# Housewives Behavior in Effort to Overcome Dengue Fever

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**Abstract**. Dengue Hemorrhagic Fever is still a health problem. NTT is one of the provinces with the third highest number of DHF cases in Indonesia in 2019. Oesapa Village is the highest DHF distribution area in Kupang City, where there were 52 DHF cases in early 2019. The transmission of DHF cannot be separated from the presence of Aedes sp mosquitoes as vectors. The initial survey showed that all household in Oesapa sub-district still had a standard free larvae rate (<95%). The Ministry of Health launched the One Home One Jumantik movement to support the PSN 4M Plus acculturation program, which required the active role of the family, especially a housewife as an independent larva monitor. The general objective of this research is to find out the behavior of housewives as larva monitors at household. The research design used was Cross Sectional Study. Data were analyzed descriptively and presented in the form of narration, tables and figures. The results showed that housewives' knowledge in the prevention and control of dengue vector was classified as good category. Most housewives have a positive attitude in the prevention and control of dengue vector. Also the behavior of housewives in the efforts to prevent and control DHF vectors have been classified as good categories. The community is expected to continue to actively participate and continue to make efforts to control the vector of DHF by involving housewives as agents of change.

*Keywords: Attitude, behaviour, Dengue Hemorrhagic Fever*

**Abstrak.** Demam Berdarah Dengue masih merupakan masalah kesehatan. NTT salah satu provinsi dengan jumlah kasus DBD tertinggi ke tiga di Indonesia tahun 2019. Kelurahan Oesapa merupakan wilayah penyebaran DBD tertinggi di Kota Kupang, dimana ada 52 kasus DBD di awal tahun 2019. Penularan penyakit DBD tidak terlepas dari keberadaan nyamuk Aedes sp sebagai vektor. Survei awal menunjukkan semua RT di Kelurahan Oesapa masih memiliki nilai Angka Bebas Jentik dibawah standar (<95%). Kementerian Kesehatan meluncurkan Gerakan Satu Rumah Satu Jumantik untuk menunjang program pembudayaan PSN 4M Plus, dimana diperlukan peran aktif keluarga, terutama IRT sebagai pemantau jentik mandiri. Tujuan umum penelitian ini adalah mengetahui perilaku Ibu Rumah Tangga Sebagai Juru Pemantau Jentik di rumah tangga. Rancangan penelitian yang digunakan adalah Cross Sectional Study. Data dianalisis secara deskriptif dan disajikan dalam bentuk narasi, tabel dan gambar. Hasil menunjukkan Pengetahuan ibu rumah tangga dalam upaya pencegahan dan pengendalian vektor DBD tergolong kategori baik. Sebagian besar ibu rumah tangga mempunyai sikap yang positif dalam upaya pencegahan dan pengendalian vektor DBD. Juga Tindakan/perilaku dari ibu rumah tangga dalam upaya pencegahan dan pengendalian vektor DBD sudah tergolong kategori baik. Masyarakat diharapkan tetap berpartisipasi aktif dan terus menerus melakukan upaya pengendalian vektor DBD dengan melibatkan ibu rumah tangga sebagai agent of change.

*Kata kunci: Demam Berdarah Dengue, Perilaku, Sikap*

## Introduction

Dengue Hemorrhagic Fever / DHF is an infectious disease caused by dengue virus and transmitted by Aedes aegypti and Aedes albopictus mosquitoes. Generally characterized by fever 2-7 days accompanied by manifestations of bleeding, decreased platelet count <100,000 / mm3, the presence of plasma leakage is marked by an increase in hematocrit ≥ 20% of normal values (Ministry of Health 2013). This disease is still a global public health problem, especially in the tropics and subtropics, Indonesia is no exception as one of the DHF endemic countries. The number of DHF events in 2019 increased sharply compared to the previous year (53,075 DHF cases in 2018, 68,407 cases in 2017, and 204,171 cases in 2016). In 2019 there were 16,692 cases and 169 of them were declared dead and the most cases occurred in East Java, Central Java, NTT, and Kupang.

East Nusa Tenggara (NTT) is one of the provinces with the third highest number of DHF cases in Indonesia in 2019 so this has become a serious health problem. Cases spread in almost all districts / cities. Data of dengue fever in NTT at the beginning of 2019 were 2,291 people, among them 26 people died (Wismabrata, 2019). The increase in this case is closely related to the condition of the female Aedes sp. Breeding place as a vector. This condition is exacerbated by the community's lack of understanding of dengue fever and community participation in poor environmental sanitation that facilitates mosquito breeding (Sukowati, 2010).

Oesapa Village is also the village with the highest number of cases in Kupang City, where there were 53 dengue cases from January to April 2019 (Puskesmas Oesapa, 2019). Many efforts have been carried out from the Oesapa Health Center and the village administration for the prevention of DHF, but have not given optimal results. This is evidenced by the fact that there are still dengue cases to date, although the number of cases has decreased but there is still dengue transmission in the community. Transmission of dengue fever in the community is inseparable from the presence of Aedes sp mosquitoes as vectors. The results of the initial survey conducted in April 2019 showed that all RTs in Oesapa Urban Village still had a lower standard larvae rate (<95%) at only 16%. So that this area is very

potential for dengue disease transmission in the wider community. In addition, public knowledge about DHF and how to prevent it is still lacking, as well as the active participation of the community in the prevention and control of DHF is still low. In addition, the participation of cadres as jumantik was considered ineffective because the cadres also had their own busy activities so that the monitoring of larvae in every house was irregular. Therefore it is important to provide the correct education community about DHF and its prevention.

Research by Farasari and Azinar, 2018 shows that the knowledge, attitudes and practices of DHF PSN have increased after being given educational media compared to before being given educational media. Likewise, the study of Masturoh (2009) states that the level of knowledge influences the consistency of PSN behavior. Efforts to increase empowerment and community participation are still a priority strategy in the prevention and control of DHF. One of the causes of the failure of the prevention of dengue fever, allegedly due to the unsuccessful efforts to drive community participation in eradicating mosquito nests (PSN), especially the activities of draining, closing and burying and monitoring larval breeding sites (4 M). In general, the aim of PSN is to achieve a larval free rate (ABJ)> 95% which is expected to prevent or reduce dengue transmission. This larva free rate is an indicator of the success of PSN in the DHF prevention program which also illustrates the behavior and participation of the community in controlling DHF. In general, PSN is mostly done by housewives, but in reality this IRT group has not been empowered optimally as an independent larva monitor for each household. If this group has been mobilized to be active in PSN, it will have a big influence on achieving ABJ> 95% which in the end is expected to reduce dengue transmission. Therefore the Ministry of Health has launched the One Jumantik One Home Movement in the context of optimizing the cultivation of the 4M PSN Plus in the community (Sigiranus, 2020).

Oesapa Village is a village with a high rate of DHF transmission and also the larvae free rate obtained in the initial survey is only 16%, meaning that it is very far from the standard that is still tolerated by the Ministry of Health which is 95%. This becomes the Urgency of Research, moreover it is noted that this region is an area with a high risk category of dengue disease transmission. In addition, the dense residential conditions and also other environmental conditions that are very supportive as a breeding place for Aedes sp larvae, such as used cans, dispenser

discharges, rear refrigerator discharges, drums etc. as a potential place for breeding mosquitoes that are around residents' homes. Besides that, active participation from the community is very less related to the PSN activities launched by the government. The eradication activities carried out by the government so far have not succeeded in reducing the density of the Aedes sp.

The success in this program is inseparable from the confidence, self-confidence / Self-efficacy of the Housewife (IRT) to perform the task of monitoring larvae at home properly. Self-efficacy is very much needed in a person, by increasing the ability to do the tasks given to run optimally (Farasari, 2018). Self-efficacy is needed so that someone is able to work well and have high performance. Trust in one's abilities, confidence in the success that is always achieved makes someone work harder and always produces the best. Thus to support the program, researchers are interested in conducting research related to the Effectiveness of Empowerment of Housewives as larva monitors in the Efforts to Control Dengue Fever in Tarus Village, Kupang Regency. In this study, housewives focused on the chairperson of the Neighborhood Association. The choice of RT mothers was taken with the consideration that as a housewife and at the same time as the wife of the husband's assistant, the head of the Neighborhood Association, of course, was chosen based on the wishes and choices of the people of the region, so that they could be considered as role models who could give a good example. In addition, can accompany and motivate other mothers in the environment.

## Method

The research design used was the cross sectional study design. This research was conducted in Oesapa Village, Kelapa Lima Subdistrict, Kupang City, with the time of field data collection starting from August 2019 to October 2019. The population of the study was all of the 50 Rukun Tetangga mothers in Oesapa Village. Samples were taken using a total sampling technique meaning that the entire population used as a sample in this study were 54 people. All research data were analyzed descriptively and presented in tables, figures and narratives.

## Result

Oesapa Village is one of the villages located in the administrative area of Kelapa Lima District, Kupang City. The Oesapa District is located between, 36 South

Latitude and 07 East BT, with an area of 4.83 km. Oesapan Kelurahan is bordered on the North by Kupang Bay, South on: Maulafa Kelurahan, on the East: Lasiana Kelurahan, and West on Oesapa Kelurahan. The distance of Oesapa Village from the Capital District of Kelapa Lima is about 0.3 Km and the distance from the Capital City of Kupang is about 3.7 Km. Based on government administration, Oesapa Urban Village is divided into 17 RWs and 54 RTs. The total population of Oesapa Urban Village recorded in August 2019 was 9,674 households with a population of 30,995 people consisting of 14,792 men and 16,203 women (Kelurahan Oesapa, 2019).

**General Conditions of the Population in the Oesapa District**

a) Age

The condition of population based on age in Oesapa Village can be seen in the following table:

Table 1. Population distribution by age in Oesapa Village in 2019

| Age group | Toal population | | |
|---|---|---|---|
| | Male | Female | Total |
| 00-04 | 1.430 | 1.387 | 2.817 |
| 05-09 | 1.385 | 1.539 | 2.924 |
| 10-14 | 1.368 | 1.492 | 2.860 |
| 15-19 | 1.712 | 2.023 | 3.735 |
| 20-24 | 2.053 | 2.700 | 4.753 |
| 25-29 | 1.449 | 1.461 | 2.910 |
| 30-34 | 1.040 | 1.083 | 2.123 |
| 35-39 | 1.032 | 1.079 | 2.111 |
| 40-44 | 904 | 896 | 1.800 |
| 45-49 | 789 | 898 | 1.687 |
| 50-54 | 541 | 627 | 1.168 |
| 55-59 | 351 | 399 | 750 |
| 60-64 | 265 | 262 | 527 |
| 65-69 | 165 | 161 | 326 |
| 70-74 | 144 | 89 | 233 |
| 75+ | 164 | 107 | 271 |
| Jumlah | 14.792 | 16.203 | 30.995 |

Source: Oesapa Urban Village Monthly Report for August 2019

Table 1 shows that the population in Oesapa kelurahan was mostly the age group of 20-24 years with 4,753 people (15.3%) and the least was the 70-74 year age group of 233 people (0.75%).

b) Profession

The condition of the population based on the type of work in Kelurahan Oesapa can be seen in the following Table 2:

Table 2. Population distribution based on employment in Kelurahan Oesapa in 2019

| Profesi | Total population | | |
|---|---|---|---|
| | Male | Female | Total |
| PNS | 578 | 817 | 1.395 |
| TNI | 28 | - | 28 |
| POLRI | 88 | 12 | 100 |
| ANGGOTA DEWAN | 1 | - | 1 |
| PENGACARA | 6 | 6 | 12 |
| GURU | 175 | 170 | 345 |
| DOSEN | 87 | 87 | 174 |
| DOKTER | 19 | 6 | 25 |
| MANTRI/BIDAN | 30 | 27 | 57 |
| NELAYAN | 605 | 47 | 652 |
| PENGEMUDI | 734 | - | 734 |
| TUKANG | 847 | - | 847 |
| BURUH | 1.223 | 281 | 1.504 |
| PENGURUS RUMAH TANGGA | - | 4.081 | 4.081 |
| PENDETA | 27 | 26 | 53 |
| PASTOR | 15 | - | 15 |
| ULAMA | 10 | - | 10 |
| PEGAWAI SWASTA | 788 | 739 | 1.527 |
| WIRASWASTA | 1.194 | 1.486 | 2.680 |
| WARTAWAN | 14 | 10 | 24 |
| PENSIUNAN | 216 | 108 | 324 |
| MAHASISWA | 2.146 | 2.920 | 5.066 |
| PELAJAR | 2.915 | 2.831 | 5.746 |
| BELUM BEKERJA | 715 | 542 | 1.257 |
| TIDAK BEKERJA | 2.277 | 1.940 | 4.217 |
| APOTEKER | 5 | 7 | 12 |
| KARYAWAN HONORER | 36 | 52 | 88 |
| Total | 14.779 | 16.195 | 30.974 |

Source: Oesapa Urban Village Monthly Report for August 2019

Table 2 shows that based on the type of work the most work as students is 5,746 people (18.5%) and the least work as board members is 1 person (0,0032%).

c) Education

Population distribution based on education level in Oesapa Urban Village can be seen in the following Table 3

Table 3. Population distribution based on education level in Oesapa Village

| Education | Total population | | |
|---|---|---|---|
| | Male | Female | Total |
| Belum Sekolah | 1.415 | 1.581 | 2.996 |
| TK | 777 | 681 | 1.458 |
| SD | 2.924 | 2.928 | 5.852 |
| SLTP | 2.909 | 9.917 | 5.826 |
| SLTA | 3.837 | 4.040 | 7.877 |
| D1/D2 | 525 | 438 | 963 |
| D3 | 626 | 780 | 1.406 |
| S1 | 1.593 | 2.501 | 4.094 |
| S2 | 89 | 176 | 265 |
| S3 | 5 | 25 | 30 |
| Total | 14.700 | 16.067 | 30.767 |

Source: Oesapa Urban Village Monthly Report for August 2019

Table 3 shows that based on the level of education, the population of Oesapa kelurahan has the highest education level of high school education of 7,877 people (25.6%) and the least is the education level of S3 of 30 people (0.09%). And most of the population of Oesapa is Protestant Christian with 18,417 inhabitants (59.8%) and the least is with 6 Buddhists (0.19%).

Whereas specifically, the general characteristics of the respondents consisted of age, occupation and level of education ever obtained. The details are as follows:

Table 4. Distribution of Respondents by Age

| Age of Respondent | Frequenci | Presentase (%) |
|---|---|---|
| 20 – 29 years old | 2 | 3.70 |
| 30 – 49 years old | 25 | 46.3 |
| 50 – 60 years old | 22 | 40.74 |
| >60 years old | 5 | 9.26 |
| Total | 54 | 100 |

The above table shows that in terms of age group, the most respondents are 30-49 years old which is 46.3%, then followed by the 50-60 years age group which is as much as 40.74% and only a small portion is 3.70% aged 20-29 years.

Table 5. Distribution of Respondents by type of work

| Profesi | Frekuensi | Presentase (%) |
|---|---|---|
| IRT | 42 | 77.78 |
| Pensiunan | 3 | 5.56 |
| Guru | 2 | 3.70 |
| Swasta | 3 | 5.56 |

| Honorer | 4 | 7.41 |
|---|---|---|
| Total | 54 | 100 |

The table shows that the majority of respondents worked as IRTs, namely 77.78% and only a small portion, namely 3.70%, worked as teachers.

Table 6. Distribution of Respondents by education level

| Education | Frekuensi | Presentase (%) |
|---|---|---|
| SD | 9 | 16.67 |
| SMP | 7 | 12.96 |
| SMA | 27 | 50.00 |
| D1 | 1 | 1.85 |
| D3 | 3 | 5.56 |
| S1 | 7 | 12.96 |
| Total | 54 | 100 |

The table above shows that the majority of respondents who graduated from high school were 50%, followed by respondents who graduated from elementary school which was 16.67% and only a small portion namely 1.85% who had D1 education.

**Description of knowledge, attitudes and actions of housewives in efforts to prevent and control DHF vectors**

a. knowledge of respondents

Mother's knowledge of DHF is assessed by asking a number of questions related to DHF and its prevention which is packaged in the form of statements in the questionnaire. The results of the answers can be used as a benchmark in assessing the level of knowledge of respondents about DHF, as shown in the table as follows

Table 7. Distribution of Respondents' Knowledge about DHF and its prevention

| No | Knowledge of DHF | Right | | Wrong | |
|---|---|---|---|---|---|
| | | Σ | % | Σ | % |
| 1 | DHF is a dangerous disease and can cause death | 53 | 98.15 | 1 | 1.85 |
| 2 | Early symptoms of dengue fever, red spots on the skin, nosebleeds | 47 | 87.04 | 7 | 12.96 |
| 3 | If anyone is suspected of DHF, they must seek treatment at a health facility immediately | 41 | 75.93 | 3 | 5.56 |
| 4 | DHF is transmitted by Aedes aegypti mosquitoes | 45 | 83.33 | 9 | 16.67 |
| 5 | Characteristics of dengue-transmitted mosquitoes are black with white patches on the legs and feet | 28 | 51.85 | 26 | 48.15 |
| 6 | Aedes mosquitoes bite humans at night | 46 | 85.19 | 8 | 14.81 |

| | | | | | |
|---|---|---|---|---|---|
| 7 | Aedes mosquito breeding sites in clean water reservoirs | 14 | 25.93 | 40 | 74.07 |
| 8 | We need to prevent DHF with 3M. | 9 | 16.67 | 45 | 83.33 |
| 9 | By doing 3M, family members become protected from DHF. | 10 | 18.52 | 44 | 81.48 |
| 10 | Wearing mosquito nets can prevent mosquito bites. | 43 | 79.63 | 11 | 20.37 |
| 11 | We may be lazy to clean the water in the shelter. | 35 | 64.81 | 19 | 35.19 |
| 12 | We have to close the water reservoir meeting | 44 | 81.48 | 10 | 18.52 |
| 13 | We have to drain the water reservoir at least 1 week 1 time | 47 | 87.04 | 7 | 12.96 |
| 14 | How to drain water reservoirs by removing water without brushing the reservoir walls | 39 | 72.22 | 15 | 27.78 |
| 15 | Using fish in water reservoirs can kill mosquito larvae | 30 | 55.56 | 24 | 44.44 |
| 16 | Abate is used to kill adult mosquitoes | 23 | 42.59 | 31 | 57.41 |
| 17 | Used items that can hold water must be buried | 37 | 68.52 | 17 | 31.48 |
| 18 | Hanging clothes in the house as a hiding place for mosquitoes | 51 | 94.44 | 3 | 5.56 |

Based on table 7 it can be said that most of the respondents have good knowledge related to dengue fever and its prevention where respondents are able to answer almost all questions correctly. But there are still respondents who do not understand correctly about questions related to the characteristics of dengue vector and how to control it.

b. Attitude of Respondents

Mother's attitude related to the prevention of DHF was assessed by asking a number of questions in the questionnaire. The results of the answers can be used as benchmarks in assessing the attitudes of respondents about DHF. The details are as shown in table 8 as follows

Table 8. Distribution of Respondents' Attitudes in Preventing DHF

| No | Attitudes about DHF | Agree | | disagree | |
|---|---|---|---|---|---|
| | | Σ | % | Σ | % |
| 1 | I think that I can become a larva monitor. | 46 | 85.19 | 8 | 14.81 |
| 2 | Even though my job as a housewife is quite a lot, but I was able to divide my time. | 42 | 77.78 | 12 | 22.22 |
| 3 | One way to prevent DHF is to keep the water clean from larvae. | 52 | 96.30 | 2 | 3.70 |
| 4 | Checking larvae in clean water can be done after household chores. | 44 | 81.48 | 10 | 18.52 |
| 5 | I was able to be given the task of monitoring mosquito larvae in my own home. | 46 | 85.19 | 8 | 14.81 |

| No | Statement | n | % | n | % |
|---|---|---|---|---|---|
| 6 | Jumantik is an abbreviation of larva monitor | 34 | 62.96 | 20 | 37.03 |
| 7 | I have to check the water reservoirs and places that can be flooded with clean water whether there is a larva or not | 48 | 88.89 | 6 | 11.11 |
| 8 | For water that is difficult to drain, it does not need to be given larvicide powder like abate. | 12 | 22.22 | 42 | 77.78 |
| 9 | I don't have to check swimming pools and fishponds to be free of mosquito larvae. | 19 | 35.19 | 35 | 64.81 |
| 10 | I need to eradicate the presence of cloth / clothing hanging in the house. | 45 | 83.33 | 9 | 16.67 |
| 11 | I don't need to go to an empty / uninhabited house to check larva. | 21 | 38.89 | 33 | 61.11 |
| 12 | We can work as jumantik, after getting special training on jumantik. | 39 | 72.22 | 15 | 27.78 |
| 13 | I have to keep my house clean from the Aedes aegypti DBD mosquito larvae | 49 | 90.74 | 5 | 9.26 |
| 14 | I can do Monitoring once a week (usually in Friday) in the morning. | 40 | 74.07 | 14 | 25.93 |
| 15 | If a mosquito larvae is found in my house's water reservoir, then I must clean or drain it to be clean of larvae. | 44 | 81.48 | 10 | 18.52 |
| 16 | I can not afford to be given the task of monitoring mosquito larvae in my own home because of the many household chores | 35 | 64.81 | 19 | 35.19 |
| 17 | As a Jumantik, I am not obliged to make the notes and reports needed to be reported to the kelurahan and then from the kelurahan to be reported to the relevant agencies or vertically | 28 | 51.85 | 26 | 48.15 |
| 18 | Each family member can act as a jumantik for their respective families | 43 | 79.63 | 11 | 20.37 |

Based on table 8 illustrates that most respondents have a positive attitude related to dengue fever and its prevention where respondents were able to answer almost all questions correctly. But there are still respondents who do not understand correctly about questions related to the characteristics of dengue vector and how to control it.

 c. Actions / Behavior of Respondents
The study relates to the extent of maternal prevention measures against DHF carried out by asking a number of questions related to DHF which are packaged in the form of questionnaires. The results of the answers can be used as benchmarks in

determining preventive behavior carried out by respondents about DHF. The details are as shown in table 8 as follows

Table 9. Distribution of Respondents' Behavior in Preventing DHF

| No | Behavior of Respondents | Always | | sometimes | |
|---|---|---|---|---|---|
| | | Σ | % | Σ | % |
| 1 | Drain the tub at least 1 week 1 time? | 48 | 88.89 | 6 | 11.11 |
| 2 | Closing the water reservoir inside and outside the house? | 39 | 72.22 | 15 | 27.78 |
| 3 | Raising fish in a water reservoir that is not closed? | 13 | 24.07 | 41 | 75.93 |
| 4 | If a family member sleeps during the day using mosquito repellent / kulambu | 24 | 44.44 | 30 | 55.56 |
| 5 | Sprinkled abate in a water reservoir that is not closed? | 27 | 50.00 | 27 | 50.00 |
| 6 | Bury or bend used items that can hold water | 31 | 57.41 | 23 | 42.59 |
| 7 | Mothers and other family members have a habit of hanging clothes after wearing? | 16 | 29.63 | 38 | 70.37 |
| 8 | Clean other water reservoirs such as flower vases, dispensers, refrigerator dumps, etc.? | 29 | 53.70 | 25 | 46.30 |
| 9 | Use drugs that can prevent mosquito bites like mosquito repellent lotions and mosquito coils | 19 | 35.19 | 35 | 64.81 |

Table 9 illustrates that in general respondents have good behaviors that support to prevent the transmission of DHF, but there are still residents who behave in a less supportive manner, for example not sprinkling abate powder into an uncovered water reservoir (50.0%), rarely use kulambu during naps (50%), rarely clean non-landfill water reservoirs such as flower vases, dispensers, refrigerator dumps (46.30%), do not bury or bend used cans (42.59%), hang clothes or pants behind the door (29.63%), as well as other unsupportive behavior.

**Discussion**

To obtain good data in this study regarding the KAP of the community, a survey was conducted to look at the dynamics of dengue transmission in the community so that the interventions carried out were adjusted to the real conditions in the place. Direct observations were made to identify the KAP of the community in Oesapa Village. Activities related to the prevention of dengue fever such as the empowerment of independent Jumantik for existing families have never been done. The activities carried out during the Extraordinary Events (KLB) in 2019 were limited to surveys conducted by puskesmas, abate distribution and fogging, but efforts to empower the community to eradicate mosquito nests have not been carried out. The behavior of the community in preventing DHF is still lacking, as indicated by the large number of residents' homes with ABJ 40%. Circumstances

around the homes of residents also there are still a lot of rubbish that is handed over in places such as used cans, used car tires that have the potential to become a breeding ground for Aedes sp.

Generally the level of respondents' knowledge about DHF and its vector is included in both categories. Likewise with attitude, the average respondent has a positive attitude towards DHF and its prevention. When seen from the characteristics of respondents, most do have an adult age that is between 30-49 years. From the psychological aspect, the way of thinking is also determined by maturity. This is different for everyone. There are those that take place slowly but surely, but there are those who transition so quickly due to the demands of the situation. In Indonesian law, an adult is legally different. Many consider the age of 17 to indicate maturity. However, brain scientists discovered that adulthood only began in their 30s (Maharani, 2019). Also supported by adequate education is high school. Although only as housewives, but the respondents always broaden their horizons by seeing, reading and hearing from the existing mass media. This is in line with the results of Junias (2016) which states that knowledge is very influential on the behavior of BABS and Miryanti (2016) and Masturoh (2009) in eradicating DHF.

But this situation is not in line with behavior. Even though people have good knowledge and a positive attitude does not guarantee that their behavior will support what they know. This is due to the busy schedule of each RT mother so that PSN is not routinely carried out even though they know that PSN is important to prevent DHF. The average respondent believes that they clean water reservoirs routinely at least once a week. And even then just drain the tub (remove water and clean the dirt from the tub without brushing the walls of the shelter). This causes mosquito larvae in the tub even though it just drained 2 days before. The correct technique for draining the tub is to remove the water from the holding container by brushing the walls of the container so that no mosquito eggs are attached to the walls of the container. In addition, for the use of abate, the community still uses it by inserting an abate (according to the package distributed by the official) regardless of the size of the container. The result is an impact on the change in taste and smell of clean water. Sometimes on the contrary, plastic abate wrapper is only perforated with a needle so that the drug comes out only slightly and becomes ineffective.

People in Oesapa must be given the right knowledge about how to apply the correct abate and how to do the right PSN.

Counseling and PSN practices conducted are expected to be able to add and update the insight of RT mothers. In addition, motivational reinforcement is given through presenting positive and negative impacts when eradicating PSN. Thus self-efficacy will begin to form. Self-efficacy is one part of the social cognitive theory by Albert Bandura in the 1970s to 1980s, which is based on the proposition that both social processes and cognitive processes are central to understanding human motivation, emotions and actions / behavior, which are generally understood as a process of learning by observing (obvervational learning). Bandura (2012) concluded that "Self-efficacy is the most important precondition for behavior change".

Bandura in Junias (2016) high and low someone's self-efficacy in each task varies greatly. Matters that affect self-efficacy include gender, age, level of education and experience. Counseling accompanied by direct practice by RT mothers is expected to increase knowledge, insight and experience in strengthening the implementation of PSN in their respective homes. It was even conveyed so that the sharing of knowledge that occurred did not stop just then. Can develop if it continues to be carried out and shared also with other housewives in their respective RT neighborhoods. This statement received positive responses from respondents. They even hope that the research team can help them as a resource when they continue the activity.

Furthermore Cherry (2015) in Junias (2016) explains that individual knowledge is influenced by several indicators such as thought, knowing, remembering, assessing and solving a problem. This is the basis for the formation of a confidence in the form of self-efficacy, which in turn forms a motivation to behave and behave. Observation explains this. Existing knowledge has shaped the behavior of RT mothers who are categorized as good by already carrying out activities to eradicate mosquito nests and their breeding, only not yet continuous. By strengthening confidence, it will form a confidence that they are able to make efforts to eradicate mosquito nests and their protection, especially for the good and health of their own families.

## Conclusion

The conclusion of this research is the knowledge of housewives in the efforts to prevent and control DHF vectors has been classified as good category, but there are still respondents who still do not understand correctly related to DHF and its prevention; Most housewives have a positive attitude in the prevention and control of DHF vectors; and Actions / behaviors of housewives in the efforts to prevent and control DHF vectors have been classified as good categories, but there are still respondents who have a non-supportive attitude in efforts to prevent DHF. It is expected that the community can actively participate and continue to make efforts to control the vector of DHF, especially the role of housewives as agents of change in the family.

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