BEHAVIOR OF THE USE OF MOSQUITO NET AS A PREVENTION OF MALARIA IN ONDOREA VILLAGE, NANGA PANDA SUB-DISTRICT IN 2019

by Yustina Pacifica Maria Paschalia

Submission date: 14-Aug-2022 06:46PM (UTC+0700)
Submission ID: 1882290867
File name: Yustina_Anatolia_Irfan_fix_TRANSLATE.docx (75.28K)
Word count: 5165
Character count: 27781

BEHAVIOR OF THE USE OF MOSQUITO NET AS A PREVENTION OF MALARIA IN ONDOREA VILLAGE, NANGA PANDA SUB-DISTRICT IN 2019

Yustina Pacifica Maria Paschalia[1], Anatolia K. Doondori[1], Irfan[2], Norma Tiku Kambuno[3]

[1] Nursing Department Ende, Poltekkes Kemenkes Kupang

[2] Nursing Department Kupang, Poltekkes Kemenkes Kupang

[3] Department of Medical Laboratory Technology, Poltekkes Kemenkes Kupang, Nusa Tenggara Timur, Indonesia

yustinapaschalia@gmail.com telidoondori@gmail.com , irfan1971kupang@gmail.com norma.kambuno@gmail.com

ABSTRACT

Malaria is an infectious disease that is still a world public health problem, especially in developing countries with tropical climates, including Indonesia.The national prevalence of malaria based on the results of Riskesdas in 2010 was 0.6%, where East Nusa Tenggara was one of the provinces with API above the national average. The highest prevalence rates are found in eastern Indonesia, namely in West Papua (10.6%), Papua (10.1%) and East Nusa Tenggara (4.4%). Ondorea Village in Nangapanda Subdistrict, Ende Regency, is one of the villages in East Nusa Tenggara, which is a province with APIs above the national average. The purpose of this study was to determine family behavior in using mosquito nets as an effort to prevent malaria in Ondorea Village, Nangapanda District. This research is a survey research type with descriptive research design, the design used is"*cross sectional*".The population were all families residing in Ondorea Village, totaling 178 families, the sample in this study used a total sample. The variable in this study was a single variable, namely family behavior in the use of mosquito nets. The data used in this study are primary data collected by making home visits. The results showed that public knowledge about the use of mosquito nets as an effort to prevent malaria in Ondorea Village, Nangapanda District was in the sufficient category, namely 85.39%, those with good knowledge of 6.34% and those with moderate knowledge of 7.87%. The public attitude about the use of mosquito nets is in the good category, namely 99.4%, which has a sufficient attitude of 0.56%.It is recommended that respondents and their family members continue to use the mosquito net at nap time or during hot weather and wash the mosquito net regularly according to the rules.

Keywords: Behavior, Mosquito Nets, and Malaria

Keywords: Behavior, Mosquito Nets, and Malaria

Correspondence: Yustina Pacifica Maria Paschalia . Ende Nursing Study Program, Poltekkes Kemenkes Kupang, East Nusa Tenggara. Phone: Mobile: 0852-2800-4260. E-mail: ... @ ....

PERILAKU PENGGUNAAN KELAMBU SEBAGAI UPAYA PENCEGAHAN MALARIA DI DESA ONDOREA KECAMATAN NANGA PANDA TAHUN 2019

ABSTRAK

Malaria merupakan salah satu penyakit menular yang masih menjadi masalah kesehatan masyarakat dunia terutama dinegara-negara berkembang yang beriklim tropis termasuk Indonesia. Prevalensi nasional malaria berdasarkan hasil Riskesdas tahun 2010 adalah 0,6% dimana Nusa Tenggara Timur termasuk provinsi dengan API di atas angka rata-rata nasional. Tingkat prevalensi tertinggi ditemukan di wilayah timur Indonesia, yaitu di Papua Barat (10,6%), Papua (10,1%) dan Nusa Tenggara Timur (4,4%). Desa Ondorea di Kecamatan Nangapanda Kabupaten Ende merupakan salah satu desa yang berada di Propinsi Nusa Tenggara Timur yang merupakan provinsi dengan API di atas angka rata-rata nasional. Tujuan penelitian ini adalah untuk mengetahui perilaku keluarga dalam menggunakan kelambu sebagai upaya pencegahan malaria di Desa Ondorea Kecamatan Nangapanda. Penelitian ini termasuk jenis penelitian survey dengan rancang bangun penelitian deskriptif, desain yang digunakan adalah"*cross sectional*". Populasinya adalah semua keluarga yang berada di wilayah Desa Ondorea yang berjumlah 178 KK, sampel dalam penelitian ini menggunakan total sampel.Variabel dalam penelitian ini adalah variabel tunggal yaitu perilaku keluarga dalam penggunaan kelambu. Data yang digunakan dalam penelitian ini adalah data primer yang dikumpulkan dengan melakukan kunjungan rumah. Hasil penelitian menunjukkan bahwa pengetahuan masyarakat tentang penggunaan kelambu sebagai upaya pencegahan Malaria di Desa Ondorea Kecamatan Nangapanda adalah pada kategori cukup yaitu 85,39%, yang memiliki pengetahuan baik 6,34% dan yang memiliki pengetahuan sedang 7,87%. Sikap masyarakat tentang penggunaan kelambu adalah pada kategori baik yaitu 99,4%, yang memiliki sikap cukup 0,56%. Disimpulkan tidak ada hubungan antara tingkat pengetahuan dengan perilaku penggunaan kelambu akan tetapi ditemukan adanya hubungan antara sikap keluarga dengan perilaku penggunaan kelambu sebagai upaya pencegahan Malaria di Desa Ondorea Kecamatan Nangapanda. Disarankan kepada responden dan anggota keluarganya supaya tetap menggunakan kelambu pada waktu tidur siang ataupun pada saat udara panas serta mencuci kelambu secara berkala sesuai aturannya.

Kata Kunci : Perilaku, Kelambu, dan Malaria

INTRODUCTION

Malaria is an infectious disease that is still a public health problem in the world, especially in developing countries with tropical climates, including Indonesia(1). This disease affects the high mortality rate for infants, toddlers and pregnant women(2). In addition, malaria directly causes anemia and can reduce work productivity(3). *World Malaria Report*the in 2011 states that malaria occurs in 106 countries and infects 3.3 billion of the world's population who live in areas at risk of contracting malaria(4). The incidence of malaria in Indonesia has shown a decline, namely 4.10 in 2005 to 1.38 in 2013(5). The incidence of malaria in Ondo Rea Village, Nangapanda District in 2017 was 24% and in 2018 was 8%. Insecticide-treated mosquito nets have been distributed to every family (Puskesmas Nangapanda, 2018)(6). In its use, there are still families who say that the mosquito nets they received were not used at nighttime, some even used it as a hedge.

The national prevalence of malaria based on the 2013 Riskesdas was 0.6% where the provinces with API above the national average were West Nusa Tenggara, Maluku, North Maluku, Central Kalimantan, Bangka Belitung, Kepulauan Riau, Bengkulu, Jambi, Central Sulawesi, Gorontalo, and Aceh(7)(8). The highest prevalence rates were found in eastern Indonesia, namely in West Papua (10.6%), Papua (10.1%) and East Nusa Tenggara (4.4%). Ondorea Village in Nangapanda Subdistrict, Ende Regency is one of the villages in East Nusa Tenggara which is a province with APIs above the national average(7)(9).

Efforts to reduce morbidity and mortality are carried out through the malaria eradication program, whose activities include early diagnosis, prompt and precise treatment, as well as vector surveillance and control in terms of public education and an understanding of environmental health, all of which are aimed at breaking the chain of malaria transmission(10)(11). Government's way to reduce morbidity and mortality, through malaria eradication programs, including early diagnosis and prompt and precise treatment, vector surveillance and control, this is aimed at breaking the chain of transmission(12)(13). Control is also carried out using chemical, biological, environmental management and integrated control. In the NMTDP (National Medium Term Development Plan), malaria control indicators reduce the malaria morbidity rate to below 1 per 1,000 population, so that Indonesia will be free of malaria by 2030(14)(15).

Malaria control that is currently being carried out in Indonesia is an integrated control, namely a combination of several methods including vector control, preventive therapy, diagnostic tests, treatment with artemisinin (ACT) and strengthening surveillance.(5)(9). Vector control is carried out by taking approaches and considerations according to the environmental needs of the local community. Integrated control through vector control aims to reduce contact between

humans and vectors and protect humans from the bites of mosquitoes infected with the malaria parasite. One of the efforts to protect against mosquito bites is the use of a mosquito net, the use of a mosquito net is a form of community participation in efforts to prevent malaria transmission that is *personal protection*(16)(17).

The distribution and use of *Insecticide Treated Nets* (ITNs), especially *Long Lasting Insecticidal Nets* (LLINs) is one of the main interventions considered effective in malaria prevention and control recommended by WHO with the aim of achieving the *Millennium Development Goals* (MDGs) target.(5)(18)(17). Insecticide-treated mosquito nets can also be an alternative for malaria vector control in areas where people reject *the Indoor Residual Spraying* (IRS) method or it can be an additional effort to prevent malaria transmission(17). The distribution of *Long Lasting Insecticidal Nets* (LLINs) in Indonesia has been carried out since 2006, while the free treatment using ACT has been carried out since 2004(17).

One of the preventive measures for malaria that is still being implemented is to use insecticide-treated bed nets or polishing bed nets, as recommended by WHO since November 2004. Insecticides used in bed nets are safe for humans and have been used by many countries(19). The insecticide-treated mosquito net program is an alternative for malaria vector control in areas where mosquitoes bite inside the house. The use of insecticide-treated bed nets can also be an additional effort to prevent malaria transmission by using insecticide-treated bed nets.(17).

The district government of Ende targets that by 2022, malaria will be eliminated, this is a joint commitment that has been stated in the NMTDP. The research objective was to determine family behavior in using mosquito nets as an effort to prevent malaria in Ondorea Village, Nangapanda District. The specific objectives of this study were to identify knowledge and attitudes of the family about malaria in the use of mosquito nets, further identifying the relationship between knowledge, family attitudes with family behavior in using mosquito nets. It is hoped that the results of this study can provide an overview of family behavior in using mosquito nets as an effort to prevent malaria so that it can be an input for health workers in implementing health promotion programs.

RESEARCH METHODS

This research was a descriptive survey research with a "*cross sectional*" design. The sample in this study were all families in the Ondorea Village area, amounting to 178 families. The location was Ondorea Village, Nangapanda District, which was held in August - October 2019. The instrument used was a questionnaire, data collected in the form of primary data were obtained

from interviews. Before analyzing the collected data, it was processed manually, namely Editing (checking data), coding (coding), data entry (entering data) and tabulating (tabulating). Data analysis used descriptive analysis, for the knowledge questionnaire, each question was given a value of 1 if the respondent answered correctly, and 0 if the answer was wrong. The attitude questionnaire was given a score of 1 if the answer is yes, and 0 if the answer is no, likewise the behavior questionnaire was given a score of 1 if it answers yes, and 0 if it answers no. The next assessment was determined by the categories: Good = 75-100%, Enough = 50-74%, Less = <50%. Furthermore, the results were analyzed using the Chi-square statistical test to analyze the relationship between knowledge and attitudes towards family behavior in the use of bed nets. This research has received ethical permission from the Research Ethics Commission of Poltekkes Kemenkes Kupang with Number LB.02.03/1/0009/2019 dated July 26, 2019, all respondents were asked for willingness by signing an informed consent.

RESULTS AND DISCUSSION

This study used all subjects in the group as a samplenamely 178 families who have received insecticide-treated mosquito nets from the Nangapanda Health Center. The characteristics of the respondents are shown in table 1 below.

Table 1 Characteristics of respondents

Variable	Amount	Percentage
Gender		
Male	150	84.2%
Female	28	15.7%
Age		
19-29 years old	20	11.23%
30-38 years old	50	28%
≥ 39 years old	108	60.67%
Education		
Elementary	39	22%
Junior High	83	46.6%

High school	48	27%
College	8	4.5%
Occupation		
Farmer	132	74.1%
Civil servants	32	18%
Private / Employee	14	2.24%
Family Income		
> Rp. 1,000,000	148	83.14%
<Rp. 1,000,000	30	16.85%
Number of Family Members		
1-4 people	52	29.21%
≥ 4 person	126	70.9%
Total	178	100%

The table above shows that the majority of household respondents are male, 84.2%, age ≥ 39 years as much as 60.67%, junior high school education as much as 46.6%, work is dominated by farmers, 74.1%, and family income.> Rp. 1,000,000 83.14% and the number of family members ≥4 people is 70.9%. The next analysis is to examine the relationship between the level of knowledge and family behavior in the use of mosquito nets shown in Table 2.

Table 2 The Relationship between Knowledge and the Behavior of Using Bed nets Ondorea Village, Nanga District

		Behavior			Total	*p* value
		Good	Enough	Moderate		
Knowledge	Good	8 4.4%	3 1.6%	1 0.5%	12 6.74%	
	Enough	133	19	0	152	

		74.7%	10.6%	-	85.39%	0.07
	Less	2	11	1	14	
		1.1%	6.1%	0.5%	7.87%	
Total		143	33	2	178	
		80.3%	18.5%	1.1%	100.0%	

Table 2 above shows that the level of family knowledge is at a sufficient criterion of 85.39% with community behavior in good criteria of 80.3%. The results of the analysis showed a p value> 0.05 (0.007), meaning that there was no relationship between the level of knowledge and family behavior. The next analysis is to examine the relationship between family attitudes and usage behavior in mosquito nets shown in Table 3.

Table 3 The Relationship of Family Attitudes Toward Mosquito Net Use Behavior in Ondorea Village, Nanga District

		Behavior			Total	*P* value
		Good	Enough	Moderate		
Attitude	good	142	33	2	177	
		79.8%	18.5%	1.1%	99.4%	
	enough	1	0	0	1	
		0.5%	0%	0%	0.56%	0,000
	less	0	0	0	0	
		0%	0%	0%	0%	
Total		143	33	2	178	
		80.3%	18.5%	1.1%	100.0%	

Table 3 above shows that family attitudes are in good criteria, namely 99.4% and family behavior is in good criteria 80.3%. Further analysis showed that the p value $p \leq 0{,}05$ (0.000) means that there is a relationship between attitude and the behavior of using mosquito nets.

This research was conducted in Ondorea Village, Nangapanda District with 178 families of respondents. The purpose of this study was to describe the knowledge, attitudes and relationships with family behavior in using mosquito nets as an effort to prevent malaria in Ondorea Village, Nangapanda District.

The respondent's level of knowledge about malaria and the use of bed nets shows that the category is sufficient(152 people = 85.39%) as much as (14 people = 7.87%) had less knowledge, and a small proportion of respondents (12 people = 6.74%) had good knowledge about malaria and the use of bed nets. Only a small part of the responsiveness in this study had good knowledge, supported by research data which showed that in general the respondents did not know the protozoa that causes malaria and the types of mosquitoes whose bites can transmit malaria. This can also be caused byIn terms of socio-demographics, the education of respondents at the time of the study was mostly elementary education (64.61%) and the least educated respondents graduated college (2.81%).

Septiyani, et al reported from Purworejo District, 2018 that 69% of respondents had good knowledge about malaria, and the use and care of LLIN. The percentage of good and bad attitudes received by the LLIN program by respondents was almost the same with the ratio between good and bad attitudes 1.3: 1. From a total of 100 respondents, 63% of respondents are willing to install LLIN and 53% sleep in LLIN every night, this means that of the 63 respondents who installed LLIN there are 10 respondents who do not sleep in LLIN every night. The practice of sleeping in LLIN every night even though the temperature is hot and there are no mosquitoes is more found in respondents who do not work and have a level of knowledge about usage(20)

Further analysis in this study shows that there is no relationship between the level of knowledge and the behavior of using bed nets. The level of family knowledge is in the criteria of sufficient 85.39% with community behavior in good criteria 80.3%. The analysis results showed a p value> 0.05 (0.007). Community behavior in using mosquito nets is not only supported by knowledge but also other factors. Other factors are hereditary experiences about Malaria infection, support from Puskesmas, support from community leaders.

Although respondents in this study only have sufficient knowledge about malaria and the use of bed nets However, they know where the malaria mosquitoes live and how to prevent mosquito bites, this is due to the information about malaria prevention at the time of distribution of the bed nets by health workers. This is evidenced by 100% of respondents said they would accept if there was distribution of mosquito nets, 99.4% of respondents said they would still wear a distribution mosquito net even though it contains anti-mosquito substances, 96% of respondents

said that the mosquito nets distributed are not used to catch fish / fence off the plants, and all they use to fence the plants is the damaged / torn mosquito net. Only 33% of respondents said that they still use a mosquito net at nap time, this shows that there are 67% of respondents who do not use a mosquito net at nap time. Thus, this means that people still need to be provided with health education about the use of mosquito nets during the day.

Different results have been reported by several previous studies. Wuissan, et al in Manado said there was a relationship between knowledge and work with adherence to using a mosquito net, and there was no relationship between education and adherence to using a mosquito net(21).

Bagaray et al's research in Southeast Maluku concluded that there was a relationship between knowledge about malaria, the use of mosquito nets, night out activities with the incidence of malaria, there was a relationship between the use of a mosquito net, the use of long sleeves / trousers, the presence of a cattle pen, house wall construction and the incidence. malaria with incidence of malaria. The p-value and OR values are (p = 0.005, OR = 3.850), (p = 0.011, OR = 3.375), (p = 0.004, OR = 4.167), (p = 0.021, OR = 2.979), (p = 0.021, OR = 2.979), respectively. = 0.020, OR = 3.032).(22)

Kalangie, concluded that there was a relationship between the use of mosquito repellents, the use of bed nets, and the incidence of malaria with a value of p = 0.000; OR = 5,979; 95% CI = 2.285 - 15.640, and p = 0.04; OR = 4,727; 95% CI = 0.938-23. There is no relationship between nighttime spending habits and the incidence of malaria with a p value of 0.07 OR = 0.434.(16)

Anjasmoro R et al reported that there was a relationship between the condition of the walls of the house and the presence of livestock with the incidence of malaria in the working area of the Rembang Community Health Center, Purbalingga Regency. There is no relationship between the presence of ventilation gauze, the presence of bushes, the presence of standing water, the condition of the salak (snakefruit) garden, the use of mosquito repellents, the use of mosquito nets, and the habit of going out at night with the incidence of malaria in the working area of the Rembang Community Health Center, Purbalingga Regency.(23).

Based on the results of research on the attitude of respondents about the use of mosquito netsshows that of the 178 respondents studied, Most of the respondents have a good attitude about the use of mosquito nets (99.44%), and a small proportion of respondents have sufficient attitudes about the use of mosquito nets (0.56%). Further analysis showed that the p value < 0.05 (0.000) means that there is a relationship between attitude and the behavior of using mosquito nets. Ora, et al (2014) from West Sumba, NTT also reported that the majority of respondents (54.70%) used bed nets well. The variables with the most dominant influence on the behavior of using bed nets were the perception of support from the head of the family, the variable perception of malaria and

the use of the mosquito net, attitudes towards the use of the mosquito net, the perception of the support of the head of the family in the use of the mosquito net, and exposure to information about the disease.(19).

The results showed that even in a preliminary study There is still a family admission saying that the mosquito nets they received were not used at nighttime sleep, some even used it as a hedge, but at the time of the family research they said that because of the large number of mosquitoes that breed, they really need a mosquito net, so they make use of it. who have been distributed and hope that there will be more distribution of mosquito nets, instead of being damaged, because not all respondentswant to buy a mosquito net yourself as a replacement for a damaged one. Meanwhile, when the weather is hot, only 71 respondents (39.89%) still use a mosquito net, where there are 60.11% of respondents who do not use a mosquito net during hot weather.

There are 5.62% of respondents who do not wash the mosquito nets regularly. In addition, at the time of the study, respondents who always washed the mosquito nets regularly said that when they washed the mosquito nets in the river, many animals in the river such as crabs and prawns died. This shows that the respondents do not understand how to wash the insecticide-treated bed nets properly, so that health education is still needed on how to maintain insecticide-treated nets.

The proper way to wash mosquito nets includes: washing using detergent, not rubbing, brushing, or rubbing (bar soap should not be used, because it contains high levels of soda). Washing family size mosquito nets (area ± 19 m^2), required ± 1 liter of water, with detergent 2 grams / liter. The mosquito net is put in a bucket of detergent solution (should not be soaked), then dipped repeatedly, until the dirtfelt lost.Mosquito nets should not be washed in the washing machine. The mosquito nets are rinsed with clean water three times. The water used for washing the mosquito nets must not be thrown into fish ponds or ditches and rivers whose water is used for fish maintenance. Water used for washing the mosquito nets should be disposed of in the excavated hole, 0.5 meters deep and far from water sources. After washing the mosquito net, it should not be wrung out, just drain it. The mosquito nets are dried in the shade (protected from direct sunlight). Mosquito nets are well cared for, so that they don't tear quickly, tied or rolled up when not in use(20)(2).

Arsin AA, et al reported that the method of use, frequency of use and treatment of insecticide-treated bed nets were associated with the incidence of malaria ($p < 0.05$), while the time of use and the material of the bed nets were not associated with the incidence of malaria ($p > 0.05$).

It is recommended to the community that the mosquito net is used every time they sleep, especially at night so that they are not bitten by mosquitoes, every family needs to be given an understanding of the importance of using a mosquito net to reduce the incidence of malaria, a mosquito net that has been washed repeatedly needs to be given more pesticides so that the function of killing mosquitoes is not reduced, and The government should provide mosquito net assistance in malaria endemic areas according to geographic conditions.(24)

Another factor that influences the incidence of malaria was reported by Falah, et al. 35.63% of respondents work as forest and agricultural workers who are at high risk of contracting malaria. (p value: 0.000 OR: 7.34; 95% CI = 3.55-15.17). Environmental factors are not associated with malaria incidence(25). Ngambut et al from Prop. NTT reports that the description of community behavior in preventing malaria shows that 5.7% of people do nothing to protect themselves from mosquito bites. As many as 74.4% of the people sometimes use a mosquito net. In terms of treatment-seeking behavior, as many as 49% of the community used traditional medicine, bought medicine at the nearest shop, and some did not do anything. In addition, most sufferers seek help from health workers after more than four days of experiencing symptoms.(4)

Rangkuti AF, reported the factors that were significantly associated with the incidence of malaria, namely the use of mosquito nets, use of mosquito repellent, going out at night, the density of clothes, and standing water with p value and OR, respectively (p value: 0,000; OR : 3,573; 95% CI: 1,732-7,373), (p value: 0,029; OR: 2,719; 95% CI: 1,087-6,798), (p value: 0.01; OR: 3,254; 95% CI: 1,563-6,777), (p value: 0.013; OR: 2.474; 95% CI: 1.205-5.076) (p value: 0.033; OR: 2.33; 95% CI: 1.06-5.118). (15)

Rachman I et al showed that most houses had a temperature suitable for mosquito life, namely 48 (52.2%) respondents, house humidity suitable for mosquito activity, namely 54 (58.7%), and respondents who did not use mosquito nets, namely 60 (65 , 2%) of respondents. Based on the results of research, the community can participate in reducing the incidence of malaria in Durian Luncuk Village by increasing public awareness that the importance of using a mosquito net while sleeping.(26)

Hasyim reported that environmental risk factors for standing water (breeding place) were associated with the incidence of malaria with a value of p = 0.000. Multivariate analysis found that the main determinant of malaria incidence was the breeding place around the respondent's house with an odds ratio (OR) = 5.034 and 95% CI = 2.65 _ 9.56. Respondents who live around the breeding place have a 5.03 times greater risk of suffering from malaria compared to respondents around the house where there is no breeding place after controlling for the variable distance from

the house to the breeding place, house ventilation, use of mosquito nets, use of mosquito repellent, and habits. go out at night(3)

Lina Habdayani et al reported that the distance from the garden to the house, the habit of going out at night and the habit of wearing a mosquito net were risk factors for the transmission of vivac malaria in South Bengkulu Regency. The distance between the fields and the house and the use of mosquito coils were not related to the transmission of vivac malaria in Bengkulu Selatan Regency(27)

Aisyah et al concluded the relationship between the use of insecticide-treated bed nets and the incidence of malaria in children aged 0-4 years in Galang Community Health Center, Galang District, Batam City in 2013. there was a significant relationship between the types of bed nets (OR = 4.6), the length of time using the bed nets (OR = 2, 9), how to wash the bed nets (OR = 3,6), how to dry the mosquito nets (OR = 2.8), and re-dyeing the mosquito nets (OR = 3,6) had a significant relationship with the incidence of malaria. Education (OR = 2.9), occupation (OR = 2.8), and length of stay (OR = 3.1) had a significant relationship with the incidence of malaria. Logistic regression analysis found that the highest and lowest odds ratios were non-insecticide-treated mosquito nets, length of stay ≤ 2 years and how to wash by rubbing, brushing and soaking.(2)

CONCLUSION

From the results of this study it was concluded that the level of public knowledge in the moderate category was 85.39%, those who had good knowledge were 6.34% and those who had moderate knowledge were 7.87%. The public attitude about the use of mosquito nets is in the good category, namely 99.4%, which has a sufficient attitude of 0.56%. There is no relationship between the level of knowledge and the behavior of using mosquito nets, but it is found that there is a relationship between family attitudes and behavior using bed nets.

REFERENCES

1. Kristina, R. H., & Peni JA. Compliance Of Malaria Drug Intake And The Using Of Bed Nets Of Malaria Patients In Public Health Center Of Waipukang, Lembata District, East Nusa Tenggara In 2018. Proceeding 1st Int Conf Heal Polytech Kupang. 2018;153–68.
2. Aisyah RA, Susanna D. Pemakaian Kelambu Berinsektisida pada Anak Usia 0-4 Tahun terhadap Kejadian Malaria. Kesmas Natl Public Heal J. 2014;9(2):194.
3. Hasyim H, Camelia A, Fajar NA. Determinan Kejadian Malaria di Wilayah Endemis. Kesmas Natl Public Heal J. 2014;291.
4. Ngambut K, Sila O. Faktor Lingkungan dan Perilaku Masyarakat Tentang Malaria di

Kecamatan Kupang Timur Kabupaten Kupang. Kesmas Natl Public Heal J. 2013;7(6):271.
5. WHO WHO. Guidlines for The Treatment of Malaria. WHO Press Geneva Switzerland. 2009;21(1):31–9.
6. NTT DP. Profil Kesehatan Provinsi Nusa Tenggara Timur. 2018;1–146. Available from: www.depkes.go.id/resources/download/profil/PROFIL_KES.../19_NTT_2015.pdf
7. Badan Penelitian dan Pengembangan Kesehatan. Riset Kesehatan Dasar 2013. Riskesdas. 2013;1–384.
8. Badan Penelitian dan Pengembangan Depkes RI. Riset Kesehatan Dasar Departemen Kesehatan Republik Indonesia. RiskesdasDepkes RI. 2007;
9. WHO WHO. Malaria Case Management- Operations Manual. WHO Press Geneva Switzerland. 2009;
10. Kinansi RR. Pengobatan Malaria Kombinasi Artemisinin (ACT) Di Provinsi Papua Barat Tahun 2013 Artemisinin-based Combination of Antimalaria Therapy (ACT) in West Papua at 2013. Balaba. 2017;13(1):43–54.
11. Selasa P. Implementation of malaria elimination policy at Kupang City Public Health Center. J Info Kesehat. 2017;15(1):97–109.
12. Kristina RH. Screening Test penderita Malaria Dengan Gold Standar Uji Laboratorium Untuk Validasi Kasus Malaria Positif Di Wilayah Puskesmas Lewoleba Dan Puskesmas Waipukang Kabupaten Lembata, Propinsi Nusa Tenggara Timur Tahun 2016. J Info Kesehat. 2016;16(1):164–77.
13. Resi EM. Effect of antimalaria herbal sambiloto (Andrographis paniculata Nees) on morphology changes of development and parasite Plasmodium Falciparum. J Info Kesehat. 2014;12:661–6.
14. Faridah L, Albert C, Fauziah N. Effectiveness of Various Mosquito Attractant Solutions to Control Mosquito Population Efektivitas Berbagai Larutan Penarik Nyamuk untuk Mengontrol Populasi Nyamuk. Glob Med Heal Commun. 2019;7(April):21–6.
15. Rangkuti AF, Sulistyani S, W NE. Faktor Lingkungan dan Perilaku yang Berhubungan dengan Kejadian Malaria di Kecamatan Panyabungan Mandailing Natal Sumatera Utara. Balaba J Litbang Pengendali Penyakit Bersumber Binatang Banjarnegara. 2017;13(1):1–10.
16. Kalangie F, Rombot D V, Kawatu PAT. Faktor-Faktor Yang Berhubungan Dengan Kejadian Malaria Di Wilayah Kerja Puskesmas Touluaan Kabupaten Minahasa Tenggara. J Media Kesehat. 2013;7(3).
17. Ikawati B, Yunianto B, D RAP. Efektifitas Pemakaian Kelambu Berinsektisida Di Desa Endemis Malaria Di Kabupaten Wonosobo. Balaba J Litbang Pengendali Penyakit Bersumber Binatang Banjarnegara. 2010;6(2):1–6.
18. World Health Organization. Assessment and Monitoring of Antimalarial Drug Efficacy for the Treatment of Uncomplicated Falciparum. WHO Press. Geneva Switzerland. 2003.
19. Ora AT, Widjanarko B, Udijono A. Perilaku Ibu Rumah Tangga dalam Menggunakan Kelambu sebagai Upaya Pencegahan Malaria di Wilayah kerja Puskesmas Kabukarudi Kabupaten Sumba Barat Tahun 2014. J Promosi Kesehat Indones. 2015;10(1):17–32.
20. Septiyani DD, Wuryanto MA, Udiyono A. Gambaran Pengetahuan, Sikap dan perilaku Pemakaian Kelambu Berinsektisida Tahan Lama (KBTL) Studi Di Wilayah Kerja Puskesmas Kaligesing Kabupaten Purworejo. J Kesehat Masy. 2018;6(5):259–66.
21. Wuisan M, Ratag B, Kepel BJ. Hubungan Antara Pengetahuan dan Faktor Sosio-Demografi dengan Kepatuhan Menggunakan Kelambu pada Masyarakat di Kelurahan Gunung Woka Bota Bitung. Fak Kesehat Masy Univ Sam Ratulangi Manad. 2017;
22. Bagaray EF, Umboh JML, Kawatu PAT. Hubungan Antara Faktor-faktor Risiko Dengan Kejadian Malaria di Kecamatan Kei Besar Kabupaten Maluku Tenggara Provinsi Maluku. J Media Kesehat [Internet]. 2013;1(1):1–8. Available from: http://fkm.unsrat.ac.id/wp-content/uploads/2015/02/evangelin-bagaray_101511096_artikel-ilmiah.pdf
23. Anjasmoro R. Faktor-Faktor yang Berhubungan dengan Kejadian malaria di WIlayah Kerja Puskesmas Rembang Kabupaten Purbalingga. Masyarakat, J Kesehat. 2013;2(1).
24. Arsin AA, Nasir M, Nawi R. Hubungan Penggunaan Kelambu Berinsektisida dengan Kejadian malaria di Kabupaten Halmahera Timur. J Masy Epidemiol Indones. 2013;1(3):169–259.
25. Falah W, Meiliasari F. Hubungan Faktor Pekerjaan dan Lingkungan Dengan Kejadian

Malaria Di Kecamatan Jaro Kabupaten Tabalong. An-Nadaa. 2014;1(1):21–5.
26. Rachman I, Harahap PS, Alanuari A, Suhermanto S. Suhu, Kelembaban Dan Penggunaan Kelambu Berkaitan Dengan Tingginya Kejadian Malaria Di Desa Durian Luncuk. J Endur. 2017;2(2):194.
27. Lina Handayani, Pebrorizal S. Faktor Risiko Penularan Malaria Vivak. Ber Kedokt Masy. 2008;24(1):38–43.

BEHAVIOR OF THE USE OF MOSQUITO NET AS A PREVENTION OF MALARIA IN ONDOREA VILLAGE, NANGA PANDA SUB-DISTRICT IN 2019

ORIGINALITY REPORT

20%	19%	10%	3%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	garuda.ristekdikti.go.id Internet Source	1%
2	r2kn.litbang.kemkes.go.id Internet Source	1%
3	www.coursehero.com Internet Source	1%
4	pt.scribd.com Internet Source	1%
5	www.researchgate.net Internet Source	1%
6	journal.fkm.ui.ac.id Internet Source	1%
7	ojs.uniska-bjm.ac.id Internet Source	1%
8	core.ac.uk Internet Source	1%
	media.neliti.com	

9	Internet Source	1 %
10	link.springer.com Internet Source	1 %
11	Dyah Suryani, Sony Hendriyadhi, Suyitno Suyitno, Sunarti Sunarti. "Kepemilikan Jamban Sehat di Masyarakat Pesisir Desa Binjai Kecamatan Bunguran Barat Kabupaten Natuna", JURNAL DUNIA KESMAS, 2020 Publication	1 %
12	ejournal.unisba.ac.id Internet Source	1 %
13	ejournal.unsrat.ac.id Internet Source	1 %
14	jurnal.csdforum.com Internet Source	1 %
15	medic.upm.edu.my Internet Source	<1 %
16	jurnal.utu.ac.id Internet Source	<1 %
17	garuda.kemdikbud.go.id Internet Source	<1 %
18	semnaskesling.poltekeskupang.ac.id Internet Source	<1 %

19	"Malaria Control and Elimination", Springer Science and Business Media LLC, 2019 Publication	<1 %
20	docslib.org Internet Source	<1 %
21	ejournal.litbang.kemkes.go.id Internet Source	<1 %
22	ejurnal.undana.ac.id Internet Source	<1 %
23	e-journal.akperakbid-bhaktihusada.ac.id Internet Source	<1 %
24	repository.uhamka.ac.id Internet Source	<1 %
25	www.ajtmh.org Internet Source	<1 %
26	ejournal.poltekkesaceh.ac.id Internet Source	<1 %
27	Leo Medianto Faziqin, Dalilah, Dwi Handayani, Chairil Anwar, Susilawati. "Contamination of Soil Transmitted Helminths (STH) Eggs in Raw Vegetables at Street Food Stalls and Restaurant in Lorok Pakjo Village, Palembang", Bioscientia Medicina : Journal of Biomedicine and Translational Research, 2021 Publication	<1 %

28	saspublisher.com Internet Source	<1 %
29	teknolabjournal.com Internet Source	<1 %
30	Submitted to Morgan State University Student Paper	<1 %
31	Submitted to Universitas Airlangga Student Paper	<1 %
32	fr.scribd.com Internet Source	<1 %
33	english.pravda.ru Internet Source	<1 %
34	123dok.com Internet Source	<1 %
35	Mebrate Dufera, Oljira Kenea, Geleta Tadele. "Malaria Incidence and Associated Risk Factors in and Around Anger Gute Town, Western Ethiopia", Research Square, 2020 Publication	<1 %
36	Uly Agustine, Maria Endang, Era Kale, Emilia Akoit. "Risk Factors of Malaria Events among Pregnant Women in East Sumba Regency, Indonesia", Research Square, 2020 Publication	<1 %

37	Yosephina Gunawan, Maria Christina Endang Sukartiningsih, Leni Landudjama, Martha Meti Kody, Uly Agustine. "An Overview of the Theory of Planned Behavior Approach in Nursing Care for Dengue Fever Patients", Open Access Macedonian Journal of Medical Sciences, 2022 Publication	<1 %
38	ijaers.com Internet Source	<1 %
39	jurnal.globalhealthsciencegroup.com Internet Source	<1 %
40	stikesks-kendari.e-journal.id Internet Source	<1 %
41	ejournal.ukrida.ac.id Internet Source	<1 %
42	repository.unhas.ac.id Internet Source	<1 %
43	Cecilia S. Akay, Josef S. B. Tuda, Victor D. Pijoh. "GAMBARAN PENGETAHUAN MASYARAKAT TENTANG PENYAKIT MALARIA DI KECAMATAN SILIAN RAYA KABUPATEN MINAHASA TENGGARA", Jurnal e-Biomedik, 2015 Publication	<1 %

44	Didik Sumanto, Sayono Sayono, Yagoob Garedaghi, Martini Martini, Wahyu Handoyo, Tri Dewi Kristini. " LDH Detected in Etawa Crossbred Goats Using Polymerase Chain Reaction Methods ", International Journal of Medical Parasitology and Epidemiology Sciences, 2021 Publication	<1 %
45	Farizka Shafa Nabila, Mahendra Fakhri, MAHIR PRADANA, Budi Rustandi Kartawinata, Anita Silvianita. "Measuring Financial Satisfaction of Indonesian Young Adults: A SEM-PLS Analysis", Research Square Platform LLC, 2022 Publication	<1 %
46	Irfan Irfan, Ririn Widyastuti, Fitri Handayani. "Pemanfaatan Video Kehamilan Berkualitas Untuk Meningkatkan Pengetahuan Ibu Hamil Di Masa Pandemic Covid 19", JURNAL KREATIVITAS PENGABDIAN KEPADA MASYARAKAT (PKM), 2021 Publication	<1 %
47	docplayer.info Internet Source	<1 %
48	etd.repository.ugm.ac.id Internet Source	<1 %

49	Nofri Hasrianto Nofri, Nurvi Susanti, Uswatun Khasanah, Yessi Harnani. "PENGGUNAAN SMARTPHONE PADA SISWA SDN 014 SUNGAI PUTIH KECAMATAN TAPUNG KABUPATEN KAMPAR", Jurnal Kesehatan Komunitas, 2020 Publication	<1%
50	Debby J. Suhanda, Damajanty H. C. Pangemanan, Juliatri .. "GAMBARAN KEBUTUHAN PERAWATAN PERIODONTAL PADA PEROKOK DI DESA MATUNGKAS KECAMATAN DIMEMBE", e-GIGI, 2014 Publication	<1%
51	Margareta V. Babo, Ig. A. Dwiatmoko. "ANALISIS FAKTOR-FAKTOR YANG BERHUBUNGAN DENGAN TERJANGKITNYA PENYAKIT MALARIA DENGAN MENGGUNAKAN MODEL REGRESI LOGISTIK BINIMIAL", Asimtot : Jurnal Kependidikan Matematika, 2020 Publication	<1%
52	dahlaniskan.wordpress.com Internet Source	<1%

Exclude quotes	On	Exclude matches	Off
Exclude bibliography	On		

BEHAVIOR OF THE USE OF MOSQUITO NET AS A PREVENTION OF MALARIA IN ONDOREA VILLAGE, NANGA PANDA SUB-DISTRICT IN 2019

GRADEMARK REPORT

FINAL GRADE

/0

GENERAL COMMENTS

Instructor

PAGE 1

PAGE 2

PAGE 3

PAGE 4

PAGE 5

PAGE 6

PAGE 7

PAGE 8

PAGE 9

PAGE 10

PAGE 11

PAGE 12

PAGE 13

PAGE 14