Advances In Multidisciplinary & Scientific Research
A Multidisciplinary & Interdisciplinary Journal
Volume 8, No 1, March 2022 Series

Assessment Of The Knowledge, Attitude And Practice Of Pregnant Women In The Control and Prevention Of Malaria Infection (A Study Of State Hospital, Ifo, Ogun State).

Okanlawon-Peters P.O.
Department of Health Promotion and Education,
Ogun State College of Health Technology
Ilese-Ijebu P.M.B, 2018, Ijebu-Ode Nigeria
E-mail: okanlawonolukemi@gmail.com or oladapoismail1234@gmail.com, Contact
Phone: +2348163545418; +2348050212898

ABSTRACT

The main aim of this research is to assess the knowledge, attitude and practice of pregnant women in the control and prevention of malaria infection (A study of State Hospital ifo, Ogun State). Literature review was extracted from internals relevant text books and journals relevant to the study. Research was a purely descriptive survey, instrument used in data collection was structured designed Questionnaire, simple random sample technique was used to select the respondent for research purpose. Descriptive statistics of frequency count and percentage were used to analysis the Data. The result of the findings indicates ninety two respondents stated that malaria can kill if leave untreated, while the remaining eight stated that they do not know the consequence of leaving malaria untreated. Also it was observed that majority of the respondents either use mosquito nets or repellants for prevention of malaria. Hence it was concluded that in general, most people had fair knowledge about malaria prevention and control. The majority of respondents recognised malaria as a threat to their lives in the community. Despite this (fair knowledge and good attitudes), practices towards malaria prevention and control were poor. Therefore interventions aimed at social and behaviour change should primarily target the gaps in practices highlighted by the study. It is hereby recommended that there is need to reinforce good behaviour and demystify the myths and misconceptions held by respondents about malaria prevention and control measures. Examples of myths or misconceptions here included the fear of suffocating in mosquito bed nets or taking local herbs for treatment.

Keywords: Assessment, Knowledge, Attitude, Pregnant Women, Malaria Infection, Prevention, Nigeria

Aims Research Journal Reference Format:
Okanlawon-Peters P.O. (2022) Assessment Of The Knowledge, Attitude And Practice Of Pregnant Women In The Control And Prevention Of Malaria Infection (A Study Of State Hospital, Ifo, Ogun State).. Advances in Multidisciplinary and Scientific Research. Vol. 8. No. 1, Pp 43–50. DOI: dx.doi.org/10.22624/AIMS/V8N1P4. Available online at www.isteams.net/aimsjournal

1. INTRODUCTION

Malaria is a mosquito-borne infection of human and animals caused by genus Plasmodium. Over 2 million febrile episodes and one million deaths are caused by malaria in sub-Saharan Africa. Five species of Plasmodium can infect and transmit malaria to humans and majority of death are caused by P falciparum, P vivax, P ovale, P malaria and P knowlesi.

Plasmodium infection remains an important cause of mortality and morbidity in many parts of the world and it could have adverse effect on the population, both on health and socioeconomic attitudes(Wang et. al; 2005). Malaria infection is caused by five species of parasite of the genus Plasmodium that affect humans: P. falciparum, P. vivax, P. ovale, P. malariae, and P. knowlesi. In malaria-endemic countries, many P. falciparum infections are asymptomatic. The asymptomatic carriers do not seek treatment for their infection and, therefore, add up to a reservoir of parasites available for transmission by Anopheles mosquitoes (Brooker et. al; 2018). Malaria is a public health problem in Tanzania and the major cause of morbidity and mortality, accounting for about 30 % of all hospital admissions and 15 % of all hospital deaths.

Asymptomatic malaria infection in healthy Tanzanians was reported in 1986 when 8.1 % were found to have asymptomatic malaria parasitaemia; their prevalence was highest among young age groups and lowest in older age [Mazigo and Makus, 2018]. Prevalence of asymptomatic malaria infection among primary school children was reported as 14.3 % in northwestern Tanzania. It is reported that school-age children are the age group most commonly infected with malaria parasites. Their infections are usually asymptomatic, go unnoticed and thus never get treated, resulting in anaemia, reduced ability to concentrate and learn in school, and if sick may lead to school absenteeism (Khatib et. al; 2012). In Nigeria, only an estimated 35 % of pregnant women deliver at a healthcare facility (Adebami et al, 2000). Therefore, health facility-based estimates of the malaria burden in pregnant women often do not present a true picture of the problem.

1.1 Aims and objectives

The aim of the research is to assess the knowledge, attitude and practice of pregnant women in the control and prevention of malaria infection at the state hospital, ifo, ogun state).

The specific research objectives are:

- To determine the knowledge of pregnant women towards prevention and control of malaria infection.
- To examine the attitude of pregnant women towards prevention and control of malaria infection.
- To analyze the practice of pregnant women towards prevention and control of malaria infection.

2. METHODOLOGY

This study is a descriptive research design. While the population of the study population comprises of a total of One Hundred (100) Respondents who were adolescents in Ilese comprehensive high school Ijebu North East Local Government Area of Ogun State. Which was used to constitute the sample size using simple random sampling techniques. Also, one hundred questionnaire was distributed to respondents and retrieved immediately for analysis.

3. RESULT AND DISCUSSION

3.1 Data analysis and tabulation of result

The questionnaire and responses of data obtained from the respondents are displayed as follows:

Table 1: Sex distribution of the respondents

Sex		No of respondents`	Percentage (%)
	Male	27	27
	Female	73	73
	Total	100	100
Age		No of respondents`	Percentage (%)
	18 – 25	23	23
	26 – 35	57	57
	36 – 45	14	14
	46 above	6	6
	Total	100	100
Religion		No of respondents`	Percentage (%)
	Christianity	52	52
	Islamic	48	48
	Traditional	0	0
	Total	100	100

The above shows the sex of the respondents, 27% of the respondents were male while 73% of the respondents were female. 23% of the respondents were 18 – 25yrs of age, 57% of the respondents were 26 – 35yrs of age, 14% of the respondents were 36 – 45yrs of age while 6% of the respondents were 40yrs and above. It was also observed that 52% of the respondents were Christian, 48% of the respondents were muslim while none of the respondents practice traditional religion.

3.2 Analysis of Research Questions

Research Question One

What is the level of knowledge of pregnant women towards prevention and control of malaria infection?

Respondents answered a number of questions to gauge their knowledge about malaria. They ranged from basic information about malaria to sources of information, signs and symptoms as well as transmission and prevention of malaria.

Table 2 : showing the level of knowledge of pregnant women towards prevention and control of malaria infection

Have you ever heard about Malaria?	Yes	No	Never
	100	0	0

The result from the table above shows that all the respondents (100%) are aware of Malaria infection.

Table 3: Knowledge of pregnant women towards prevention and control of malaria infection

Which vector can transmit Malaria to humans?	Frequency	Percentage
Rat	2	2
Dog	0	0
Mosquito	89	89
Fly	9	9
Cockroach	0	0
I don't know	0	0

It was observed in the table above that few women are ignorant of the vector that causes malaria infection as two stated that rat is the vector causing malaria, also another nine (9%) respondents stated that fly is the causal vector of malaria, the remaining eighty nine respondents stated correctly that malaria is the vector causing malaria infection.

Table 4: Knowledge of pregnant women towards prevention and control of malaria infection

Malaria can be transmitted to humans by?	Frequency	Percentage
Drinking contaminated water	16	16
Eating contaminated food	0	0
Eating a lot of mangoes	0	0
Bite of mosquito infected with Malaria	84	84
Coming into close contact with a Malaria patient	0	0

Respondents knowledge on malaria was further tested by asking if malaria can be caused by five different means, sixteen respondents confused malaria for other water borne diseases stating that malaria is caused by drinking contaminated water while the remaining eighty four respondents stated correctly that malaria is caused by mosquito bite.

Table 5: knowledge of pregnant women towards prevention and control of malaria infection

Do you think Malaria can kill you if it is untreated?	Yes	No	I don't know
	92	0	8

The table above shows respondents answers on the question of malaria can kill if leave untreated, ninety two stated affirmative that malaria can kill if left untreated while the remaining eight stated that they do not know the consequence of leaving malaria untreated.

Table 6: knowledge of pregnant women towards prevention and control of malaria infection

What do you think are the most common signs and symptoms of Malaria infection?	Frequency	Percentage
High fever	98	16.9
loss of energy	56	9.6
Vomiting	43	7.4
Excessive sweating	62	10.7
Headache	85	14.6
Body pain	82	14.2
Loss of appetite	90	15.5
Dizziness	63	10.8
Total	579	100

Respondents were asked what are the most common symptoms of malaria infection respondents responses varies as the tables shows ninety eight respondents selected high fever as symptoms of malaria, fifty six respondents selected loss of energy as symptoms of malaria, forty three respondents selected vomiting as symptoms of malaria, sixty two respondents selected excessive sweating as symptoms of malaria, eighty five respondents selected headache as symptoms of malaria, eighty two respondents selected body pain as symptoms of malaria, ninety respondents selected loss of appetite as symptoms of malaria, sixty three respondents selected dizziness as symptoms of malaria.

Research Question Two

What are the attitudes of pregnant women towards prevention and control of malaria infection?

Table 7: Attitudes Of Pregnant Women Towards Prevention And Control Of Malaria Infection

		SA	A	D	SD
1	I think that Malaria is a serious and life-threatening disease	39	48	11	2
2	Malaria can be transmitted from one person to another like the common cold	15	3	75	7
3	I think the best way to prevent myself getting Malaria is to avoid getting mosquito bites.	94	6	0	0
4	I believe sleeping under a mosquito net during the night is one way to prevent myself getting I am sure that I can treat myself if I get Malaria	60	21	8	11
5	In my opinion, only children and pregnant women are at risk of Malaria	8	5	66	21
6	I think that one can recover spontaneously from Malaria without any treatment	35	11	33	21

From the table above it was observed that seventy seven respondents agreed to the fact that malaria is a serious and life-threatening disease that should be handled with serious medical care, also respondents attitudes shows that the best way of treating malaria is by avoiding mosquito bites and this is supported well as all respondents stated affirmative to this statement. Respondents were further quizzed if sleeping under mosquito net at night is the best was of preventing malaria and if they can treat themselves of malaria infection, eighty one respondents stated affirmative while the remaining nineteen students stated negative.

Table 8:

	Df	x^2	Tab	P-value
	15	409.3		<0.0001

Research Question Three

What are the practices of pregnant women towards prevention and control of malaria infection?

Table 9: Practices Of Pregnant Women Towards Prevention And Control Of Malaria Infection

		Always	Sometimes	Never
1	How often do you sleep in a mosquito net?	39	12	49
2	How often do other members of the household sleep in mosquito nets?	40	13	47
3	How often do you use mosquito repellents on your house?	78	5	17
4	How often do you clean/cut bushes around your house?	85	15	0
5	How often do you clean stagnant water near your house?	75	25	0
6	How often do you visit the health centre when you fall sick?	60	35	5

The above table shows the result of practice of pregnant women towards prevention of malaria infection, when asked how often they sleep in a mosquito net, it was observed that thirty nine (39) respondents stated that they always use mosquito net, twelve stated that they sometimes use mosquito net while the remaining fourty nine (49) does not use mosquito net to prevent mosquitoes. Respondents were further quizzed if other members of the household sleep in mosquito nets, forty stated always, thirteen stated sometimes, while the remaining forty seven stated never. When respondents were asked on how often they cut bushes around their houses, seventy five respondents stated always, and twenty five stated sometimes. Regarding knowledge about malaria, majority of respondents correctly associated mosquitos with malaria transmission (84%) and acknowledged that malaria can kill if it went untreated (92%). Studies have proved that improved community knowledge of malaria and its source of transmission promote preventive and personal protection practices amongst the affected community (Ahorlu et al., 2006; Tatem et al., 2010).

This is an opportunity any malaria prevention and control intervention can utilise. However, fewer (64%) were aware of the different ways to prevent and control malaria. A few even believed that malaria could be transmitted by drinking contaminated water (16%). All of this highlights the public health challenge that a campaign needs to address in order to address malaria in Nigeria. One would have suspected that women had better practices since they take care of the household and are also more likely to come across information on good practices at health centres when they take children for treatment (Appiah-Darkwah & Badu-Nyarko, 2011). Women are also at risk when pregnant and take care of babies who are also susceptical to malaria. Gender roles can play an important part in maintaining a home, as a result they will affect any malaria prevention and control measures undertaken at home.

Regarding practices, using mosquito repellant was the most prevalent method of malaria prevention and control (78%). Despite the high prevalence of bed nets, it was observed that many community members did not use nets properly.

4. CONCLUSION

The study aimed at assessing knowledge, attitudes and practices in of pregnant women in prevention and control of malaria fever. In general, most people had fair knowledge about malaria prevention and control. The majority of respondents recognised malaria as a threat to their lives in the community. Despite this (fair knowledge and good attitudes), practices towards malaria prevention and control were poor.

Therefore interventions aimed at social and behaviour change should primarily target the gaps in practices highlighted by the study.therefore, the following recommendations were prescribed:

- Public education is necessary to address the few but highly negative-impact knowledge gaps highlighted by the study.
- There is need to raise awareness and also educate all women of child-bearing age about preventing malaria during pregnancy.
- Some respondents said they do not know the difference between malaria and any other kind of fever, so a distinct awareness should be inducted into pregnant women antenatal programme in order to educate them on malaria infection prevention.
- There is need to reinforce good behaviour and demystify the myths and misconceptions held by respondents about malaria prevention and control measures. Examples of myths or misconceptions here included the fear of suffocating in mosquito bed nets or taking local herbs for treatment. Therefore, there's need for information, education and communication materials about seeking proper treatment for malaria. Many respondents do not seek treatment immediately or within 24 hours.
- Communication about malaria prevention and control should employ a combination of channels from the ubiquitous radio, posters at health center's and other community locations.

REFERENCES

1. Arnott A, Barry AE, Reeder JC (2012). "Understanding the population genetics of Plasmodium vivax is essential for malaria control and elimination". Malaria Journal. **11**: 14.
2. Arrow KJ, Panosian C, Gelband H, Institute of Medicine (U.S.). Committee on the Economics of Antimalarial Drugs (2004). Saving Lives, Buying Time: Economics of Malaria Drugs in an Age of Resistance. National Academies Press. p. 141. ISBN 978-0-309-09218-0.
3. Baird JK (2013). "Evidence and implications of mortality associated with acute Plasmodium vivax malaria". Clinical Microbiology Reviews. **26** (1): 36–57.
4. Brooker, Bartoloni A, Zammarchi L (2018). "Clinical aspects of uncomplicated and severe malaria". Mediterranean Journal of Hematology and Infectious Diseases. **4** (1): e2012026.
5. Beare NA, Lewallen S, Taylor TE, Molyneux ME (2011). "Redefining cerebral malaria by including malaria retinopathy". Future Microbiology. **6** (3): 349–55.
6. Beare NA, Taylor TE, Harding SP, Lewallen S, Molyneux ME (2006). "Malarial retinopathy: A newly established diagnostic sign in severe malaria". American Journal of Tropical Medicine and Hygiene. **75** (5): 790–7.
7. Bledsoe GH (2005). "Malaria primer for clinicians in the United States". Southern Medical Journal. **98** (12): 1197–204, quiz 1205, 1230.
8. Collins WE (2012). "Plasmodium knowlesi: A malaria parasite of monkeys and humans". Annual Review of Entomology. **57**: 107–21.
9. Collins WE, Barnwell JW (2009). "Plasmodium knowlesi: finally being recognized". Journal of Infectious Diseases. **199** (8): 1107–8. doi:10.1086/597415. PMID 19284287.
10. Cowman AF, Berry D, Baum J (2012). "The cellular and molecular basis for malaria parasite invasion of the human red blood cell". Journal of Cell Biology. **198** (6): 961–71.
11. Fairhurst RM, Wellems TE (2010). "Chapter 275. Plasmodium species (malaria)". In Mandell GL, Bennett JE, Dolin R. Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases. **2** (7th ed.). Philadelphia, Pennsylvania: Churchill Livingstone/Elsevier. pp. 3437–3462.
12. Khatib, Korenromp E, Williams B, de Vlas S, Gouws E, Gilks C, Ghys P, Nahlen B (2012). "Malaria attributable to the HIV-1 epidemic, sub-Saharan Africa". Emerging Infectious Diseases. **11** (9): 1410–9.
13. Mazigo and Markus, MB (2018). "Biological Concepts in Recurrent Plasmodium vivax Malaria". Parasitology.
14. Wang, Nayyar GM, Breman JG, Newton PN, Herrington J (2012). "Poor-quality antimalarial drugs in southeast Asia and sub-Saharan Africa". Lancet Infectious Diseases. **12** (6): 488–96.
15. White NJ (2011). "Determinants of relapse periodicity in Plasmodium vivax malaria". Malaria Journal. **10**: 297.