Relationship of Knowledge, Attitudes and Social Status of Family Heads Against Dengue Prevention Measures in the Oesapa Public Health Center in 2020

Malfret Njaka Mbani[1], Ribka Limbu[2], Soleman Landi[3]

[1,2,3]Faculty of Public Health, Nusa Cendana University

e-mail: *[1]malfretwindi1234@gmail.com, [2]limburibka10@gmail.com, [3]landi_eman@yahoo.com

Abstract. Dengue Hemorrhagic Fever (DHF) is an infectious disease caused by the dengue virus and is transmitted through the bite of the Aedes aegypti mosquito. The factors that cause a person to get DHF are environmental factors, knowledge, attitudes, and social status. This study aims to analyze the relationship between knowledge, attitudes, and social status of the head of the family on the prevention of dengue fever. The type of research used is quantitative research with a cross-sectional approach. The number of samples in this study was 100 respondents. The independent variables in this study are knowledge, attitudes, education, employment, and income, while the dependent variable is the prevention of dengue fever. The type of data analysis used is chi-square. The results showed that there was a relationship between the knowledge of the head of the family and the prevention of DHF (p=0.002), there was a relationship between the attitude of the head of the family and the prevention of DHF (p=0.006), there was a relationship between the education of the head of the family and the prevention of DHF (p=0.003), there is a relationship between the income of the head of the family with dengue prevention measures (p= 0.007) and there is a relationship between the work of the head of the family with dengue prevention measures (p = 0.006).

Keywords: knowledge, attitude, social status, action, head of the family

Abstrak. DBD adalah penyakit infeksi yang disebabkan oleh virus Dengue dan ditularkan melalui gigitan nyamuk Aedes aegypti. Faktor-fakto yang menyebabkan seseorang terkena penyakit DBD yaitu faktor lingkungan, pengetahuan, sikap dan status sosial. Penelitian ini bertujuan untuk menganalisis hubungan antara pengetahuan, sikap dan status sosial kepala keluarga terhadap tindakan pencegahan penyakit DBD. Jenis penelitian yang digunakan yaitu penelitian kuantitatif dengan pendekatan cross sectional. Jumlah sampel dalam penelitian ini adalah 100 responden. Variabel bebas dalam penelitian ini yaitu pengetahuan, sikap, pendidikan, pekerjaan dan pendapatan sedangkan variabel terikatnya yaitu tindakan pencegahan DBD. Jenis analisis data yang digunakan yaitu chi square. Hasil penelitian menunjukan bahwa ada hubungan antara pengetahuan kepala keluarga dengan tindakan pencegahan DBD

(p=0,002), ada hubungan antara sikap kepala keluarga dengan tindakan pencegahan DBD (p=0,006), ada hubungan antara pendidikan kepala keluarga dengan tindakan pencegahan DBD (p=0,003), ada hubungan antara pendapatan kepala keluarga dengan tindakan pencegahan DBD (p=0,007) dan ada hubungan antara pekerjaan kepala keluarga dengan tindakan pencegahan DBD (p=0,006).

Kata kunci: *pengetahuan, sikap, status sosial, tindakan, kepala keluarga*

Introduction

Dengue hemorrhagic fever is a disease caused by the dengue virus and is characterized by four main clinical symptoms, namely hepatomegaly, high fever, bleeding manifestations, and signs of circulatory failure to shock as a result of plasma leakage which can cause death (Sucipto, 2011)

DHF cases in Indonesia in 2019 were recorded at 138,127 cases and this number increased compared to 2018 which totaled 65,602 cases. Deaths due to dengue disease in 2019 increased compared to 2018, from 467 deaths to 919 deaths. The incidence rate for dengue fever in 2019 is 51.53 per 100,000 population. This figure shows an increase compared to the previous two years, namely in 2017 and 2018 with the DBD Incidence Rate of 26.1 and 24.75 per 100,000 population (Kemenkes RI, 2019)

Based on the health profile of East Nusa Tenggara in 2018, the number of dengue cases was 1,603 cases (29.8 per 100,000 population). This number increased compared to the number of cases in 2017 of 542 cases (10.3 per 100,000 population). Of the 22 districts in East Nusa Tenggara, the highest number of DHF cases was in the West Manggarai district with 539 cases, followed by Kupang City with 238 cases and Sikka with 156 cases. The districts with the lowest number of DHF cases were Timor

Tengah Utara with 3 cases and Alor with 4 cases (Dinkes NTT, 2018)

Kupang City is a dengue-endemic area because every year there are always dengue cases. In 2018, there were 238 dengue cases. Of the 11 health centers in Kupang City, the highest number of dengue cases was Oesapa Public Health Center with 55 cases, Oebobo and Oepoi Public Health Center with 33 cases. Public Health Center with the lowest DHF cases were in Kupang City Public Health Center with 1 case, Naioni Public Health Center with 2 cases, and Manutapen Public Health Center with 3 cases (Dinkes Kota Kupang, 2018)

The Oesapa Public Health Center is a Public Health Center located in the Kelapa Lima sub-district, Oesapa Village. Oesapa Public Health Center is one of the health centers with the highest number of DHF cases in Kupang City. In 2018 there were 55 cases of dengue fever and increased in 2019 to 141 cases. In 2020, there was an increase of 160 cases (Profil Puskesmas Oesapa, 2019).

Dengue fever is a disease, one of which is influenced by the environment, such as temperature, rainfall, climate, and also there are factors of knowledge, attitudes, and actions. Dengue fever can be prevented when someone has a good level of knowledge and also has a good attitude and behavior (Wirakusuma, 2016)

The function of knowledge as a form of DHF prevention in society can be assessed from a simpler environment, namely the family, especially the head of the family. The definition of the head of the family according to the large Indonesian dictionary is a person who is responsible for a family. The family culture in Indonesia, especially in East Nusa Tenggara, is still influenced by a paternalistic culture in which the leadership of a community group or family is still entrusted with the most dominant figure or party. The head of the family is seen as having the responsibility to protect his family members so it is important for him to have sufficient knowledge about the prevention of dengue to prevent his family members from contracting dengue (Sarwono, 1993)

Apart from the factors of knowledge, attitudes, and actions, several factors influence a person in taking preventive measures such as a person's social status. Social

status is defined as a person's occupation, income, and education. Knowledge, attitudes, practices, and social status are interrelated so that when one thing is not good, even though the other is good, it has no meaning. Therefore, it is necessary to know the extent of the knowledge, attitudes, and behavior of the community, especially in the working area of the Oesapa Public Health Center regarding the prevention of DHF so that it can be found out what the community is lacking about DHF prevention whether their knowledge, attitudes, practices or all three. This will be useful so that policyholders or programs in the field of disease prevention, especially dengue can carry out appropriate community interventions in the prevention and eradication dengue.

Method

This research is a quantitative study with a cross-sectional approach. The research location is the work area of the Oesapa Community Health Center. This research was conducted in February-March 2021. The population in this study was all the number of family heads in the work area of the Oesapa Community Health Center, amounting to 16,952 families. The sampling method in this study was using random sampling with a sample size of 100. The data processing techniques in this study were editing, coding, entry, cleaning, and saving. The data collection method is in the form of a questionnaire. The data collection method is divided into 2, namely primary and secondary data. Data analysis used univariate and bivariate analysis. The statistical test used is chi-square using $\alpha = 0.05$ and a confidence interval of 95% (Notoatmodjo, 2013)

Results

Table 1.

Distribution of Respondents by Age of Head of Family

No.	Age (Years)	Frequency (f)	%
1.	26-35	38	38,0
2.	36-45	27	27,0
3.	46-55	21	21,0
4.	56-65	14	14,0
Total		**100**	**100**

The results showed that based on the age characteristics of the head of the family the most were 38 (38.0%), namely the 26-35 years age group, while the least 14 (14.0%) was the 56-65 age group.

Table 2.

Distribution of Respondents by Occupation of Head of Family

No.	Profession	Frequency (f)	%
1.	Temporary Worker	2	2,0
2.	Housewife	12	12,0
3.	Farmer	3	3,0
4.	Fisherman	10	10,0
5.	Priest	2	2,0
6.	Private employee	33	33,0
7.	Government Employees	6	6,0
8	Retired	32	32,0
Total		**100**	**100**

The results of the study were based on the frequency of work of family heads, at most 33 (33.0%) were those who worked as private workers, while the least 2 (2.0%) were those who worked as priests and Temporary Worker.

Table 3.

Distribution of Respondents by Education of Head of Family

No.	Education	Frequency (f)	%
1.	Does not attend school	20	20,0
2.	Elementary School	28	28,0
3.	Junior High School	8	8,0
4.	Senior High School	30	30,0
5.	University	14	14,0
Total		**100**	**100**

The results of the study were based on the frequency of education level of the head of the household which was at most 30 (30.0%) high school, while the least 8 (8.0%) was S.

Table 4.
Distribution of Respondents by Income of Head of Family

No	Income (IDR)	Frequency (f)	%
1	500thousand-1 million	22	22.0
2	1.1-1.5 million	15	15.0
3	1.6-1.950 million	9	9.0
4	2-2.5 million	31	31.0
5	2.6-3 million	12	12.0
6	>3.1 million	11	11.0
Total		100	100

The results of the study based on the frequency of the income of the head of the household were at most 31 (31.0%) with a total income of 2 million - 2.5 million, while the lowest was 9 (9.0%) with a total income of 1.6 million - 1.950 million.

Table 5.
Distribution of Respondents According to Knowledge of Family Heads

No	Knowledge	Frequency (f)	%
1	Good	63	63.0
2	Lack	37	37.0
	Total	100	100

The results of the study based on the frequency of the level of knowledge of the head of the household, which was at most 63 (63.0%) were the level of good knowledge, while the lowest was the level of knowledge of the least 37 (37.0%) was the level of knowledge.

Table 6.

Distribution of Respondents according to the Attitude of the Head of the Family

No	Attitude	Frequency (f)	%
1	Positive	53	53.0
2	Negative	47	47.0
Total		100	100

The results of the study based on the frequency of attitudes of family heads with the most number of 53 (53.0%) heads of families with a positive preventive attitude, while at least 47 (47.0%) were heads of families with negative attitudes of prevention.

Table 7.

Distribution of Respondents by Actions of Head of Family

No	Action	Frequency (f)	%
1	Positive	55	55.0
2	Negative	45	45.0
Total		100	100

The results of the study were based on the frequency of action by the head of the household with the most number of 55 (55.0%) and the most frequent head of the household with positive preventive action, while the smallest 45 (45.0%) were the head of the family with negative preventive action.

Discussion

Table 1.

The relationship between the education of the head of the family and the prevention measures for DHF

Education of the Head of the Family	Precaution				N	%	p-value
	Positive		Negative				
	N	%	n	%			
High	36	28.6	16	23.4	52	52.0	
Low	19	26.4	29	21.6	48	48.0	0.003
Total	**55**	**55.0**	**45**	**45.0**	**100**	**100**	

The table above shows that based on the bivariate analysis, it was found that there was a relationship between education and DHF prevention with a p-value of 0.003. Most of the heads of families in this study have a high level of education, it can be concluded that the higher the level of education of a person, the better the preventive measures for a disease, conversely the lower the level of education of a person, the lower the preventive measures against the disease. This is in line with Grossman's theory in Grace et al, that differences in education levels cause differences in basic health knowledge. The higher the education level of a person, the easier it will be to accept and develop the knowledge they have so that it will increase productivity which in turn will improve the health and welfare of the family.

Table 2.

The relationship between the occupation of the head of the family and the prevention measures for DHF

Work of the Head of the Family	Precaution				N	%	p-value
	Positive		Negative				
	N	%	n	%			
Does not work	31	24.2	13	19.8	44	44.0	
Work	24	30.8	32	25.2	56	56.0	0.006
Total	**55**	**55.0**	**45**	**45.0**	**100**	**100**	

The table above shows that based on the bivariate analysis, it was found that there was a relationship between work and dengue prevention measures with a p-

value of 0.006. From the results above, it can be seen that the heads of families who do not work take more positive DHF prevention actions than those who work. Research conducted by Harmani and Harmal (in Iroma et al, 2016) states that someone who does not work has more time at home so that they have more opportunities to carry out household cleaning activities which indirectly aims to prevent dengue.

Table 3.

Relationship between household head income and DHF prevention measures

Income of the Head of the Family	Precaution				N	%	p-value
	Positive		Negative				
	n	%	n	%			
Low	32	25.3	14	20.7	46	46.0	
High	23	29.7	31	24.3	54	54.0	0.007
Total	**55**	**55.0**	**45.**	**45.0**	**100**	**100**	

The table above shows that based on the bivariate analysis, it was found that there was a relationship between work and dengue prevention measures with a p-value of 0.007. From the results above, it can be seen that some respondents have a high level of income, but have low preventive measures. It can be concluded that someone who has a high income does not necessarily have good preventive behavior, on the other hand, someone who has a low income can take action to prevent dengue disease.

Table 4.

The relationship between the knowledge of the head of the family and the prevention measures for DHF

Family Heads Knowledge Level	Precaution				N	%	p-value
	Positive		Negative				
	n	%	n	%			
Good	42	34,6	21	28,4	63	63,0	
Not good	13	20,4	24	16,6	37	37,0	0,002
Total	**55**	**55,0**	**45**	**45,0**	**100**	**100**	

The table above shows that based on the bivariate analysis, it was found that there was a relationship between work and dengue prevention measures with a p-

value of 0.002. Most of the respondents in this study have a good level of knowledge and also have good preventive measures. This is because the education level of the respondents is on average at the high school level. Generally, the lower the level of education will be able to hinder the development of a person's attitude in receiving information and new values that they get so that it can affect a person's behavior in preventing dengue (Ginandra in Harmani & Hamal, 2013). The level of good knowledge by the head of the family in the work area of the Oesapa Health Center in this study is influenced by the level of education and also the access to information obtained by the respondents, be it from mass media, electronic media, from health workers or friends.

Table 5.

The relationship between the attitude of the head of the family and the prevention measures of DHF

| An attitude of the Head of the Family | Precaution | | | | N | % | *p-value* |
| | Positive | | Negative | | | | |
	n	%	n	%			
Positive	36	29,2	17	23,8	53	63,0	
Negative	19	25,8	28	21,2	47	37,0	0,006
Total	**55**	**55,0**	**45**	**45,0**	**100**	**100**	

The table above shows that based on the bivariate analysis, it was found that there was a relationship between work and dengue prevention measures with a p-value of 0.006. Most of the household heads in this study had positive attitudes and also had positive precautions. The positive attitude of the head of the family is that they strongly disagree if the prevention of dengue is the responsibility of the government alone. Another positive attitude that the head of the family has is that they agree at least 1 week to drain the bathtub, close the water reservoir and recycle used items that have the potential to become a breeding ground for mosquitoes. A good attitude is to reach the stage of accepting, responding, appreciating, and even being responsible for taking action to prevent and control dengue (Notoatmodjo, 2010). Attitude also says a feeling of support (positive) or feelings of not supporting

(negative) on a certain object (Notoatmodjo, 2010).

Conclusion

There is a relationship between the knowledge of the head of the family and the prevention measures of DHF in the Oesapa Health Center working area in 2020. There is a relationship between the attitudes of the head of the family towards the prevention of DHF in the Oesapa Health Center working area in 2020. There is a relationship between the income of the head of the family and the prevention measures for DHF in the Oesapa Health Center working area in 2020. There is a relationship between the education of the head of the family and the prevention measures of DHF in the Oesapa Health Center working area in 2020. There is a relationship between the work of the head of the family and the prevention measures of DHF in the Oesapa Health Center working area in 2020.

Suggestion

It is hoped that the head of the family will motivate himself to realize his knowledge about DHF and the motivation that exists within the head of the family may continue to be maintained to have a positive impact on other family members, so that they can take preventive measures independently, regularly and optimally to reduce the risk of disease dengue.

References

Dinkes Kota Kupang. (2018). *Profil Kesehatan Kota Kupang Tahun 2018*. Dinas Kesehatan Kota Kupang. Diunduh dari https://dinkes-kotakupang.web.id/bank-data/category/1-profil-   kesehatan.html?download=36:profil-kesehatan-tahun-2018 tanggal 13 Agustus 2020

Dinkes NTT. (2018). *Profil Kesehatan NTT Tahun 2018*. Dinas Kesehatan NTT.

Grace, D. (2014). *Faktor-Faktor Yang Berhubungan Dengan Tindakan Pencegahan Demam Berdarah Dengue (DBD) Di Desa Wineru Kecamatan Likupang Timur Kabupaten Minahasa Utara*. Unpublished Manuscript, Fakultas Kesehatan Masyarakat,

Universitas Sam Ratulangi, Manado. Diunduh dari *https://fkm.unsrat.ac.id/wp-content/uploads/2015/02/Jurnal- Grace-Walewangko-2-1.pdf* tanggal 25 agustus 2020

Harmani, N., Hamal, D.K., 2013. *Hubungan antara Karakteristik Ibu dengan Perilaku Pencegahan Penyakit DBD di Kecamatan Karang Tengah Kabupaten Cianjur Provinsi Jawa Barat Tahun 2013.* Fakultas Ilmu-ilmu Kesehatan, Universitas Muhammadiyah Prof. Dr. HAMKA, Jakarta. Diunduh dari http://lemlit.uhamka.ac.id/files/dbd.pdf tanggal *25 Agustus* 2020

Iroma, dkk. (2016). Analisis Hubungan Karakteristik Kepala Keluarga Dengan Perilaku Pencegahan Demam Berdarah Di Pakijangan Brebes. *Jurnal Ilmiah Rekam Medis dan Informatika Kesehatan*, 6(1), ISSN 2086 - 2628. Diunduh dari https://www.apikescm.ac.id/ejurnalinfokes/index.php/ infokes/article/viewFile/97/95 tanggal 25 agustus

Kemenkes RI. (2019). Profil Kesehatan Indonesia Tahun 2019. *Kementrian Kesehatan RI*. Diunduh dari https://pusdatin.kemkes.go.id/resources/download/pusdatin/profil-kesehatan- indonesia/Profil-Kesehatan-indonesia-2019.pdf tanggal 13 Agustus 2020

Notoatmodjo. (2013). *Metodologi Penelitian Kesehatan*. Rineka Cipta: Jakarta Profil Puskesmas Oesapa. (2019). *Profil Kesehatan Puskesmas Oesapa Tahun 2019*.

Sarwono, S. (1993). *Sosiologi Kesehatan*. Gadjah Mada University Press: Yogyakarta Sucipto, C. (2011). *Vektor Penyakit Tropis*. Gosyen: Yogyakarta

Wirakusuma. (2016). *Gambaran Tingkat Pengetahuan, Sikap, Dan Praktik Tentang Pencegahan Demam Berdarah Dengue Di Wilayah Kerja Puskesmas Bebandem*. Bagian Ilmu Kedokteran Komunitas Dan Ilmu Kedokteran Pencegahan, Fakultas Kedokteran, Universitas Udayana, Denpasar. Diunduh dari ttps://simdos.unud.ac.id/uploads/file_penelitian_dir/8b5249ab3b628b70679b5960e4f 40e72. pdf tanggal 26 Agustus 2020