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# Practice of Malaria Prevention Strategies among Mothers of under Five in Ogun State, Nigeria

Hauwa Banetnat **ILIYA**
Home Economics Department
Federal College of Education, Zaria
iliyahb@yahoo.com
08051140394

***NOFIU** Oluwatobi Daniel
Department of Physical and Health Education
Faculty of Education
Ahmadu Bello University, Zaria
daniel4gem@gmail.com,
+2347066053547

**AKOREDE**, Seun Nurudeen
Department of Health Promotion and Environmental Health Education
Faculty of Education
University of Ilorin, Nigeria.
+2348130576223

**DODO** Rahinatu
School of Nursing
Ahmadu Bello University, Zaria
08035956897

**AYUBA** Samndi Christiana
Department of Physical and Health Education
Ahmadu Bello University, Zaria
08069591600

**&**

**MUSA** Hannatu Paul
Department of Physical and Health Education
Faculty of Education
Ahmadu Bello University, Zaria
08035956897

**** Corresponding author: 07066053547, daniel4gem@gmail.com***

***Abstract***
*The study assessed the practice of malaria prevention strategies among mothers of under five in Ogun state, Nigeria. This study employed ex-post facto research design in assessing the practice of malaria prevention strategies among mothers of under-five in Ogun State, Nigeria. The population of this study comprised of 641,445 mothers of under-five in Ogun State, Nigeria. A multi-stage sampling approach was used to select the respondents using a stratified random sampling approach, simple random sampling technique and convenient sampling techniques. The instrument used for data collection was a structured questionnaire. Two hundred and sixteen (216) copies of questionnaire were validated and used for the analyses. Data collected were analyzed using simple percentage, frequency count, one sample t-test analysis at 0.05 alpha level. The study revealed that mothers of under-five do not significantly practice malaria prevention strategies. Based on the findings, it was concluded that mothers of under-five in Ogun State do not practice all the malaria prevention strategies and practice of mothers of under-five towards malaria prevention strategies are not good. It was recommended that there is need for a well packaged malaria health education intervention which could address and promote a constant practice of malaria preventive strategies among mothers of under-five children by government and non-governmental organization through mass media, seminars/ workshop and community health related programs.*

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**Keywords**: Practice, Malaria Prevention Strategies

## Introduction

Malaria is a major cause of child mortality in Nigeria with approximately 100 million episodes in children under-five years of age every year (Federal Ministry of Health (FMOH), 2008). Mortality rate among children under-five years is 143 per 1,000 live births in the country (World Health Organisation, 2012) and deaths among this category of children often occur within two days of developing symptoms of malaria (Diallo *et al.*,, 2001; Federal Ministry of Health, 2008). Malaria increases susceptibility to other infections and retard growth and development in children. It is associated with considerable economic burden including direct loss to government productive. Malaria killed Nigerian children every 30 seconds, hence, pregnant women and their unborn children are also vulnerable to malaria which serves as major cause of maternal anemia and prenatal death (Davidson, 2000).

Practice is an action or behaviour that individual engages in and is normally induced by attitude either consciously or unconsciously. It can also be referred to as behaviours, specifically referring to a behaviour that a person engages in (Williams, 2005). The terms, practice and behaviours, are used synonymously in this study. Behaviour is mostly learned and this learned action is a reaction to social or physical environmental stimulus and is goal-oriented. It is an overt manifestation of inner feelings and thoughts which form attitude and is therefore an indirect mechanism of expressing attitude (Williams, 2005). The type of behaviour an individual will engage in can be predicted from the type of attitude formed for instance, effective and timely case management contributes to reducing mortality to less than 1%. However, for this to happen, enabling before such as time, self-esteem and availability

and accessibility of needed technical power needs to be present (Williams, 2005). These make it possible for an individual to convert an attitude into behaviour.

Practice of prevention of malaria has been globally accepted as a significant aspect of malaria control but majority of mothers of under-five often do not learn the tenets of prevention (Faladeet *al* 2006, Obristet *al* 2010). Faladeet *al (*2006) found out in their study that many of the mothers do not even believe malaria can be prevented because of series of myths and misconceptions they associate with fever in children, that practice of preventive measures like screening of windows and doors with nets, spraying the house with insecticides aerosol, application of insecticide repellant cream, wearing of long sleeved clothes and destruction of mosquito breeding sites are not common.

Despite the urgent need for the eradication of malaria, practice of its preventive measures remains a major challenge in Nigeria especially with respect to the three prong preventives measures recommended by RBM for under five children. These measures as earlier stated include the use of ITN, uptake of IPT and Prompt treatment and early diagnosis. World Health Organization (2005) revealed that although many health facilities in many endemic countries including Nigeria have begun the implementation of IPT and prompt case management, only 5% under five children receive good preventive regimen with the situation being more severe among under five children residing within local settings. Research report (Sheeran, and Abraham, 1996) on some countries in African revealed that under five children who make use of preventive regimens in line with the prescribed standards of WHO are only about twenty percent. Tyagi, Roy, and Malhotra (2005) reported that the failure to establish practice of community members regarding malaria was responsible for the inability of intervention programmes to achieve sustainable control. It has also been observed that community participation which is paramount in the control of malaria depends, among others, basically on the people's preventive practices

In most parts of Nigeria, malaria is a preventable and curable disease that is highly endemic, where the vast majority of cases occur in children under the age of five, due to this, mother of under-five children need to be more empower concerning MKAP. Malaria prevention strategies have been implemented in the recent past and intensified as an effort to attain the World Health Assembly, Roll Back Malaria, and Millennium Development universal targets with the aim of reducing and interrupting disease transmission in Nigeria. Ogun state is one of malaria endemic area in Nigeria, in which malaria prevention strategies such as the use of Insecticide Treated bed Nets (ITNs), Indoor Residual Spraying of insecticide (IRS), use of repellent, use of door net, use of window net, electric mosquito zapper and health education on knowledge, attitudes and practices for the high risk population especially the under-five children have been implemented by the government and non-governmental organization. Despite of all these efforts, the overall prevalence of malaria infection remains high among the under-five children. This reveal that mothers of under-five children still lack the practice of malaria prevention strategies in Ogun State. The questions are what are the practice of mothers of under five children towards malaria prevention strategies? Did they practices all the strategies used in preventing malaria in Ogun State? Thus it is very essential that operational research need to be conducted to fill this gaps (Akorede, Nofiu, & Kperogi, 2017). Therefore, this study was carried out to assess the

practices of malaria prevention strategies among mothers of under-five in Ogun State, Nigeria.

**Purpose of the Study**

1. The purpose of this study is to assess practice of malaria prevention strategies among mothers of under-five children in Ogun State, Nigeria.

**Research Question**

1. Do mothers of under-five children practice malaria prevention strategies in Ogun State?

**Null Hypothesis**

1. Mothers of under-five children in Ogun state do not significantly practice of malaria prevention strategies.

**Methodology**

The research design used for this study was Ex-post facto research design. The population of this study comprises of mothers of under-five in Ogun State, Nigeria. With the use of multi-stage sampling that involved a stratified random sampling technique, simple random sampling technique and purposive sampling techniques, a sample size of two hundred and sixteen (216) mothers of under-five was selected out of population of six hundred and forty one thousand, four hundred and forty five (641,445) mothers of under five in Ogun State. The first stage involved the use of stratified random sampling technique where the general hospitals in Ogun State was stratified into three (3) senatorial districts which are Ogun West, Ogun Central and Ogun East. The second stage involved the use of simple random sampling technique to select one general hospital from each senatorial district by writing all the general hospital in each senatorial district on a roll piece of paper, place in a container, shuffled it, and the selection was made. The third stage involved the use of purposive sample techniques to select the respondents (mothers of under-five) attending each of the general hospitals at the pediatric units.

The instrument used for data collection was a structured questionnaire. Two hundred and sixteen (216) validated copies of the instrument were used for data collection. Collected data was analyzed using simple percentage, frequency count, descriptive statistics, one sample t-test analysis and Pearson product Moment Correlation Co-efficient at 0.05 alpha level. The first stage involved the use of stratified random sampling technique where the general hospitals in Ogun State were stratified into the three (3) senatorial districts which are Ogun West, Ogun Central and Ogun East. The second stage involved the use of simple random sampling technique to select one general hospital from each senatorial district by writing the names of all the general hospital in each senatorial district on a piece of paper, roll and placed in a container, shuffled, and the selection was made. The third stage involved the use of purposive sample techniques to select the respondents (mothers of under-five) attending each general hospital at the padiatric unit. The instrument that was used in conducting this research is a primary source of data collection which is the structured questionnaire. In order to establish the validity of the instrument, the questionnaire was vetted by three (3) experts in the Department of Physical and Health Education, Faculty of

Education, Ahmadu Bello University, Zaria for comments, observations, correction and suggestions. After incorporating all the suggestions made by the experts, final questionnaire

were sorted and coded on excel sheet. With the use of Statistical Package for Social Science (SPSS) version 17, hypotheses one and two were analyzed with one sample t-test while hypothesis three was analyzed using Pearson Product Moment Correlation Coefficient.

**Results**

**Research Question 1**: What are the practices adopted by mothers of under five children towards malaria prevention strategies in Ogun State?

**Table 1**: **Mean scores of the Practice adopted by mothers of under five Children towards Malaria Prevention Strategies**

| Items | Mean | Std. Dev. |
|---|---|---|
| I wear protective cloths (long pants and long sleeve shirt) prevent mosquito bites | 2.21 | .90 |
| I use window nets to prevent mosquitoes | 2.53 | .96 |
| I cut bushes around the house to prevent mosquitoes breeding | | |
| I dispose empty containers harboring water to avoid breading of mosquitoes | 2.00 | .80 |
| I use door net to prevent the entrance of mosquitoes to my room | 3.01 | 1.18 |
| I use insecticide-treated mosquito net to prevent mosquito bites | 3.12 | 1.32 |
| I use Indoor residual spraying of insecticide to prevent mosquitoes | 2.23 | 0.53 |
| I use insect repellent to prevent mosquitoes from biting my child | 1.31 | .41 |
| I use electric mosquito zapper to kill mosquitoes from biting my child | 2.75 | 1.01 |
| I use mosquito coil to prevent mosquitoes from entering my room | 1.95 | .61 |
| **Aggregate Mean** | **2.40** | |

Table 1 above shows the mean score of the responses on the practices adopted by mothers of under five children towards malaria prevention strategies. The aggregate mean score of the items is 2.40 which was found to be greater than the fixed mean score of 2.5. This implies that the practices adopted by mothers of under five children towards malaria prevention strategies were not good and they do have knowledge of prevention of malaria but to put the knowledge to use was not done by the respondents.

**Null Hypothesis 1**: Mothers of under-five do not significantly practice malaria prevention strategies in Ogun State.

**Table 2:** One sample t-test analysis on practice of malaria prevention strategies among mothers of under five children in Ogun State

| Variable | Mean | Std | Df | t-value | P value |
|---|---|---|---|---|---|
| Aggregate mean | 2.402 | 0.8011 | 215 | 1.564 | 0.021 |
| Constant Mean | 2.50 | 0.000 | | | |

Observation of table 2 shows that the observed t-value of 1.564 at 215 degree of freedom (df) and a significance of .021 ($p< 0.05$). With this observation, there is enough evidence to accept the null hypothesis which states that mothers of under-five children in Ogun state do not significantly practice of malaria prevention strategies.

**Discussion of Findings**

It was discovered that mothers of under-five in Ogun State do not significantly practice malaria prevention strategies. The practices adopted by mothers o under-five towards malaria prevention strategies were not adequate and they do have knowledge of prevention of malaria but to put the knowledge to use was not done by the respondents which is in accordance to Falade, Ogundiran & Bolaji (2006), in their study stated that in Ondo State, many of the mothers do not even believe malaria can be prevented because of series of myths and misconceptions they associate with fever in children, that practice of preventive measure like screening of windows and doors with nets, spraying the house with insecticides aerosol, application of insecticide repellant cream, wearing of long sleeved clothes and destruction of mosquito breeding sites are not common.

**Conclusion**

Based on the findings, the following conclusion were drawn;

1. Mothers of under-five in Ogun State do not practice all the malaria prevention strategies.

**Recommendations**

On the basis of the conclusion drawn, the following recommendations were made;

1. There is need for a well packaged malaria health education intervention which could address and promote a constant practice of malaria preventive strategies among mothers of under-five children by government and non-governmental organization through mass media, seminars/ workshop and community health related programs.

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