



**EFFECT OF KNOWLEDGE, ATTITUDE TO OVITRAP EDUCATION TO THE
RESPONDENT OF THE 07 REJANG LEBONG STATE SCHOOL**

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ABSTRACT

Efforts to prevent mosquito larvae by fogging, abate powder, adverse effects on the environment. Mosquito population increases at the transition of the rainy and dry seasons, becoming a problem. Researchers are interested in minimizing mosquito larvae by providing education on the knowledge and attitudes of respondents in making mosquito trap ovitrap tools. The purpose of knowing the effect of knowledge and attitudes of respondents in making ovitrap. Location at State Elementary School 07 Rejang Lebong. Quasi-experimental research, a sample of 50 respondents, 25 control groups and 25 treatment groups. One month study. Wilcoxon Sign Rank statistical test. Age characteristics results were mostly 27 were 12 years old (54%), the gender were mostly 29 women (58%). The results of the statistical knowledge of most of the 12 respondents were good (48%), P value 0.025, there was a significant effect. The attitude of most of the 13 respondents was good (52%), P value 0.017, there was a significant effect between attitudes and mosquito trap ovitrap simulation. Routine advice put a mosquito trap ovitrap as needed.

KEYWORDS: Knowledge, attitude and ovitrap.

PRELIMINARY

Aedes aegypti larvae if not monitored will continue to develop into adult mosquitoes, if the mosquito contains Aedes aegypti, it can cause dengue hemorrhagic fever (DHF) in humans whose blood is sucked by the mosquito.

Cases of dengue hemorrhagic fever (DHF) in Indonesia in 2022 were 52,313 with 488 deaths in 451 districts/cities in 34 provinces.^[7]

The Health Office of Rejang Lebong district has carried out fogging in 15 sub-districts because there have been 23 cases of DHF that have attacked residents.^[5]

The highest index of Aedes egypti larvae in TPA is House Index (HI) 87.10%, Container Index (CI) [drum 16.13%] Breteau Index 72.97%, df 6.3 at high density and number of free larvae. in the barrel, there were 14 positive larvae of A. aegypti (62.16%). The high density level and the larva-free number (62.16%) are below the national level of 95% so that it can be categorized as safe, but we need to be careful because the larva-free

number sometimes changes depending on climate and weather.^[3]

The results of the study were that most of the 28 mosquitoes (77.8%) of the 36 mosquitoes were trapped in a white light ovitrap device in 50 ml of fermented water within 24 hours. Based on Chi-square analysis, P value = 0.004 < 0.05. So Ho is rejected and Ha is accepted statistically, there is a statistically significant relationship between the effectiveness of Modified Ovitrap against mosquitoes trapped in the white light ovitrap, with the fermentation bath. 4.10 times the presence of trapped mosquitoes was found.^[1]

Among 167 participants, the majority of participants (87.9%) were unaware of dengue infection and most of them reported initial self-medication (95.2%). The mean days of fever before attending to the HTD was 4.9 1.7 days. Outpatient cases reported seeking care significantly earlier than inpatient cases (mean: 3.1 days vs. 5.0 days; p < 0.001). The majority of patients believed that dengue infection has a high mortality rate (63%) and must be treated in hospital (91.3%),

highlighting the lack of understanding and misperceptions regarding dengue-related knowledge in the general population. Patients who reported recent or current dengue infection in their family or neighborhood sought medical care early and reported good preventive practices. Health education should focus on the adult population to improve awareness of dengue symptoms and promote early treatment-seeking behavior.^[11]

Our results demonstrate that using the door-to-door campaign as a prerelease method can raise community awareness, reduce the initial mosquito population, and potentially improve sit efficacy. the participation of key persons, such as scientific experts and municipality members, in the implementation of the interventions is crucial for the successful engagement of community and may prove important in granting permission to enter their private properties for entomological surveillance.^[12]

McNemar test results showed significant results on knowledge (0.018), attitude (0.033) and action (0.00). Increased knowledge still needs to be pursued through socialization of the manufacture and use of Ovitrap. It is hoped that this activity can be carried out every year as an effort to reduce the risk of DHF in Banjarbaru City.^[13]

The result is that there is a difference in the mean number of trapped mosquitoes based on the type of autocidal ovitrap ($p < 0.05$). The mean of mosquitoes trapped outside the house was greater than inside the house ($p < 0.05$). There was no difference in the larval density index between the treatment groups during the intervention ($p > 0.05$). The conclusion of this study is that the average number of trapped mosquitoes is more in the autocidal ovitrap attractant, more trapped mosquitoes are found outside the house, but there is no difference in the larval density index between the treatment groups during the intervention.^[6]

Human behavior is an activity of the human itself. Operationally, behavior can be interpreted as a response of an organism or a person to stimuli from outside the subject. Behavior can be interpreted as an action reaction of organisms to their environment.^[9]

Knowledge is the result of human sensing, or the result of someone knowing about objects through the senses they have (eyes, nose, ears, and so on). So knowledge is

various kinds of things that are obtained by a person through the five senses. The results of human sensing, or the result of knowing someone about objects through the senses they have (eyes, nose, ears, and so on). So knowledge is various kinds of things that are obtained by a person through the five senses.^[8]

Attitude is an expression of a person's feelings that reflect his likes or dislikes towards an object. The results showed that 54.30% of respondents had low knowledge and 57.05% of respondents had a less supportive attitude towards the application of lethal ovitrap. In general, people's knowledge and attitudes towards lethal ovitrap as a vector control tool are still low. knowledge and gender variables were proven to be significantly related to the supportive attitude given by the community to the application of lethal ovitrap. Education about lethal ovitrap needs to be done before installing lethal ovitrap in the community.^[10]

Ovitrap is a tool used to break the mosquito life cycle before the mosquito pupa turns into a mosquito in a simple way.^[2]

The initial survey was carried out by researchers on Saturday 11 June 2022, around the 07 Rejang Lebong State Elementary School environment, there were puddles of water, in the gutters, toilet bowls, trash cans there were puddles of water on used drink bottles, and there were a lot of lush flower plants, which became a place to live. nesting mosquitoes. There are 2 respondents in the suspect case of dengue fever in fifth grade at the State Elementary School 07 Rejang Lebong.

RESEARCH PURPOSES

This study aims to determine the increase in students' knowledge and skills in making ovitrap mosquito traps.

METHOD

This type of research design is quasi-experimental, with a sample of 50 students attending, with the distribution of 25 students in the control group and 25 students as the treatment group. The control group was given only health education, the treatment group was given a simulation of the practice of making ovitrap mosquito traps. Knowledge and attitude variables were measured before and after treatment with a checklist. The time of the study was carried out from July 1 to August 30, 2022. Statistical test with Wilcoxon Sign Rank.

RESULTS AND DISCUSSION

Characteristics and data of respondents based on age and gender are described in table 1 below.

Age Characteristics	Frequency	%
11 years old	3	6
12 years old	27	54
13 years old	20	40
Total	50	100
Gender Characteristics	Frequency	%
Man	21	42

woman	29	58
Total	50	100

Based on table 1 of the results of the characteristics of the respondents above, the majority of respondents' age is 27 respondents aged 12 years (54%). According to^[8] said that age is a variable that is always considered in epidemiological studies which is one of the things that affects knowledge. Age is the length of time a person lives in years from birth to last birthday.

Age is the length of life in years calculated from birth. increasing age of a person can affect the increase in knowledge he acquires, but at certain ages or near old

age the ability to accept or remember knowledge will decrease.^[4]

Meanwhile, the highest number of sexes is that most of the 29 respondents are female (58%). Biological differences and biological functions of men and women are not interchangeable between the two, and their functions remain with men and women on earth. Woman is a term for human sex that is different from men. In Sanskrit the word woman is taken from the word per + empu + an. Per, has the meaning of being, and empu, which means noble, master, adept.^[4]

Table 2: Respondents' Knowledge Level of Making Mosquito Trap Ovitrap Tool.

Respondent knowledge good not	Treatment		Control	
	beginning n (%)	end n (%)	beginning n (%)	end n (%)
Not enough	9 (36)	3 (12)	7 (28)	6 (24)
enough	8 (32)	6 (24)	5 (20)	6 (24)
Good	3 (20)	12 (48)	3 (12)	3 (12)
	25 (100)	25 (100)	25 (100)	25 (100)
P value	0.014	0.025		

The statistical results in table 2 show that the knowledge in the treatment group, the final knowledge from the beginning was less than 9 respondents (36%) increased to most of the 12 respondents being good (48%), in the respondents having a P value of 0.025, while the level of knowledge in the control group initial less than 7 (28%) respondents, decreased to 6 (24%) in the final control group without treatment. The results showed that socialization education had an effect on the knowledge and attitudes of respondents towards the manufacture of mosquito trap ovitrap, based on statistical analysis.

Knowledge is the result of knowing and this occurs after people have sensed certain objects. Sensing of objects occurs through the five human senses, namely: sight, hearing, smell, taste and touch. Most of human knowledge is obtained through the eyes and ears.^[8]

Human behavior is an act or activity of the human itself which has a very wide expanse, including: walking, talking, crying, laughing, working, studying, writing, reading and so on.^[1]

Table 3: Respondents' Attitudes towards Making Mosquito Trap Ovitrap Tool.

Respondent's attitude	Treatment		Control	
	beginning n (%)	end n (%)	beginning n (%)	end n (%)
Good	12 (48)	13 (52)	13 (52)	12 (48)
not enough	13 (52)	12 (48)	12 (48)	13 (52)
Total	25 (100)	25 (100)	25 (100)	25 (100)
P value	0.027	0.017		

The statistical results in table 3 show that the attitude in the initial attitude treatment group from less than 13 respondents (52%) experienced a significant increase to most of the 13 respondents being good (52%), in the respondents having a P value of 0.017, while the attitude in the initial control group good 13 respondents ((52%), to less 13 (52%) without treatment in the control group.

The psychomotor aspect relates to the skills (skills) of a person's attitude and ability to act. The psychomotor aspect is an advanced stage of the affective aspect. If the student has received a learning experience (affective)

then he has the ability to act (psychomotor). But if seen, men tend to have better psychomotor potential than women. Self-esteem and physical condition, especially after puberty which seems to play a more dominant role than women in terms of skill level.^[1]

RESULTS AND DISCUSSION

The conclusion from this study is that there is a significant effect between providing knowledge and attitude education when simulating the manufacture of simple mosquito trap ovitrap, in class V (five)

elementary school environment 07 Rejang Lebong school environment as needed.

CONCLUSION

The conclusion in this study is that there is a significant effect between the provision of knowledge and attitude education when simulating the manufacture of a simple mosquito trap ovitrap,

Based on the results of the characteristics of the respondents above, the majority of respondents' age is 27 respondents aged 12 years (54%). Meanwhile, the highest number of genders was 29 female respondents (58%). The statistical results in table 2 show that the knowledge in the treatment group, the final knowledge from the beginning was less than 9 respondents (36%) increased to most of the 12 respondents being good (48%), in the respondents having a P value of 0.025, while the level of knowledge in the control group initial less than 7 (28%) respondents, decreased to 6 (24%) in the final control group without treatment so that the results of the study can be concluded that there is a significant effect between the knowledge of giving simple mosquito trap ovitrap simulation skills in the treatment group for the better.

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BIBLIOGRAPHY

1. Aji Rustam (2021) The Effectiveness of White Light Ovitrap with Fermentation Baths Against Trapped Mosquitoes in the Banyan Tiga Health Center 2021. health journal: multi sciences scientific journal vol 11 no 02 (2021): vol.xi.no.2.issn (p): 2067-4847 issn(e): 2686-3677.
2. Aji Rustam, et al (2020) mentoring cadres in the manufacture of mosquito trap fermented ovitrap, community service health journal (jkpm) yogyakarta. vol.1, issue 2, pages 62-66. poltekkes yogyakarta.
3. Aji Rustam, Nuhammad Totong Kamaluddin, Salni and Sriati, (2016) environmental factors and indices related to dengue vector larvae in rejang lebong district. international research journal of public and environmental health, july 2016; 3(7): 162-166, availableonlineat <http://www.journalissues.org/irjpeh/http://dx.doi.org/10.15739/irjpeh.16.021>.copyright © 2016 author(s) retain the copyright of this article issn 2360-8803. department of environmental health science of sriwijaya university, Palembang, south sumatera, indonesia.
4. Aji Rustam (2011) towards a healthy Indonesia; strategic issues around health. Publishing and Printing Agency (LP2) Stain Curup. page: 62. isbn: 978-602-8772-42-6.<http://www.staincurup.ac.id>.
5. Rejang Lebong District Health Office.(2022). endemic report profile. Rejang Lebong District Health Office. Bengkulu.
6. Indra Dwinata1, Tri Baskoro2, Citra Indriani3 (2015) autocidal ovitrap hay infusion as alternative vector control dhf at Gunungkidul district. Department of Epidemiology, Faculty of Public Health, Hasanuddin University 2 Tropical Medicine Center, Gadjah Mada University 3 Field Epidemiology (FETP) Faculty of Medicine, Gadjah University mada (dwinata_indra@yahoo.co.id)jurnal mkmi, p.125-131.
7. Ministry of Health of the Republic of Indonesia (2022). Data on cases of dengue fever in Indonesia. bureau of communication and public services, Ministry of Health, Republic of Indonesia. Jakarta.
8. Notoatmodjo, (2018). health research methodology. Bandung: rineka copyright.
9. Notoatmodjo, (2007). health promotion and behavioral science. jakarta: rineka copyright.
10. Maddusa Sri Seprianto, Afnal Asrifuddin, Ratnawati (2020) Counseling and training on making mosquito egg traps (ovitrap) at Madrasah Aliyah Darul Istiqamah Manado. journal hygiene, May-August 2020; 6; 2. issn (print): 2443-1141 issn (online): 2541-5301. pages 76-79. Faculty of Public Health, Sam Ratulangi University, Manado, North Sulawesi.
11. Pittaya Piroonamornpun, Panita Looareesuwan, Viravar Luvira (2022). Treatment-seeking behaviors and knowledge, attitudes and practices among suspected dengue adult patients at the hospital for tropical diseases, bangkok, thailand. int. j. environs. res. public health, 2022; 19: 6657. <https://doi.org/10.3390/ijerph19116657>. int. j. environs. res. public health, 2022; 19: 6657. <https://doi.org/10.3390/ijerph19116657><https://www.mdpi.com/journal/ijerph>. int. j. environs. res. public health, 2022; 19: 6657.
12. Angeliki Stefopoulou 1, Shannon L. LaDeau 2, Nefeli Syrigou 3, (2021). Knowledge, Attitude, and Practices Survey in Greece before the Implementation of Sterile Insect Technique against *Aedes albopictus*.