**SJ Obstetrics and Gynecology Africa**
**Vol. 1 No. 1 (2024): February 2024 Issue**
**https://doi.org/10.51168/f92r5z38**
**Original Article**

# KNOWLEDGE, ATTITUDE AND PRACTICES TOWARDS THE USE OF INSECTICIDE-TREATED MOSQUITO NETS AMONG PREGNANT WOMEN AT KASANGATI HEALTH CENTRE IV, WAKISO DISTRICT. A CROSS-SECTIONAL STUDY.

*Rachel Kanyesigye*, Amiri Were*
*Kampala School of Health Sciences, P.O Box 14263, Kampala, Uganda.*



## ABSTRACT

### The purpose of the study

To assess the knowledge, attitude and practices towards use ofinsecticide treated mosquito nets among pregnant women aged 18-45 years at Kasangati healthcentre IV, Wakiso district.

### Methodology

The study employed a descriptive cross-sectional design with simple random technique as the sampling technique. Data was collected using a semi-structured questionnaire written in English language from 50 respondents; later analyzed manually by useof tally sheets, entered in Microsoft excel computer program and presented in frequency tables,and figures.

### Results

All respondents had ever heard about insect treatedmosquito nets, (54%) obtained information about insecticide treated mosquito nets from healthfacilities, (80%) knew that ITNs prevents malaria among pregnant women. Almost all respondents (90%) perceived insecticide treated mosquito nets as very important to pregnant women, (92%) agreed that it was necessary for every pregnant woman to sleep under ITNs. (40%) of respondents had attended three ANCvisits, (98%) had a treated mosquito net, (70%) always use the mosquito nets, (66%) reportedthat they use ITNs to prevent themselves from malaria infection, (54%) reported that they maintain their mosquito nets at home by folding them every morning to prevent holes and (50%) always take IPTp.

### Conclusion

The knowledge and attitude were genuinely inspiring but for reasonable bridgingof the in-depth research gap practices slightly could be improved on since the researcher noticed un fully uptake of IPTp due to low ANC attendance.

### Recommendation

There's need for Kasangati heath centre IV administration to sustain continuous education programs during antenatal care services on the importance of ITNs moreso with malaria control and preventing the risk of anemia, low birth weight and death in orderto achieve equitable practices towards use of ITNs.

***Keywords;*** *Knowledge, Attitude, Practices, Insecticide Treated Mosquito Nets, Pregnant Women, Kasangati Health Centre IV*
***Submitted: 2024-01-01 Accepted: 2024-01-09***
*Corresponding author: Rachel Kanyesigye**
*Email: rachelelytee@gmail.com*
*Kampala School of Health Sciences, P.O Box 14263, Kampala, Uganda.*

## INTRODUCTION

### Background of the study

In 2020, there were 24.7 million pregnancies worldwide, of which 121.9 pregnancies were at risk of malaria, 52.9 million (43.4%) occurred in countries in the WHO regional offices of south- East Asia, 5.1 million (4. %) In the Western Pacific Region, 46.1 million (37.8%) In the Africa Region, 11.1 million (9.1%) in the Eastern Mediterranean region and 6.7 million (5.5%) in the Americas and global use of ITNs rate among pregnant women was at (49%) (Valentinaet al., 2021).

It was estimated that 552 mil-lion ITNs were provided by the NMP between 2015 and 2017; the bulk (83%) were given out in sub-Saharan Africa (SSA). About 80% of ownership and usewere widely regarded as the minimal condition for considering universal coverage. This was based on the assumption that 2 people typically share a net, so if 1 net is made available for every 2 members of a household, then everyone can utilize an ITN 7-8 in the South West Region of Cameroon. However, continent wide West Africa had the highest exposure rate to malaria during pregnancy (40%) followed by central Africa (39%) and East and Southern Africa (22%)

Kenya is one of the 33 countries the WHO ranks as moderate to high malaria transmission countries, which means the majority of the population is at risk of life-threatening disease in view of the fact that in 2020 0nly 49 per cent of pregnant women took three or more doses of fansidar

Uganda has made progress in implementing critical malaria control intervention, which include the provision of insecticide-treated bed nets, IPTp for pregnant women, prompt diagnosis andcase management, indoor spraying in areas with high transmission intensity. The national

coverage of insecticide-treated bed nets is reported at 83% while IPTp has stagnated at 41% but in 2020, 2173 women were pregnant but out of the total number, 2118 where from areas with highly affected malaria (Uganda national malaria control division &UBOS, 2021). To assess the knowledge, attitude and practices towards use of insecticide treated mosquito nets among pregnant women at Kasangati Health Centre IV, Wakiso district.

## METHODOLOGY

### Study design

This study employed a cross sectional study design. This design was best suitable for this study because it was aimed at finding out the prevalence of a phenomenon, condition, problem, attitude or issue, by taking a cross-section of the population.

### Study area

Kasangati health centre IV is located in Kasangati town, central region, Wakiso district. With 21 km from Kampala; it was set up in 1959 initially to take the outpatient pressure off MulagoNational referral hospital in Kampala. Currently the facility is a district referral centre for Wakiso. The facility has got several departments such as out-patient, inpatient, pediatric, majorand minor surgery, laboratory, pharmacy, ART, maternity and others. The facility receives anaverage of 250 patients daily. The study was carried out from month of January to August 2023

### Study population

This study comprised of pregnant women seeking for ANC at Kasangati health Centre IV, Wakiso district. The reason as to why the studyonly targeted pregnant women it was because pregnant women are more vulnerable to malariaand anemia.

### Sample size determination

The sample size was determined using Burton's formula (1952);S=2(QR)T; where
S= required sample size

Q= number of days the researcher spends while collecting dataR= maximum number of respondents per day
T= maximum time the researcher spends on each respondent.2× (5×10) ×0.5hrs= 50
Thus, 50 respondents.

### Sampling technique

Sampling technique was a description of strategies which were used to select representative elements/accessible population. A simple random sampling technique to get the statistical analysis related to sample distributions, hypothesis testing and sample size was used. The technique was preferred because it is a quicker way and saves time since each participant had a chance to be included from the study.

### Sampling procedure

On each day of data collection, a study population was selected, size 10 per day, assigned Roman numeral numbers were distributed to participants and those who were under the inclusion criteria after selection respondents were given a consent form to sign.

### Data collection methods

The used questionnaire approach, Interview through face-to-face interactions with participants, and phone calls where necessary the researcher would like more clarification fromthe facility in charge.

### Data collection tool

Data was collected by use of semi structured questionnaires written in English language and later translated into local language (Luganda) containing both close ended and open-ended questions were used to collect primary data from pregnant mothers. Only those who were present during the time of data collection and willing to participate in the study were given the questionnaires.

### Data collection procedure

Before collecting any information, permission was sought from Kasangati health centre IV administration to conduct the study. Two research assistants were trained on the subject in question and data collection procedures; before conducting the process, the purpose of the study was extensively explained to the respondents. After selection of the respondents by simple random sampling, respondents were given a consent form to sign. Once completed,the forms were placed in a box and sealed. Additional boxes were provided for questionnaires for each interview period. The respondents were asked questions following the designed questionnaire to avoid being biased and each respondent was interviewed for a period of 25- 30 minutes. After data collection all the questionnaires were sealed in the box.

### Dependent variable

Dependent variable was ITNs.

### Independent variables

Independent variables were knowledge, attitude and practices towards use of insecticide treatedmosquito nets among pregnant women aged 18-45 years.

### Quality control

The questionnaire was pre-tested in Kajjansi health centre IV, Wakiso district and administeredto a group of 10 respondents with similar characteristics prior to the main study for purposes of checking if the results given by the respondents were consistent, and also to check for ambiguous research questions. Results from the pilot study were not included in the final study.This was aiming at evaluating the

### Validity and reliability of the tools.

The study followed a selection criterion where pregnant women seeking for ANC services eligible for the study after consenting were inclusively subjected to participate and thestudy excluded pregnant women who were not

ready to consent. Two research assistants were trained and closely supervised on how to correctly administer thedata collection instruments to enhance the validity of the data. The questionnaires were screened for completeness and legibility.



### Data analysis and presentation

Data was systematically analyzed manually by use of tally sheets and entered in the excel computer program to generate tables, graphs, and pie charts for easy interpretation of the study findings.

### Ethical considerations

Ethical clearance was obtained from Kampala School of Health Science department of research. Then the letter taken to the medical director of Kasangati health centre IV where thestudy was conducted from; when permission was granted; the researcher and her assistants introduced themselves before conducting the study; respondents received an explanation of thestudy before enrollment and only those who were willing to participate were considered. Respondents were free to withdraw from the study at any time and strict confidentiality was observed. Initials were used to identify the respondents instead of full names.

## STUDY FINDINGS

### Demographic data

**Table 1: Shows the distribution of respondents according to demographic data (N=50)**

| Response | Frequency(f) | Percentage (%) |
|---|---|---|
| Age | | |
| 18-24 years | 11 | 22 |
| 25-31years | 30 | 60 |
| 32-45 years | 09 | 18 |
| Total | 50 | 100 |
| Religion | | |
| Catholic | 20 | 40 |
| Protestant | 08 | 16 |
| Muslim | 07 | 14 |
| Others | 15 | 30 |
| Total | 50 | 100 |
| Tribe | | |
| Muganda | 28 | 56 |
| Mutoro | 03 | 6 |
| Munyankole | 04 | 8 |
| Muteso | 01 | 2 |
| Others | 14 | 28 |
| Total | 50 | 100 |
| Occupation | | |
| Self employed | 20 | 40 |
| Employed | 07 | 14 |
| Un employed | 23 | 46 |
| Total | 50 | 100 |
| Level of education | | |
| Never went school | 02 | 4 |
| Primary | 10 | 20 |
| Secondary | 29 | 58 |
| Tertiary | 09 | 18 |
| Total | 50 | 100 |
| Gestation age | | |
| 1-3 months | 06 | 12 |
| 4-6 months | 25 | 50 |
| 7-9 years | 19 | 28 |
| Total | 50 | 100 |

**From the overall findings illustrated in table 1**

The majority of the respondents (60%) were within the age bracket of25-31 years whereas the minority (18%) were within the age bracket of 39-45 years.

Correspondingly, the study results revealed that depicted that most of the respondents (40%)were Catholics by religion whereas the least (14%) were Muslims by religion.

The study results in regards to tribe showed that more than half of the respondents (56%) were Baganda by tribe whereas the least (02%) were Bateso. The study also showed that (46%) were employed whereas the least (14%) they were employed.

Findings that were obtained from study in regards to education level showed that, majority of the respondents (58%) had attained secondary level of education whereas the minority (4%) had never gone to school. The study revealed that half of the respondents (50%) were within the gestation age of 4-6 months whereas the least (12%) were within the gestation period of 1-3 months.

**KNOWLEDGE TOWARDS USE OF INSECTICIDE TREATED MOSQUITO NETS AMONG PREGNANT WOMEN AGED 18-45 YEARS**

In a narrative point of view, generally all respondents had ever heard about insect treatedmosquito nets.

**Table 2: Shows the distribution of respondents according to where they obtained information about insecticide treated mosquito nets (N=50)**

| Response | Frequency(f) | Percentage (%) |
|---|---|---|
| Media | 18 | 36 |
| Relative | 03 | 06 |
| Health facility | 27 | 54 |
| Others | 02 | 04 |
| Total | 50 | 100 |

From the table 2, most of the respondents (54%) obtained information about insecticide treated mosquito nets from health facilities whereas the least (4%) reported other sources suchas friends and schools.

**Table 3: Shows the distribution of respondents according to their knowledge about benefits of using ITNs among pregnant women (N=50)**

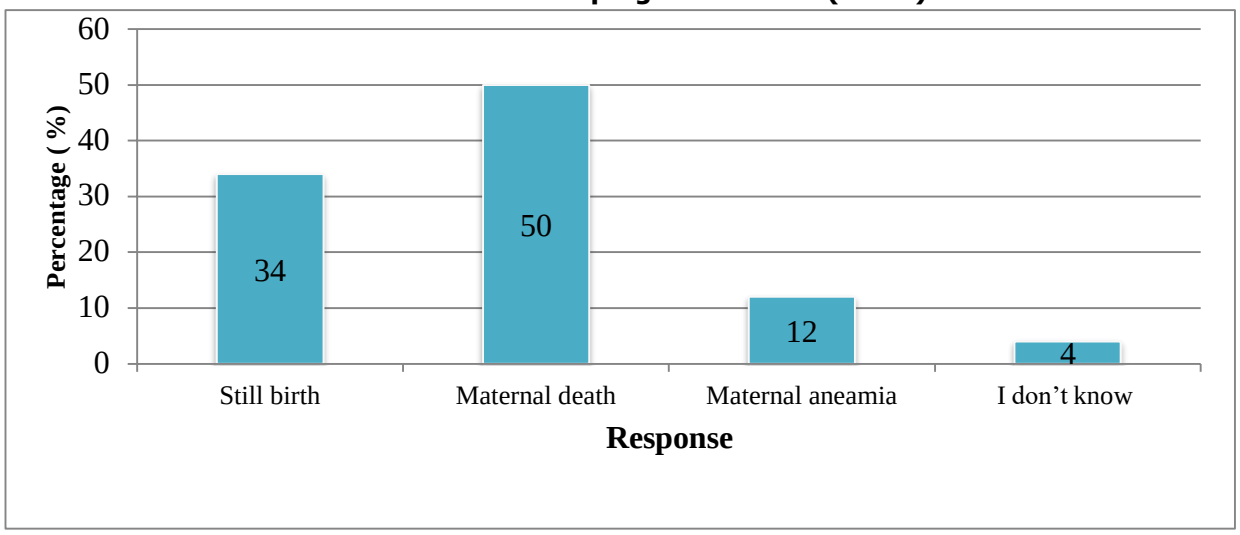
| Response | Frequency(f) | Percentage (%) |
|---|---|---|
| Prevents malaria | 40 | 80 |
| Prevents anemia | 09 | 18 |
| I don't know | 01 | 02 |
| Total | 50 | 100 |

From the table 3, the majority of the respondents (80%) knew that ITNs prevents malaria among pregnant women whereas the least (2%) they didn't know the benefits of ITNs among pregnant women.

SJ Obstetrics and Gynecology Africa
Vol. 1 No. 1 (2024): February 2024 Issue
https://doi.org/10.51168/f92r5z38
Original Article



**Figure 1: Shows the distribution of respondents according to their knowledge about the effects of malaria on pregnant women (N=50)**




From the figure 1, half of the respondents (50%) knew maternal death as the effect of malaria on pregnant women whereas the least (4%) they didn't know the effects of malaria onpregnant women.

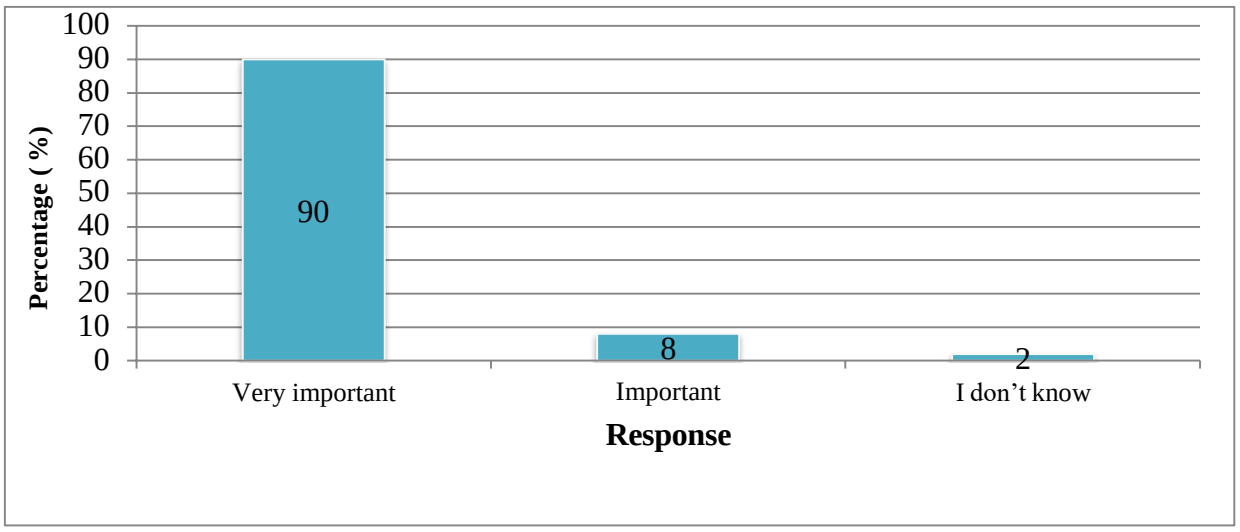
**Table 4: Shows the distribution of respondents according to their knowledge about types of ITNs (N=50)**

| Response | Frequency(f) | Percentage (%) |
|---|---|---|
| Conventionally treated | 10 | 20 |
| Long lasting | 22 | 44 |
| I don't know | 18 | 36 |
| Total | 50 | 100 |

From the table 4, almost half of the respondents (44%) knew long lasting mosquito netswhereas the least (20%) they didn't know the types of mosquito nets.

**ATTITUDES TOWARDS USE OF INSECTICIDE TREATED MOSQUITO NETS AMONG PREGNANT WOMEN AGED 18-45 YEARS**

**Figure 2: Shows the distribution of respondents according to how they perceived the importance of insecticide mosquito nets to pregnant women (N=50)**



From the figure 2, almost all respondents (90%) perceived insecticide treated mosquito nets as very important to pregnant women whereas the least (2%) never had any idea of how important are insecticide treated mosquito nets to pregnant women.

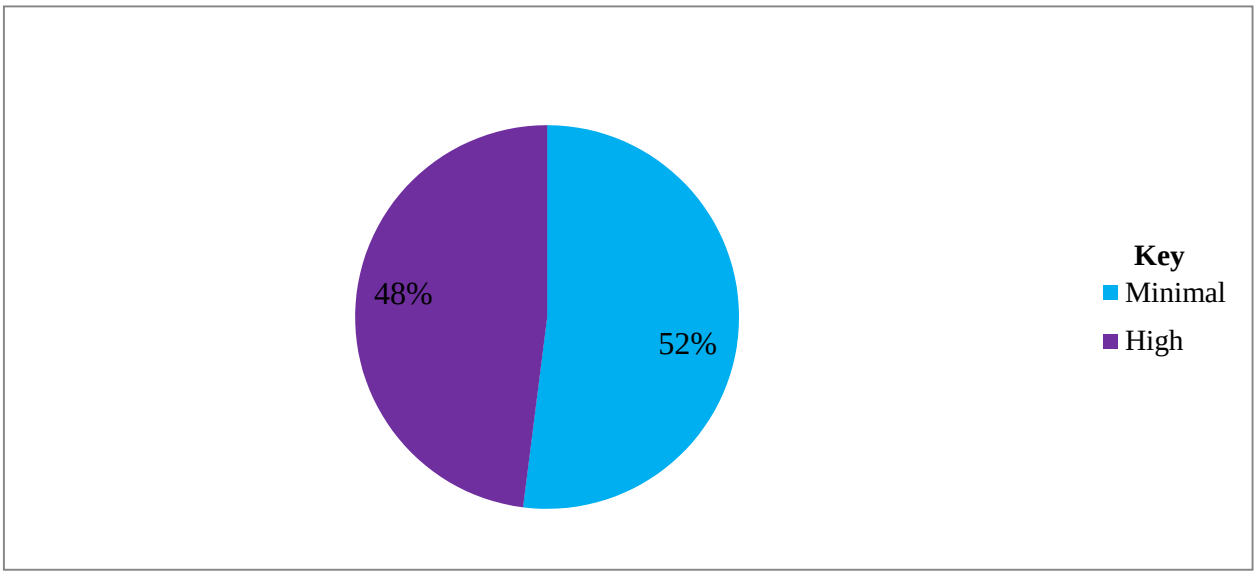
**Table 5: Shows the distribution of respondents according to whether it was necessary for every pregnant woman to sleep under ITNs (N=50)**



| Response | Frequency(f) | Percentage (%) |
|---|---|---|
| Agree | 46 | 92 |
| Disagree | 04 | 08 |
| Total | 50 | 100 |

From the table 5, nearly to all respondents (92%) agreed that it was necessary for everypregnant woman to sleep under ITNs whereas the least (8%) disagreed.

**Figure 3: Shows the distribution of respondents according to how they rate their personal risk of being infected from malaria (N=50)**




From the figure 3, most of the respondents (52%) perceived their personal rate of being atrisk to malaria infection was minimal whereas the least (48%) perceived their personal rate ofbeing t risk to malaria infection was high.

**Table 6: Shows the distribution of respondents according to whether they preferred to sleep under ITNs (N=50)**

| Response | Frequency(f) | Percentage (%) |
|---|---|---|
| Agree | 32 | 64 |
| Disagree | 18 | 36 |
| Total | 50 | 100 |

From the table 6, majority of respondents (64%) preferred to sleep under ITNs whereasthe minority (36%) never preferred to sleep under ITNs.

**Table 7: Shows the distribution of respondents according to reasons as to why they never preferred to sleep under ITNs (N=50)**

| Response | Frequency(f) | Percentage (%) |
|---|---|---|
| I get challenges of excessive heat | 25 | 50 |
| I get a challenge of itching | 16 | 32 |
| I don't like it | 09 | 18 |
| Total | 50 | 100 |

From the table 7, half of respondents (50%) reported that they get challenges of excessiveheat as the reason as to why they never preferred to sleep under ITNs whereas the least (17%)reported that they never liked to use ITNs.

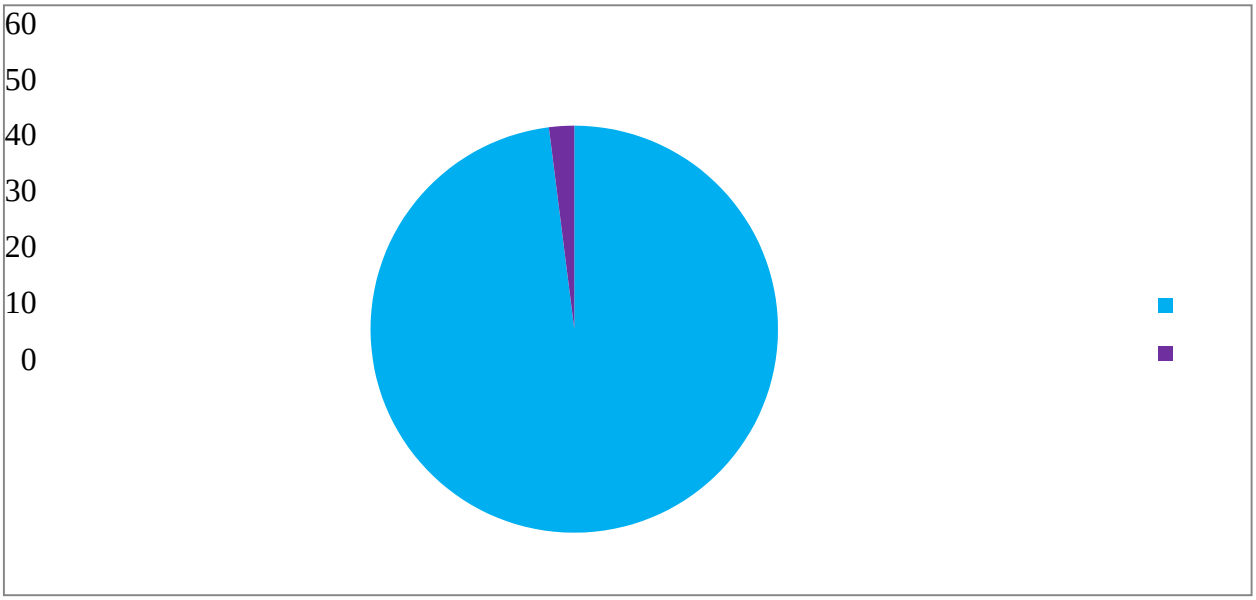
**PRACTICES TOWARDS USE OF INSECTICIDE TREATED MOSQUITO NETS AMONG PREGNANT WOMEN AGED 18-45 YEARS**

**Table 8: Shows the distribution of respondents according to how many ANC visits they had ever attended (N=50)**

| Response | Frequency(f) | Percentage (%) |
|---|---|---|
| One | 08 | 16 |
| Two | 11 | 22 |
| Three | 20 | 40 |
| Four | 11 | 22 |
| Total | 50 | 100 |

From the table 8, most of respondents (40%) had attended three ANC visits whereas theleast (14%) had attended four ANC visits.

**Figure 4: Shows the distribution of respondents according to whether they had a treated mosquito net (N=50)**

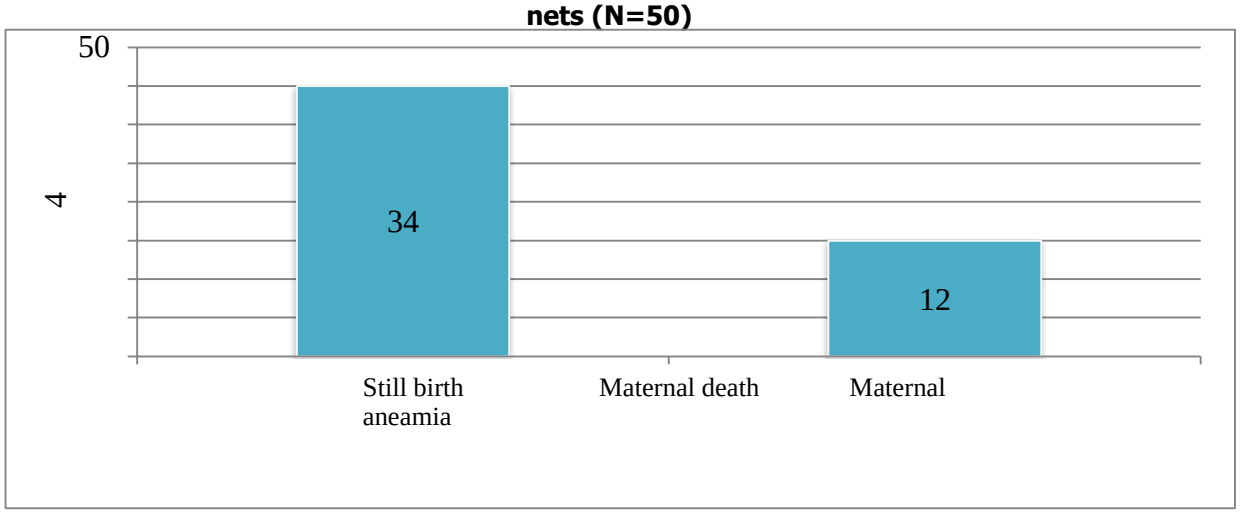



From the figure 4, almost all respondents (98%) had a treated mosquito net whereas theleast (2%) never had a treated mosquito net.

Vol. 1 No. 1 (2024): February 2024 Issue
https://doi.org/10.51168/f92r5z38
Original Article

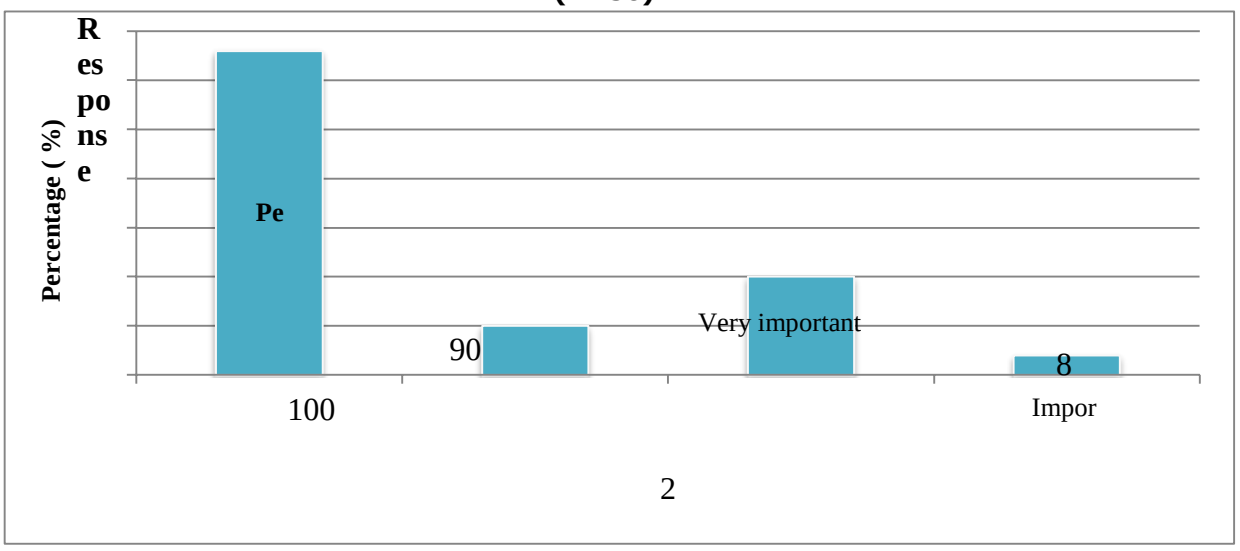


**Figure 5: Shows the distribution of respondents according to how often they use mosquito nets (N=50)**




From the figure 5, majority respondents (70%) agreed that they always use the mosquitonets whereas the least (30%) reported that sometimes they use the mosquito nets.

**Figure 6: Shows the distribution of respondents according to how they prevent themselves from malaria infection (N=50)**



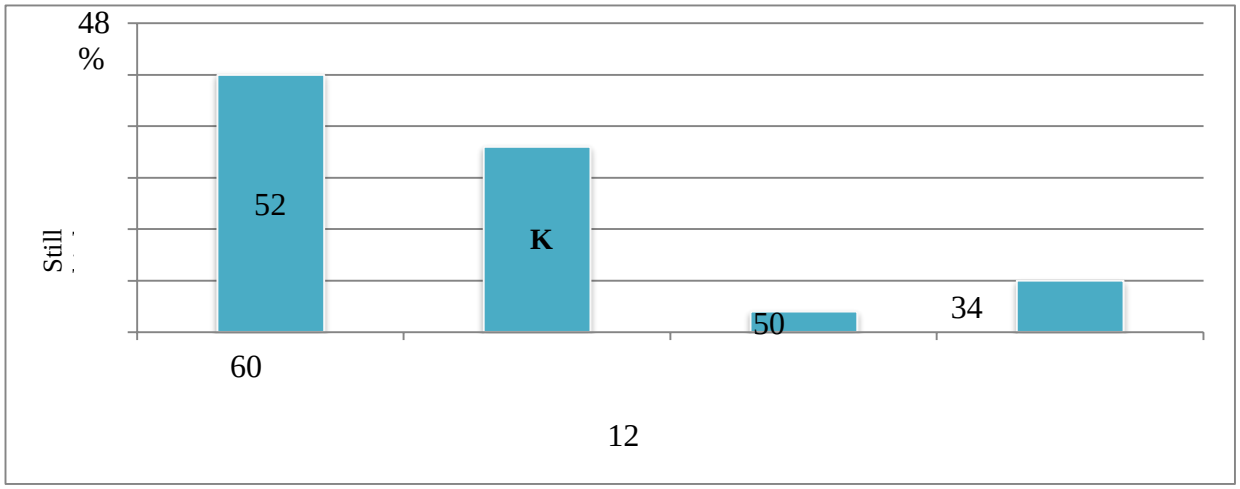

From figure 6, more than half of respondents (66%) reported that they use ITNs to prevent themselves from malaria infection whereas the least (4%) reported that other preventive measures such as spraying the houses and use of mosquito repellents.

**Table 9: Shows the distribution of respondents according to how they maintain the mosquito nets at home (N=50)**

| Response | Frequency(f) | Percentage (%) |
|---|---|---|
| Frequent washing | 11 | 22 |
| Reducing tension at sides of net | 10 | 20 |
| Folding them every morning toprevent hoes | 27 | 54 |
| Others | 02 | 04 |
| Total | 50 | 100 |

From table 9, most of respondents (54%) reported that they maintain their mosquito nets at home by folding them every morning to prevent holes whereas the least (2%) reported other measures such as restricting un necessary touching from children.

**Figure 7: Shows the distribution of respondents according to how often they take IPTp (N=50)**




From Figure 7, half of the respondents (66%) reported that they always take IPTp whereasthe least (4%) reported that they don't take ITNs.

## Discussions

Knowledge of the use of insecticide-treated mosquito nets among pregnant womenaged 18-45 years

From a narrative point of view, generally, all respondents had never heard about insect-treated mosquito nets. Such high response quantifies that study participants were very responsive aboutthe study setting. The study results were related to Mubarick et.al (2021), where (99.7%) of respondents had never heard of ITNs.

To add on that, most of the respondents (54%) obtained information about insecticide-treated mosquito nets from health facilities. This could be attributed to the fact that health workers at health facilities provide more fully packed direct information than other sources. The study results were in line with Muwoya (2020), where results revealed that participants got the information regarding Insecticide-treated nets (57%) attributed it to the hospital.

The study also showed that the majority of the respondents (80%) knew that ITNs prevent malaria among pregnant women. This is a clear indication that signifies that substantial numbers of participants were aware of the benefits of using ITNs. This was consistent with the study results of Duut& Abdul (2022), where (80.7%) of respondents knew malaria is prevented by using ITN.

Half of the respondents (50%) knew maternal death as the effect of malaria on pregnant women.This could be a result of the fact that an average number of participants had ever been sensitizedabout the effects of malaria on pregnant women from different sources of information. The current findings were in agreement with Tochi et al (2022), where results majority (60.3%) knew maternal death as the effect of malaria during pregnancy.

Stand still, almost half of the respondents (44%) knew long-lasting mosquito nets. This could be attributed to the fact that most of the respondents had never used long-lasting nets. The currentstudy findings were in line with Tayseir et al (2017), where (56.6%) of mothers knew about Long-lasting insecticidal nets.

Attitudes toward the use of insecticide-treated mosquito nets among pregnant womenaged 18-45 years

From the overall findings, almost all respondents (90%) perceived insecticide-treated mosquito nets as very important to pregnant women. This signifies that the participants had perceived ITNs to be more effective in preventing malaria infection, study findings were in agreement with results from Belt of Ghana done by Sumani &Danyi (2022), where results showed that 240 (82.3%) perceived insecticide-treated mosquito nets as very important to pregnant women.

Nearly all respondents (92%) agreed that every pregnant woman needed to sleep under ITNs. Such a high response reveals that pregnant women possessed a positive attitude towards the use of ITNs. The study results were inconsistent with Runsewe et al., (2018), where(65.8%) felt that they do not need ITNs.

Significantly, most of the respondents (52%) reported that their rate of being at risk of malaria infection was minimal. This could be a result of the fact that pregnant motherswere seriously implementing preventive measures for malaria infection as the study was yet todiscover. This was not in line with study results from Jinja by Muwoya (2020), where 75(60%) of the respondents believed they were not safe at all from being at risk of malaria infection.

Furthermore, the majority of respondents (64%) preferred to sleep under ITNs. This could be attributed to the fact that the majority of the mothers were afraid of the related complications thatmay result from not using ITNs. This was in agreement with Tochi et al (2022), where that 269 (68.4%) preferred to use ITNs,

However, among those who never preferred to use ITNs (50%) reported that they get challenges of excessive heat as the reason why they never preferred to sleep under ITNs.This was agreeable since mosquito increases heat depending on location and weather forecast period. The current findings were in line with Mubarick et al (2021), where the majority (51.9%) of the respondents complained of body itching when they used ITNs.

Practices towards use of insecticide-treated mosquito nets among pregnant womenaged 18-45 years

Interestingly, most of the respondents (40%) had attended three ANC visits. Such a low responseof the percentage rate reveals out ANC attendance among pregnant women was quite low since average numbers of the mothers were almost finishing up their second trimester. The study results differ from Mubarick et al (2021), where (60%) of the pregnant always utilized ANC services.

Almost all respondents (98%) had a treated mosquito net. This is attributed to the easy accessibility of mosquito nets all over the country. The study results were quite similar to Tayseir et al (2017), where (66.0%) of mothers reported that they owned an ITN.

Considerably, the majority of the respondents (91%) agreed that they always use mosquito nets. Therefore, this implies that a good number of participants were using mosquito nets. This is consistent with Chiamaka& Ngozi (2020), where 70% slept under the ITNs always.

The study further discovered that more than half of respondents (66%) reported that they use ITNs to prevent themselves from malaria infection. This depicts that an average number of participants were following malaria preventive measures. This was in disagreement with Duut& Abdul (2022), where most (96.8%) of the respondents were using spray or mosquito coil to prevent malaria.

Findings from the study showed that most of the respondents (54%) reported that they maintain their mosquito nets at home by folding them every morning to prevent holes and this implies that pregnant women were implementing ITN maintenance mechanisms to keep their nets safe. This was not in line with Sumani & Danyi (2022), where the majority of 310 (81.4%) of the women hanged their bed nets.

The study established that half of respondents (50%) reported that they always take IPTp. Therefore, this gives an implication that besides the average number of participants taking IPTpanother proportion of participants were more likely to be at risk of having malaria infection. The current findings were in contrast with the Enugu State Nigeria study that was done by Tochi et al (2022), where 220(60%) had completed the IPTp doses.

## Conclusion

### Based on the findings that were obtained from the study; the following conclusions were marked out:

The study discovered that knowledge of the use of ITNs was genuinely inspiring based on the fact that all respondents had ever heard about insect-treated mosquito nets, (54%) obtained.information about insecticide-treated mosquito nets from health facilities, (80%) knew that ITNs prevent malaria among pregnant women, (50%) knew maternal death is the effect of malaria on pregnant women, and (44%) knew about long-lasting mosquito nets.

In addition, the study established that the attitude towards the use of ITNs was positively agreeablesince almost all respondents (90%) perceived insecticide-treated mosquito nets as very important to pregnant women, (and 92%) agreed that every pregnant woman needed to sleep under ITNs, (52%) their rate of being at risk to malaria infection was minimaland (64%) preferred to sleep under ITNs,

The practices towards the use of ITNs were marked to be comparatively average since (40%) had attended three ANC visits, (98%) had a treated mosquito net, (70%) always used the mosquito nets, (66%) reported that they use ITNs to prevent themselves from malaria infection, (54%) reported that they maintain their mosquito nets at home by folding them every morning to prevent holes and (50%) always take IPTp.

In conclusion, the knowledge and attitude were genuinely inspiring but for reasonable bridging of the research gap practices slightly could be improved since the researcher noticed un full uptake of ITPp due to low ANC.

Recommendations

Since a substantial number of study participants had good knowledge creating awareness is not only enough. Therefore, the research strongly encourages health workers at Kasangati Health Centre IV to enhance practices towards the use of ITNs with environmental innervations towards malaria prevention in communities

since not all pregnant women were using the ITNs.
The Ministry of Health in partnership with the private sector should look into ways of implementing mass treatment campaigns and making treatment kits more widely available in the commercial sector at a cheaper cost.
Further research should be conducted on factors associated with low utilization of ITNs amongpregnant women to get more strategies that will close the gaps in practices.

## ACKNOWLEDGEMENT
I thank the almighty God for giving me the life and strength to pursue this course.
I would like to thank my supervisor Mr. Were Amiri who guided me through the process ofproducing this research report. Your support has been invaluable to me.
Especially, I would like to thank my family, Ms. Nabukenya Sharifa, and the entire staff of Kasangati Health Centre IV for supporting me in executing my future dreams.
I extend my sincere gratitude to my friends especially Mangwi Phillip, Mawerere Dickson, andNinsiima Privas Nyakato for their support throughout the entire course.

## LIST OF ABBREVIATIONS
ANC: Antenatal Care
HMIS: Health management information system
ICF: International Classification of Functioning
IPD: In Patient Department
IPTp: Intermittent Preventive Treatment in Pregnancy
ITNs: Insecticide-Treated Mosquito Nets
MIP: Malaria in pregnancy
NMP: National Malaria Programs
OPD: Out Patient Department
UAHEB: Uganda Allied Health Examinations Board
UBOS: Uganda Bureau of Statistics
WHO: World Health Organization

## Source of funding
No source of funding.

## Conflict of interest
No conflict of interest.

## REFERENCES
1) Chiamaka J. Okafor1, Ngozi P. Ogbonnaya. Eur J. (2020). Knowledge, accessibility, and utilization of insecticide-treated nets among pregnant women in a selected hospital inSouth-Eastern Nigeria Midwifery;4(December). *48*, 4.
2) Duut Timothy & Abdul R. Alhassan . (2022). Factors associated with ownership of insecticide-treated nets for malaria prevention among pregnant women in Ghana… *Public Health Toxicol*, 13.
3) Mubarick N. Asumah, Francis A. Akugri, Patricia Akanlu, Alice Taapena, Faustina Boateng. (2021). Utilization of insecticides treated mosquito bed nets among pregnant women in Kassena-Nankana East municipality in the upper east region of Ghana. *Public Health Toxicology ;, 1*, 2-9.
*4)* Muwoya Arthur. (2020). Knowledge attitude and practices towards the use of insecticidetreated mosquito nets among pregnant women in Lukolo Health Center Behavioral Sciences *Journal of Community Health and Behavioral Sciences.*
5) Runsewe-Abiodun, Iyabo T and Runsewe Olugbenga. (2018). Attitude and practice of pregnant women to use of insecticide-treated nets in South-West Nigeria. *AfricanJournal of Gender and Women Studies ISSN 2516-9831, 3*, 202-210.
6) Sumani Abdul-Manan, Danyi Elvis Tieriyag. (2022). Barriers and Motivators for Mosquito Bed Nets Use during Pregnancy in the Middle Belt of Ghana. *International Journal ofHealth Sciences and Research, 12*(2).
7) Tayseir T. M. Masaad, Yousif M. Elmosaad, Abd Elbasit Elawad Mohammed, Ahmed Elnadif Elmanssury, Mahmoud Jaber, Mustafa M. Mustafa, Husam Edrees. (2017). Knowledge, Attitude, and Practices Among Mothers Towards Insecticide-Treated Netsin Abuharira Village -Um Remta Locality- The White Nile State -2015. *Science Journal of Clinical Medicine., Vol. 6*,(NO.2), pp. 24-.
8) Tochi Emmanuel Iwuagwu, Patience Chikodili Ezema, Amaka Harry Ononuju, VivianmaryAmarachi Ifemegbulem, Binfat Nandang Adi, Osmond Chukwuemeka Ene, Veronica O. Charles-Unadike. (2022). Knowledge and attitude of pregnant
9) mothers towards malaria management in Nsukka Local Government Area. Enugu State Nigeria. *Nigerian Journal of Health Promotion., 15*.
10) Uganda National Malaria Control Division & UBOS, ICF. (2021). *Uganda. Malaria Indicator Survey 2018-2019. Kampala Uganda*, Rockville, Maryland, USA.
11) Valentina Reddy, Daniel J. Weiss, Jennifer Rozier, Feiko O. TerKuile, Stephanie Dellicour. (2021). Global estimates of the number of pregnancies at risk of malaria from 2007- 2020: a demographic study. *The Lancet: Global Health., 11*(1).
12) WHO. (2022). *Malaria prevalence.* Geneva, Switzerland.

**Publisher details:**



**SJC PUBLISHERS COMPANY LIMITED**


**Category: Non-Government & Non-profit Organisation**
**Contact: +256775434261(WhatsApp)**
**Email: admin@sjpublisher.org, info@sjpublisher.org or studentsjournal2020@gmail.com**
**Website: https://sjpublisher.org**
**Location: Wisdom Centre Annex, P.O. BOX. 113407 Wakiso, Uganda, East Africa.**

SJ Obstetrics and Gynecology Africa
Vol. 1 No. 1 (2024): February 2024 Issue
https://doi.org/10.51168/f92r5z38
Original Article