

The personal characteristics considered were age, gender, marital status, religion and educational level (Table 1).

On age, 79.2% of the farmers were 45 years old and below 20.8% were above 45 years.

Guinea worm disease affect's both males and females, the findings showed that 69% of the farmers were males and 31% of them were females. On marital status of the farmers, 69% were married, 21.7% were single, while 9.2 were divorced. Married and single adults in a farming community feel the effect of serious health problems on their productivity and means of livelihood. Majority of the farmers (80%) were Muslims, 13.3% were Christians while 6.7 were traditional religion worshippers.

The level of education as shown in table 1 showed that 70% of the farmers did not have any formal education, 2.5% attended adult literacy classes, while 27.5% attended primary schools.

Table 1: Frequency distribution of personal characteristics of farmers

<i>Variable</i>	<i>Frequency</i>	<i>%</i>
<i>Age</i>		
15-20	14	11.6
21-25	24	20.0
26-30	14	12.5
31-35	7	5.8
36-40	21	17.5
41-45	21	17.5
Above 45	25	20.8
Total	120	100.0
<i>Gender</i>		
Male	83	69.0
Female	37	31.0
Total	120	100.0
<i>Marital Status</i>		
Single	26	21.7
Married	83	69.1
Divorced	11	9.2
Total	120	100.0
<i>Religion</i>		
Christianity	16	13.3
Islam	96	80.0
Traditional	8	6.7
Total	120	100.0
<i>Educational Level</i>		
No formal education	84	70.0
Adult Literacy	3	2.5
Primary Education	33	27.5
Total	120	100.0

Attitude of Farmers towards NIGEP Health Education

The attitude of farmers towards NIGEP Health Education is shown in Table 2.

Table 2: Attitude of farmers toward NIGEP health education

<i>Means of Farmers</i>	<i>Frequency</i>	<i>%</i>
> 2 (Positive/favourable)	86	71.7
< 2 (Negative/unfavourable)	34	28.3
Total	120	100.0

The study revealed that 71.7% farmers had positive (favourable) attitude towards NIGEP's health education, while only 28.3% had negative attitude (unfavourable) towards NIGEP health education as shown in table 2.

Farmers' Perception on the Effect of Guinea Worm Disease on the Level of their Agricultural Production

Farmers' perception on the effect of guinea worm disease on the level of their agricultural production revealed that 95.8% of them perceived that guinea worm disease had effect on the level of agricultural production, while 4.3% of them perceived that guinea worm disease had no effect on the level of their agricultural production, as shown in table 3.

Table 3: Farmers' perception about NIGEP programmes/activities

<i>Means of Farmers</i>	<i>Frequency</i>	<i>%</i>
> 2 positive perception	115	95.8
< 2 Negative perception	5	4.2
Total	120	100.0

From table 4, age, gender, marital status, religion had not significantly influenced farmers attitude to NIGEP health education. This implies that people of different age, gender, marital status, religion and educational level had similar attitude towards NIGEP's health education.

Table 4: Chi-square (χ^2) analysis of farmers attitude to health education and personal

<i>Variable</i>	χ^2	<i>Df</i>	<i>P</i>	<i>Remark</i>
Age	3.096	7	0.876	NS
Gender	4.028	2	0.133	NS
Marital Status	0.463	2	0.793	NS
Religion	1.086	2	0.581	NS
Educational Level	0.246	2	0.884	NS

Table 5 showed that the perception of the activities of health educators significantly influenced farmers attitude in NIGEP's health education. Also, the activities of educators or teachers are very important to creating interest of people in the educational programmes and bringing about positive changes in attitude, knowledge and skills.

Table 5: Pearson product moment correlation coefficient of farmers perception versus farmers attitude

	<i>Farmers Perception</i>	<i>Farmers Attitude</i>
Farmers perception	1.000	0.546*
Farmers attitude	0.546***	1.000
N	120	120

DISCUSSION

Age is an important factor to farmers' agricultural productivity. Declining agricultural production has been attributed to a number of factors including ageing nature of farming population. Guinea worm victims in endemic communities include all age categories except children who were still sucking their mothers' breast. This implies that majority of farmers are strong, able bodied men and women who can contribute substantially to agricultural production.

With this low educational level prevalent in the study area, it is not surprising that the majority of them living in guinea worm endemic communities often fail to see the link between guinea worm and contaminated water.

In addition, findings revealed that 72.5 percent farmers had positive perception of the activities of health educators, while 27.5 percent had negative perception of their activities. This indeed implies that the majority of respondents considered as very good the activities of health educators. However, there is need for health educators to improve on clarity of expression, friendliness, punctuality and uses of teaching materials to reach more audience since 58.3 percent, 61.7 percent, 46.7 percent and 47.5 percent respectively acclaimed that health educators were good with respect to these attributes.

Furthermore, findings revealed that 71.7% farmer had positive attitude towards NIGEP's health education and 28.3% had negative attitude towards it.

Also, 95.8 percent farmers perceived that guinea worm disease had effect on the level of agricultural production, while 4.2 percent did not perceive the effect of guinea worm disease on the level of their agricultural production.

Hypotheses testing showed that gender, age, educational level, marital status and religion did not significantly influence farmers' attitude to NIGEP's health education. However, there was a significant positive correlation between farmers' perception of the activities of health educators and farmers attitude towards NIGEP's health education.

This study was prompted by the need to investigate farmers attitude to NIGEP's health education based on two premises that the spread of guinea worm disease is as a result of simple human behaviour related to water use and the fact that government financial resources have dwindled and provision of adequate safe water

sources (boreholes and hand- dug wells) is not in sight in the immediate future. (Kareem, 2000).

Health education, which is a strong component of guinea worm disease eradication interventions, is believed to be capable of encouraging people to behave in a way that will help prevent the spread of guinea worm disease (Nwosu, 1989). Being able to see the link between contaminated pond water and guinea worm disease and behaving in a way to avoid drinking contaminated water offers a prospect of guinea worm disease eradication, while financial assistance from governments and non-governmental organizations towards provision of safe water sources is being awaited. (Berger et al., 1989)

The majority of farmers perceived that guinea worm disease has effect on the level of their agricultural production. Also farmers responded very well to Nigerian Guinea worm Eradication Programme's health education as indicated by the percentage of farmers with positive attitude towards health education. Health educators' activities and their personal attributes enhanced positive changes in attitudes and behaviours of their audience (farmers).

Finally, farmers' attitude to health education was not significantly related to farmers personal characteristics. This indeed implies that guinea worm is a disease that affects all people where there is no access to good water. Hence, there is a need for all and sundry to embrace programmes designed for its eradication.

RECOMMENDATIONS

1. NIGEP's health education should be intensified to provide wider coverage in endemic communities so that farmers' attitudes and behaviours can be changed positively to embracing good health to ensure complete eradication of guinea worm scourge.
2. Governments and non-governmental organizations should assist endemic rural communities by providing funds that would be used to provide more boreholes and hand-dug wells since safe water is universally acknowledged to be a final panacea to waterborne diseases including guinea worm.
3. The People living in rural communities should be made to realize the importance of making contributions towards solving known problems in their communities.

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