



## THE INFLUENCE OF PREGNANT WOMEN'S KNOWLEDGE ABOUT THE USE OF INSECTICIDAL MOSQUITO NETS ON THE INCIDENCE OF MALARIA BY READING POCKET BOOKS AT PUSKEMAS SENTANI

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ABSTRACT	Keywords
<p><b>Background:</b> Malaria is an infectious disease caused by Plasmodium, which is a one-celled living creature that belongs to the group of protozoa, malaria is transmitted through the bite of a female anopheles mosquito containing plasmodium in it, plasmodium carried through mosquito bites will live and multiply in human blood cells. Pregnant women belong to the group that is prone to malaria due to the decrease in various pathological conditions in pregnant women and the fetuses they contain. The implementation of malaria control towards elimination is carried out gradually from one island or several islands until all islands are covered in order to realize a healthy living community and free from malaria transmission until 2030. The use of insecticidal mosquito nets is one of the preventive efforts towards malaria elimination. Public knowledge, especially pregnant women, about the use and benefits of insecticidal mosquito nets is an obstacle. Objective: Knowing pe.</p> <p><b>Methods :</b> The design of this study is an experimental research with a type of quasy experiment with the approach of One Group Pre Test / Post Test Design. The population in this study was pregnant inu who visited the Sentani Health Center with sampling techniques using Non Probability Sampling selected by Perposive Sampling consisting of 30 respondents. The variable measured in this study is the knowledge of pregnant women. This study used the Wilcoxon signed rank test (<math>\alpha &lt; 0.05</math>). Result: The results showed that pregnant women's knowledge about the use of berymunu berisktside after being carried out was higher than before. with a value of <math>p=0.005</math>. Thus it can be concluded that the accepted hypothesis means that there is an influence of the knowledge of pregnant women on the use of insecticidal mosquito nets. Conclusion : there is an influence of pregnant women's knowledge on the development of the use of synsecticide mosquito nets.</p>	<p><i>Knowledge, Insecticidal Mosquito Nets</i></p>

## INTRODUCTION

Malaria is an infectious disease caused by Plasmodium, which is a one-celled living creature that belongs to the group of protozoa, malaria is transmitted through the bite of a

female anopheles mosquito containing plasmodium in it, plasmodium carried through mosquito bites will live and multiply in human blood cells. The disease affects all age groups of both men and women. People affected by

malaria will have symptoms: chills, sweating, headache, nausea and vomiting. Patients who show clinical symptoms should undergo laboratory tests to confirm their malarial positive status. (Budiyanto & Wuriastuti, 2017)

Pregnant women belong to the group that is prone to malaria due to the decrease in various pathological conditions in pregnant women and the fetuses they contain. In pregnant women, malaria can result in the onset of fever, anemia, hypoglycemia, acute pulmonary disease, kidney failure and can even cause death. In fetal premature labor, low birth weight and fetal mortality (Rahmah, 2017).

The implementation of malaria control towards elimination is carried out in stages from one island or several islands until all islands are covered in order to realize a healthy living community and free from malaria transmission until 2030. The use of insecticidal mosquito nets is one of the preventive efforts towards malaria elimination. The lack of use of insecticidal mosquito nets is one of the challenges in prevention efforts towards malaria elimination. Public knowledge, especially pregnant women, about the use and benefits of insecticidal mosquito nets is an obstacle (Ministry of Health, 2017).

An effort to increase the knowledge of pregnant women about the benefits of using insecticidal mosquito nets is to provide information, one of which is by reading a pocket book. A pocket book is a small book,

practical because it can be carried anywhere that contains information in the form of material or other information. (Baroroh et al., 2017).

Based on the above problems, the author is interested in conducting a study with the title "The Effect of Pregnant Women's Knowledge about the Use of Insecticidal Nets on Malaria Events by Reading Pocket Books at the Sentani Health Center

## **METHOD**

This research is an experimental research with a quasi-experimental design with a One Group Pre Test / Post Test Design approach, the instrument used is a questionnaire to measure the knowledge of pregnant women before reading a pocket book. After reading the pocket book, the same questionnaire was given to see the knowledge of pregnant women in the use of insecticidal mosquito nets. The research site is in Puskesmas Sentani, Jayapura regency. The study was conducted for 2 months. The population in this study was all pregnant women at the Sentani Health Center who came to visit the Puskesmas. The sample was a representative of a population of 30 pregnant women. The sampling technique in this study was to use accidental sampling. The instruments used are questionnaires and pocket books. Univariate analysis is to describe the characteristics of each variable contained in the research instrument, namely the characteristics of pregnant women which include age, education, occupation, grav.

## **Research Results**

## RESULTS AND DISCUSSION

**Table 4.1**Age characteristics of pregnant women at the Sentani Health Center Year 2023

Pregnant Women	Frequency	(%)
1. Age		
< 20 years	3	10,0
20-35 years	25	83,3
> 35 years	2	6,66
<b>Sum</b>	30	100
2. Education		
Elementary schools	2	6,7
Junior High School	2	6,7
High School	23	76,6
College	3	10,0
<b>Sum</b>	30	100
3. Work		
Work	29	96,6
Not working	1	3,3
<b>Sum</b>	30	100
4. Parity		
Primigravida	13	43,3
Multigravida	17	56,6
Grandemultigravida	0	0

## 1. Univariate Analysis

What is distributed is the knowledge of pregnant women about the use of insecticidal mosquito nets before and after reading pocket books.

**Table 4.2 Distribution of Respondents Based on Knowledge of the Use of Insecticidal Nets in 2023**

Knowledge	Before	%	After	%
Good	2	6,6		66,6
Enough	19			26,6
Less	9	20		6,6
		63,3	8	
		30	2	
Total	30	100	30	100

**Table 4.3 Differences in Respondents' Knowledge About the use of insecticidal mosquito nets Before and After reading pocket books in 2023**

Knowledge	Σ Mean	Standard deviation	P-value
Before	333	1,749	0,05
After			

Table 4.3 Wilcoxon test results showed an increase showing an average knowledge of the use of sexicidal mosquito nets before and after reading a pocketbook of 3.3 with a standard deviation of 1.749. The results of the paired t test statistical test at a meaningfulness value of 95% ( $\alpha = 0.05$ ) obtained a p-value of 0.005  $p > \alpha$  (0.05) thus there was an influence on increasing knowledge of the use of insecticidal mosquito nets on reading books in pregnant women with malaria.

## DISCUSSION

### Knowledge of pregnant women before reading a pocketbook on the use of insecticidal mosquito nets

Based on the results of research on pregnant women before reading books on the use of mosquito nets with a medical system, 10 pregnant women who lacked knowledge. Knowledge is a very important domain for the formation of a person's behavior, including behavior in malaria prevention and treatment efforts.

A pocket book is defined as a book with a small size, light weight, and can be stored in a pocket, so it is practical to carry everywhere, and at any time it can be read". Another definition states that "a pocketbook is a small pocketbook the size of a pocket so that it is effective to carry everywhere and can be read at any time when needed". (Asyhari & Silvia, 2016)

According to research conducted by (Subhi Isnaini & Bahrah, 2019) that lack of knowledge about the means of transmission, prevention, eradication and treatment of malaria can lead to less community attitudes and actions, especially in malaria prevention and eradication efforts. This is because before a person behaves he must first know what the behavior means and benefits for himself, so that lack of knowledge can lead to less behavior as well.

Pocket book health promotion is one of the efforts that can be made to increase knowledge. The success of health counseling in pregnant women depends on the learning component. Pocketbook media is proven to have an effective influence where attracting will provide confidence, thereby increasing the knowledge of pregnant women. (Simanjorang et al., 2020)

This research is in line with the research conducted (Baroroh et al., 2017) at the Adriana Tarigan Belawan Clinic that the lack of knowledge of pregnant women about malaria infection in kahamilan is very detrimental to the mother and the fetus they contain, because this infection can increase the number of morbidity and mortality of the mother and fetus. Mothers suffering from malaria can develop anemia, cerebral malaria, pulmonary edema, kidney failure, and can even cause death. In the fetus causes abortion, premature delivery, low baby weight, and fetal death. Infection in pregnant women by changes in the humoral immunization system, as well as allegedly also due to an increase in the hormone cortisol in women during pregnancy.

Previous research by at the Adriana Tarigan Belawan Clinic revealed that the lack of maternal knowledge was found especially in mothers who were poorly educated and lacked experience about malaria which had an impact on malaria prevention measures that mothers take to their children. In (Notoatmodjo (2014 & ), n.d.) factors that

affect the health status of public or individual health degrees include behavior, where mothers act as nurses for their families, such as caring for their toddler children.

### **Knowledge of pregnant women after reading a pocket book about the use of insecticidal mosquito nets**

Sur la base des résultats de recherches sur les femmes enceintes avant de lire des Knowledge is the result of human sensing or knowing a person's knowledge of objects through the senses he has (eyes, nose, ears and so on). By itself, at the time of sensing to the point of acquiring such knowledge livres sur l'utilisation des moustiquaires avec un système médical, 10 femmes enceintes qui manquaient de connaissances. La connaissance est un domaine très important pour la formation du comportement d'une personne, y compris le comportement dans les efforts de prévention et de traitement du paludisme.

Knowledge is the result of human sensing or knowing a person's knowledge of objects through the senses he has (eyes, nose, ears and so on). By itself, at the time of sensing to the point of knowledge is strongly influenced by the intensity of attention and perception of the object. Most of a person's knowledge is obtained through the sense of hearing (ears), and the sense of sight (eyes).

It is agreed according to (Ludyaningrum, 2016) that the existence of information can increase a person's knowledge even though the person is poorly educated. Therefore, after the respondent was able to receive information in the form of counseling about malaria, the respondent's knowledge about malaria increased.

This research is in line with research

conducted at the Adriana Tarigan Belawan Clinic that the lack of knowledge of pregnant women about malaria infection in kahamilan is very detrimental to the mother and the fetus they are carrying, because this infection can increase the morbidity and mortality of the mother and fetus. Mothers suffering from malaria can develop anemia, cerebral malaria, pulmonary edema, kidney failure, and can even cause death. In the fetus causes abortion, premature delivery, low baby weight, and fetal death. Infection in pregnant women by changes in the humoral immunization system, as well as allegedly also due to an increase in the hormone cortisol in women during pregnancy.

#### **The Effect of Pregnant Women's Knowledge about the Use of Insecticidal Mosquito Nets on Malaria Events by Reading Pocket Books at Puskemas Sentani**

The results showed that the results of the paired t test statistical test at a meaningfulness value of 95% ( $\alpha = 0.05$ ) obtained a p-value of 0.005 or  $p < \alpha$  (0.05). This shows that there are differences in pregnant women's knowledge about the use of sexicidal mosquito nets against malaria events by reading pocket books.

One of the efforts to increase knowledge is to hold health counseling to the community. Research by (Mustafa et al., 2018) found that counseling has a significant influence on increasing maternal behavioral knowledge about malaria. Increasing health knowledge will increase health awareness and will further result in changes in healthy living practices.

According to the researchers' assumptions, there are still respondents who are knowledgeable, this happens because knowledge is influenced by as many factors as: age, education, and occupation. Older respondents have better knowledge than

younger mothers, working responses have broader knowledge insights than non-working respondents, as well as respondents who are poorly educated, because respondents who are poorly educated will find it difficult to understand and absorb any information they receive so that they have less knowledge. Therefore, it is necessary to have a good interaction between respondents and health officials to provide information or counseling about malaria in pregnant women. (Niu Flora, 2018)

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