

AWARENESS AND UTILIZATION OF INSECTICIDE TREATED BED NETS AMONG CLIENTS OF A PRIMARY HEALTH CARE CENTER IN A RURAL COMMUNITY

Dr Abdullahi M L^{*1}, Dr Mohammed UM^{*2}

^{*1}Lecturer, Unicaf University Zambia and Chief Medical Officer, The Federal Polytechnic Medical Centre, Kaura Namoda, Zamfara State, Nigeria.

^{*2}Consultant Obstetrician and Gynaecologist, Turai Umaru Yar'adua Women and Children Hospital, Katsina State, Nigeria.

ABSTRACT

The aim of the study was to determine the level of awareness and utilization of insecticide treated bed nets (ITBNs) among clients of a primary health care clinic. The study was carried out at the primary health care centre in Kaura Namoda, Northwest Nigeria. Kaura Namoda has an area of 868 Km square and population of about 281,367 (National Population Commission 2006). The town is the Northern railway terminus that links north to South. Data was collected using pre validated questionnaire by considering all possible variables according to information developed on the basis of relevant literature. Fifty clients (50) (all above 18 years) visiting the primary health care centre were drawn using simple random sampling method. Cross sectional research study was used to evaluate the level of awareness and utilization of ITBN among clients of the primary health care facility. The study findings revealed that 72% of the study population was aware of ITBNs, 48% of the study population knew about ITBNs through the media while 22% and 20% knew about ITBNs through the hospitals and NGO advocacy respectively. 96% of the study population believed that ITBNs protects from malaria. 72% of the respondents use ITBNs while 28% don't, reasons for usage include decrease number of mosquitoes bite (56%) and smooth sleep (16%), while reasons for not using the nets include non availability and inconvenience due to heat in 20% and 2% of the study population respectively. At the end of the study, the researcher, stressed on the need to make the ITBNs available and improve the convenience with which people can use the nets in terms of air flow and using non irritable chemicals.

I. INTRODUCTION

Malaria is an infection transmitted by female anopheles mosquitoes. It is characterized by fever, headache, chills and rigor and occasionally vomiting. There are four major strains of plasmodia that causes malaria. These include plasmodium falciparum, plasmodium vivax, plasmodium ovale and plasmodium malariae. Malaria is prevalent throughout Nigeria with transmission being affected by climate and geography (WHO, 1998), increased drug resistance and the lack of adequate vector control measures (Quakyi et al, 2000). Malaria constitute a major health burden in sub-Saharan Africa especially Nigeria. About 15% of Nigeria's population are exposed to malaria at least once a year (RBM, 2005). Nigeria is responsible for 25% of malaria burden in Africa (DFID, 2009). Half of world population is exposed to malaria with annual global incidence of 250 million cases resulting in 860,000 deaths mostly in children from Africa (WHO, 2010). In Nigeria, malaria accounts for 30% of maternal mortalities and 11% of childhood mortalities while 60% of outpatient consultations are for malaria.

Some of the predisposing factors to malaria include poor environmental sanitation which allows breeding of mosquitoes and continuous transmission of malaria. The WHO in conjunction with various governments has developed strategies to combat malaria. These include provision of insecticide treated bed nets (ITBN), improved environmental sanitation and affordable, accessible and quality health care.

In a study to evaluate the awareness and utilization of ITBN among 250 clients of ante natal care in a tertiary health institution in Sokoto, north west Nigeria found out that 66.8% of the clients has post primary education and were aware of ITBN and are using it while 58.8% are not using it due to non

availability and 29.4% are not using it due to inconvenience (Isah et al,2009). Since the inception of roll back malaria, governments and NGOs have been making efforts to create awareness and increase utilization of insecticide treated bed nets. This study was carried out to evaluate the awareness and utilization of ITBN among clients in a primary health care center in kauraNamoda, North west Nigeria.

II. METHODOLOGY

50 clients were chosen using simple random sampling. They were administered a closed ended pre-validated questionnaires. The questionnaires were filled by those who are literate and for those who are not; it was filled by 2 trained research assistants. The questionnaires were composed of four sections.

Section A is comprised of questions about personal information including Age, sex, Educational level and occupation. Section B is comprise of questions about awareness of ITBN which include if a person is aware of ITBNs, if yes, how does the person knew about it, does the person think it protects? If yes why, if not why not. Sections C are questions about utilization of ITBNs which include if a person is using it? If yes, why, if not, why not. The last section, section D, will be for any comment by the respondents.

III. RESULTS

Table 1

Age		
Age in year's	frequency	percentage
18-28	12	24%
28-38	28	56%
38-48	7	14%
48-58	3	6%

Table 2

Educational level		
Educational level	Frequency	Percentage
Non literate	10	20%
Primary level	13	26%
Secondary level	12	24%
Post secondary	15	30%

Table 3

Sex		
Sex	Frequency	Percentage
Male	24	48%
Female	26	52%

Table 4

Awareness about ITBNs		
Response	Frequency	Percentage
Yes	36	72%
No	14	28%

Table 5

How do you know about ITBNs?		
Response	Frequency	Percentage
Hospital	11	22%
Media	24	48%
N G O Advocacy	10	20%

Table 6

Do think ITBNs protects from malaria?		
Response	Frequency	Percentage
Yes	48	96%
No	2	4%

Table 7

Do you use ITBNs?		
Response	Frequency	Percentage
Yes	36	72%
No	14	28%

Table 8

If yes why?		
Response	Frequency	Percentage
Decrease number of Mosquitoes' bites	28	56%
Smooth sleep	8	16%

Table 9

If not, why not?		
Response	Frequency	Percentage
Non availability	10	20%
Inconvenience due to		
Heat	2	4%
Any other comment	0	0%

IV. DISCUSSION

Majority of the patients seen are between the ages of 28-38 years as shown from table 1 amounting to 56% of the study population which falls within the productive age group. Most of the study population are literate amounting to 80% of the study population 20% were not literate as shown in table 2. 48% of the respondents were male while 52% were female (table 3).

72% of the study population were aware of ITBNs; this could result from literacy rate of the study population and agree with the study conducted to evaluate the awareness and utilization of ITBNs among pregnant women in a tertiary health institution in sokoto, Northwest Nigeria (Isah et al, 2009) in which

68.9% have post primary Education and are aware of ITBNs are using it. 48% of the study population knew about ITBNs through the media while 22% and 20% knew about ITBNs through the hospitals and NGO advocacy respectively. This indicates that there is need to increase awareness as it is the best medium to make people aware of ITBNs and to enlighten and educate them about it. 96% of the study population believe that ITBNs protects from malaria (table 6) while only 45 don't. Table 7 indicates that 72% of the respondents use ITBNs while 28% don't, reasons for usage include decrease number of mosquitoes bite (56%) and smooth sleep (16%) as shown in table 8 while reasons for not using the nets include non availability and inconvenience due to heat in 20% and 4% of the study population respectively as shown in table 9.

There is therefore, need to make the ITBNs available and improve the convenience with which people can use the nets in terms of air flow and using non irritable chemicals

V. CONCLUSION

Malaria is endemic in most countries of Africa and Asia. WHO in collaboration with governments have been making efforts to curb the scourge. Insecticide treated bed nets are considered one of the most effective ways of preventing malaria and this study intends to evaluate the level of awareness and utilization of insecticide treated bed nets among clients of a primary health care clinic in kauraNamoda, local government, Zamfara state, North west Nigeria.

VI. REFERENCES

- [1] WHO Disease outbreak report, 1998
- [2] Quakyi IA, Leke RG, Befidi-Mengue R, Tsafack M, Bomba-Nkolo D, Manga L, Tchinda V, Njeungue E, Kouontchou S, Fogako J, Nyonglema P, Harun LT, Djokam R, Sama G, Eno A, Megnekou R, Metenou S, Ndountse L, Same-Ekobo A, Alake G, Meli J, Ngu J, Tietche F, Lohoue J, Mvondo JL, Wansi E, Leke R, Folefack A, Bigoga J, Bomba-Nkolo C, Titanji V, Walker-Abbey A, Hickey MA, Johnson AH, Taylor DW. The epidemiology of Plasmodium falciparum malaria in two Cameroonian villages: Simbok and Etoa. *Am J Trop Med Hyg.* 2000 Nov-Dec;63(5-6):222-30. Erratum in: *Am J Trop Med Hyg.* 2003 Mar;68(3):266. Ndoutse, L [corrected to Ndountse, L]. PMID: 11421368.
- [3] Rool Back Malaria implementation. Revised 2005 desk top review of implementation in sokoto state, Nigeria. 3:3-1.3.2
- [4] DFID Report on Malaria in Nigeria, 2009
- [5] WHO Global report on Malaria, 2010
- [6] Isah AY, Nwobodo EI. Awareness and utilization of insecticide treated mosquito nets among pregnant mothers at a tertiary health institution in north-western Nigeria. *Niger J Med.* 2009 Apr-Jun;18(2):175-8. doi: 10.4314/njm.v18i2.45059. PMID: 19630324.