

# Knowledge, Attitude and Practice towards Malaria Prevention among Pregnant Women in Warta-Nabada District Mogadishu-Somalia

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**Abstract:** The research titled was to identify knowledge, attitude and practice towards malaria prevention among pregnant women in Warta-nabada District Mogadishu-Somalia **Background:** in 2007, over 125 million pregnancies occurred in areas of malaria transmission and malaria accounts for an estimated 10,000 maternal and 200,000 neonatal deaths per year (Dellicour S T. A., 2010). Furthermore, malaria infected erythrocytes can easily accumulate in the placenta. Antibodies directed against the surfaces of infected erythrocytes in the placenta are important in protection, and are usually absent in first pregnancy (Rogerson SJ, 2007). Pregnancy related immunosuppressant also increases the chance of severe malaria and related mortality compared to other adults (McGready R, 2012). **Specific objectives of the study:** (1) To find out knowledge towards malaria prevention among pregnant women in Warta-nabada District Mogadishu-Somalia (2) To assess attitude towards malaria prevention among pregnant women and (3) To describe practice towards malaria prevention among pregnant women. **Methodology:** The study design used was cross sectional study, the sampling technique was the probability sampling especially simple random sampling. The sample size was 80. The main tool to collect the data was questionnaire. The quantitative data analyzed by using SPSS V.23. **Results:** The Majority of the respondents 55(68.8%) replied Malaria can be prevented as soon as it occurs, while the majority of the respondents 45(56.3%) were from health workers, whereas the majority of the respondents of this study 43(53.8%) reported that there any specific measures you make if you are infected. **Conclusion:** This study on level of knowledge, attitudes and malaria preventive practice among pregnant women attending antenatal clinic was average and reflected situation that puts the women at risk of continued malaria transmission. The observed inadequate preventive behavior strongly suggests scaled up health education and counseling to meet what is required to attain zero malaria transmission. **Recommendation:** 1) To make malaria awareness for the community. 2) To encourage the mothers to use mosquito nets which prevent the bites from mosquitoes 3) To educate the mothers the importance of taking anti-malarial treatment.

**Keywords:** Knowledge, Attitude, Malaria Prevention, Pregnancy

## 1. Background of the study

Infection during pregnancy with any Plasmodium species can be harmful to mother and fetus causing complications, such as maternal anaemia and reduced birth weight caused by preterm delivery and fetal growth restriction as well as miscarriage and still birth, most prominently in first or second pregnancies. (McGready R, 2012)

In view of these complications, the Roll Back malaria partnership recommended a three pronged approach for reducing the burden of malaria among pregnant women. (McGready R, 2012)

These interventions included use of insecticide treated bed nets (ITNs), intermittent preventive treatment with sulfadoxine/pyrimethamine (IPT-SP), and effective case management (WHO, 2012).

In 2007, over 125 million pregnancies occurred in areas of malaria transmission and malaria accounts for an estimated 10,000 maternal and 200,000 neonatal deaths per year (Dellicour S T. A, 2010).

Furthermore, malaria infected erythrocytes can easily accumulate in the placenta. Antibodies directed against the surfaces of infected erythrocytes in the placenta are

important in protection, and are usually absent in first pregnancy (Rogerson SJ, 2007).

Pregnancy related immunosuppression also increases the chance of severe malaria and related mortality compared to other adults (McGready R, 2012).

In Africa, Pregnant women are the main adult group at risk of malaria in sub-Saharan Africa, where approximately 25 million pregnancies are exposed to the infection and an estimated 10,000 maternal deaths attributable to malaria occur every year (Dellicour S T. A, 2010).

To control malaria in pregnancy the World Health Organisation (WHO) recommends Intermittent Preventive Treatment of malaria during pregnancy (IPTP) with sulfadoxine-pyrimethamine (SP), use of insecticide treated nets (ITNs), and effective treatment of malaria episodes. Despite the fact that, both IPTP with SP and ITNs are highly cost effective in improving maternal and infant health (UNICEF, 2005).

Several factors may explain the low uptake, and hence low effectiveness of preventive interventions for malaria in pregnancy, such as, limited access to Antenatal Care (ANC) services, health system factors which include drugs and insecticide treated bed nets (ITNs), stock outs, health professionals' attitudes and practices, low patient adherence,

Volume 12 Issue 10, October 2023

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or community attitudes towards one intervention among others (Ribera JM, 2007).

**In Africa**, Uganda, having the third highest fertility rate in the world bears a considerable proportion of the malaria burden in pregnancy. Intermittent preventive treatment of malaria during pregnancy (IPT), with sulphadoxine pyrimethamine (SP) is a key component of the WHO 's strategy to mitigate the adverse impact of malaria on pregnancies in Africa (WHO, 2004). However, Anti-malaria drugs such as primaquine, halofantine, mefloquine are contraindicated in pregnancies and thus not recommended (Mokuolu OA, 2007).

**In Somalia**, malaria prevention and control activity in pregnancy are in their infancy. Antenatal care, including intermittent preventive treatment (IPT) and iron supplementation, is provided at Mother and Child Health (MCH) health centers but only few women attend health facilities during pregnancy. As a consequence, 85% of women who were pregnant in the previous three years did not receive any drugs during pregnancy. More specifically, only 4% received SP during the last pregnancy (Lynch, 2005).

### 1.2 Statement of the problem

Pregnancy is a special physiological state where medication intake presents a challenge and a concern due to altered drug pharmacokinetics and drug crossing the placenta possibly causing harm to the fetus (Banhidy et al., 2005). Malaria treatment in pregnancy cannot be totally avoided since some pregnant women may be infected with malaria infection that requires giving anti-malaria during pregnant. Food and Drug Administration (FDA) classifies various Anti malaria drugs used in pregnancy into five categories, which are A, B, C, D and X. Category A is considered the safest category and category X is absolutely contraindicated in pregnancy (FDA, 2005). This provides therapeutic guidance for the clinician to give some anti-malaria drugs in pregnant women while others are contraindicated, so pregnant women especially illiterate women can 't differentiate this medication so they totally refuse taking the medicine due to fear of the effect of the drugs. To the best of our knowledge, no attempts were made to study knowledge, attitude and practice towards malaria prevention among pregnant women in Warta-nabada District. Such study is helpful since patients are believed to make deliberate decisions regarding their drug taking, based on their beliefs about the illness and its treatment.

### 1.3 Specific objectives of the study

- 1) To find out knowledge towards malaria prevention among pregnant women in Warta nabada District Mogadishu-Somalia
- 2) To assess attitude towards malaria prevention among pregnant women in Warta-nabada District Mogadishu-Somalia
- 3) To describe practice towards malaria prevention among pregnant women in Warta-nabada District Mogadishu-Somalia

## 2. Methodology

### 2.1 Research Design

The research design was used descriptive cross-sectional study that was employed because of it is easy to use as the information collect from respondents was not require to be reinvestigated over a period of time.

### 2.2 Study Area &Target Population

The target population of the study was all pregnant women in Warta Nabada District

### 2.3 Sample Size And Instrument For Data Collection

The sample size of the study was drawn from respondents of study population who comprises **80** respondents who are pregnant women from the households in Warta Nabada District

The data of this study was collected using quantitative data collection method.

### 2.4 Data Analysis

Data were analyzed using SPSS 23.0(statistically package for the social science were used.) the researchers used descriptive statistics to describe the variables in this study.

### 2.5 Ethical Consideration

The study concerns the knowledge, attitude and practice towards malaria prevention among pregnant women in Warta-Nabada District Mogadishu-Somalia.

The researchers received permission letter from Warta-Nabada district for them to be allowed that they can carry out their research and wisely The Participants are completely voluntary Informed consent will provide to the subjects with information concerning the purpose of the study, any information collected from the subjects was kept entirely confidential.

## 3. Results

The results of the study were presented using frequency tables and figures.

### 3.1 Have you ever attend the training talks about malarial issue?

Have you ever attend the training talks about malarial issue?	Frequency	Percent %
Yes	51	63.8%
No	29	36.3%
Total	80	100.0%

**Table 3.1**The most respondents of this research 51(63.8%) were Attended training about malaria while 29(36.3%)not attended training about malaria.

### 3.2 Do you believe taking Ant malarial medicines during pregnancy harms the fetus?

Do you believe taking Ant malarial medicines during pregnancy harms the fetus?	Frequency	Percent %
Yes	44	55.0%
No	36	45.0%
Total	80	100.0%

**Table 3.2** The majority of the respondents of this study 44(55.0%) were yes, believe taking Ant malarial medicines during pregnancy harms the fetus 36(45.0%) were no believe taking Ant malarial medicines during pregnancy harms the fetus.

**3.3 Do you believe Ant malarial medicines can prevent malarial infection during pregnancy?**

Do you believe Ant malarial medicines can prevent malarial infection during pregnancy?	Frequency	Percent %
Yes	49	61.3%
No	31	38.8%
Total	80	100.0%

**Table 3.3** Shows that the majority of the respondents of this study 49(61.3%) were believe Anti-malarial medicines can prevent malarial infection during pregnancy 31(38.8%) were not believe Anti-malarial medicines can prevent malarial infection during pregnancy.

**3.4 Do you believe the use of traditional remedies for the malarial treatment in pregnancy?**

Do you believe the use of traditional remedies for the malarial treatment in pregnancy?	Frequency	Percent %
Yes	47	58.8%
No	33	41.3%
Total	80	100.0%

**Table 3.4** The majority of the respondents of this study 47(58.8%) replied the use of traditional remedies for the malarial treatment and the rest 33(41.3%) replied they did not use of traditional remedies for the malarial treatment

**3.5 Do you use always mosquito nets?**

Do you use always mosquito nets?	Frequency	Percent %
Yes	54	67.5%
No	26	32.5%
Total	80	100.0%

**Table 3.5** The majority of the respondents of this study 54(67.5%) were used always mosquito net and the rest 26(32.5%) were not used mosquito nets.

**3.6 Do you think the traditional better than modern medicine for malaria prevention?**

Do you think the traditional better than modern medicine for malaria prevention?	Frequency	Percent %
Yes	51	63.8%
No	29	36.3%
Total	80	100.0%

**Table 3.6** The majority of the respondents of this study 54(67.5%) were through the traditional better than modern medicine for malaria prevention, and the rest 26(32.5%) were not through the traditional better than modern medicine for malaria prevention.

**4. Discussion**

The majority of the respondents of this study 80(100.0%) were female. The most respondents of this research 25(31.3%) were aged between 20 -25years, the majority of the respondents of this study 49(61.3%) were married and 22(27.5%). The most respondents of this research 24(30.0%) were university. The most respondents of this research 20(25.0. %) were first. The majority of the respondents of this study 38(47.5%) were 1-3 First trimester. The majority of the respondents of this study 1 36(45.0%) were house wife. The most respondents of this research 63(78.0%) were you know the malarial prevention while the most respondents of this research 51(63.8%) were Attended training about malaria. The most respondents of this research 55(68.8%) were through that malaria can prevent. The most respondents of this research 51(63.8%) were know that safe Anti-malaria medicines can take during pregnant. The majority of the respondents of this study 37(46.3%) were Quinine. The majority of the respondents of this study 45(56.3%) were from health workers. The majority of the respondents of this study 44(55.0%) were yes, believe taking Ant malarial medicines during pregnancy harms

**4.1 Conclusion of the study**

This observation is not surprising with the gradual improvement observed with reduction in malaria transmission following implementation of various malaria control initiative. This might be partly due to inappropriate means of communication and delivery of these messages by the health workers in addition to the low level of education of the respondents. The respondents' level of education was found to be significantly associated with knowledge of malaria prevention. Therefore, achieving malaria prevention, just like any other health message, depend on the level of education of respondents among other reasons.

This study on level of knowledge, attitudes and malaria preventive practice among pregnant women attending antenatal clinic was average and reflected situation that puts the women at risk of continued malaria transmission.

The observed inadequate preventive behavior strongly suggest scaled up health education and counseling to meet what is required to attain zero malaria transmission.

Comprehensive knowledge and attitude on malaria were comparable with most other studies. However, it should be scaled up to achieve the national target that by 2020 all households living in malaria endemic areas shall have the knowledge, attitude and practice towards malaria prevention and control.

### 4.3 Recommendations of the Study

We recommend the health workers:

- 1) To make malaria awareness for the community.
- 2) To encourage the mothers to use mosquito nets which prevent the bites from mosquitoes
- 3) To educate the mothers the importance of taking anti-malarial treatment

We recommend the communities:

- 1) To use preventative materials which prevents malaria before it happens to mothers
- 2) To consult with health professionals before traveling to any areas endemic of malaria
- 3) To promote clean environment and drain any water which are stagnated.

We recommend the local authorities:

- 1) To hold the seminars related to how to prevent the malarial disease.
- 2) To bring high quality treatment which can treat and prevent malaria?
- 3) To distribute preventive materials which can reduce malaria for mothers, their children and also other venerable groups
- 4) To make mass media campaign in relation to how malaria disease spread and also their signs and symptoms and also ways to prevent this disease.

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