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THE RELATIONSHIP OF KNOWLEDGE AND FAMILY HEAD'S BEHAVIOR IN ERADICATION OF MOSQUITO NESTS (PSN) IN DENGUE HEMORRHAGIC FEVER ENDEMIC AREAS MUARA DUA HEALTH CENTER, LHOKSEUMAWE CITY

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ABSTRACT

Dengue Hemorrhagic Fever (DHF) or Dengue Hemorrhagic Fever (DHF) is currently a public health problem in Indonesia, prevention efforts that can be done are to break the chain of transmission of DHF, one of which is through the Eradication of Mosquito Nests (PSN). DHF by all levels of society This study aims to determine the relationship between knowledge and behavior of the head of the family in Eradicating Mosquito Nests (PSN) in 3 DHF Endemic Areas at the Muara Dua Health Center, Lhokseumawe City.The type of research used is analytic with a cross-sectional design. The population and sample of this study are all heads of families who live in3 Dengue Endemic Areas Muara Dua Public Health Center, Lhokseumawe City with a total sample of 98 house holds with simple random sampling technique.The results of the research on the characteristics of respondents based on the age of the majority were 36-45 years 53 respondents, the sex of the majority was male 96 respondents, the education of the majority was high school 51 respondents, the majority of jobs were non ASN 81 respondents. The highest KK knowledge in the sufficient category is 47 respondents, the highest KK behavior is in the good category, 69 respondents. Statistical test results show there is a relationship between knowledge and the behavior of the head of the family in 3 DHF Endemic Areas at the Muara Dua Community Health Center, Lhokseumawe City where a ρ value of 0.000 (below the alpha (α) value of 0.05) is obtained so that Ha is accepted. Based on the results of this study, it is suggested to the health center to be able to improve health education to the community, especially heads of families about PSN.

Keywords: Knowledge,Behavior, Family Head,Eradication of Mosquito Nests

Introduction

Dengue Hemorrhagic Fever (DHF) is currently a public health problem in Indonesia, where the number of sufferers tends to increase and its spread is increasingly widespread. Dengue fever is caused by the Dengue virus and is transmitted through the bites of Aedes aegypti and Aedes albopictus mosquitoes. The incidence of DHF is increasing every year with different clinical manifestations ranging from mild to severe (Widoyono, 2013).

The increase in the incidence and spread of DHF is thought to be closely related to the very high vector density and is supported by increased population mobility due to increased transportation facilities within the city and outside the city. All areas of Indonesia are at risk of contracting dengue fever except for areas with an altitude of more than 1000 meters above sea level (Ministry of Health RI, 2015).

The cause of DHF is the Dengue virus (DEN-1, DEN-2, DEN-3, DEN4) which is carried by mosquito vectors of the genus Aedes (especially A.Aegpty and A.Albopticus). These mosquitoes breed in clean water, for example in bathtubs, plant pots and used cans. In suppressing the incidence of DHF, prevention is the most appropriate way, namely through the Eradication of Mosquito Nests (PSN) through the 3M Plus movement. The 3M plus movement includes draining, closing and burying plus preventing mosquito bites, for example by using mosquito repellent lotions, using larvicides and keeping fish that eat

mosquito larvae. It is hoped that through this 3M Plus movement, the Larvae-Free Number (ABJ) will increase every year (Jumadi, 2015).

Before 1970 only 9 countries experienced dengue outbreaks, but now dengue is an endemic disease in more than 100 countries, including Africa, America, the East Mediterranean, Southeast Asia and the West Pacific. America, Southeast Asia and the West Pacific have the highest number of dengue cases. The number of cases in America, Southeast Asia and the Western Pacific has exceeded 1.4 million cases in 2014 and more than 2.3 million cases in 2016. In 2018 it is estimated that there will be 2.35 million cases in America. Where 37,687 cases were severe DHF (WHO, 2016).

DHF cases in Indonesia have become a health problem in recent years. Dengue Hemorrhagic Fever was first discovered in DKI Jakarta and Surabaya in 1968 with a total of 58 cases. Until 2017 there was an increase in the number of provinces and cities that were endemic to DHF, from two provinces and two cities to 32 provinces and 382 cities with a total of 159,945 cases. Indonesia in 2016 recorded an Incidence Rate (AI) of 45.65 per 100,000 population or 112,511 cases, and in 2017 in January-April there was an AI of 5.17 per 100,000 population or 13,451 cases. Until 2017, Indonesia was still in the top ranking for the number of DHF cases in ASEAN, namely more than 150,000 cases (Ministry of Health RI, 2018).

Aceh Province Based on Health Profile data (2017), until now, DHF is a vector-borne disease that is a priority in infectious disease control programs, both in Indonesia and in the world. In the last 12 months, clinical DHF can be detected in almost all districts/cities in Aceh Province with a prevalence range of 0.0-4.5%. In DHF cases, Aceh Province contributed 2,416 cases in 2015 (IR 55.72) with 37 people dying (CFR 1.39), then in 2016 cases decreased to 1,521 cases (IR 32.16) which 21 people died. (CFR 1.24) but increased again in 2017 to 2,713 cases (IR 61.12), the number of patients who died was 17 cases (CFR 0.87) (Aceh Provincial Health Office Profile 2017).

In Lhokseumawe City in 2015 there were 23 cases then increased sharply in 2016 by 41 cases with an Incident Rate of 21.29/100,000 population and in 2017 it increased to 97 cases with an Incidence Rate of 64.9/100,000 population (Health Profile, 2017). Research conducted by Helper, et al (2016) regardingCommunity Knowledge and Behavior in Dengue Hemorrhagic Fever Prevention in West Java and West Kalimantan Provincesto 600 respondents in the four cities/regencies that have the highest endemicity, the results showed 92.8% of respondents had never heard of Dengue Hemorrhagic Fever, 77% of respondents had knowledge of Dengue Hemorrhagic Fever as an infectious disease, 81.5% of respondents had knowledge of how to transmission of Dengue Hemorrhagic Fever by mosquito bites and 63.7% of respondents took preventive measures through eradicating mosquito nests.

Iroma, et al (2016) who conducted an analysis of the relationship between the characteristics of the head of the family and the behavior of preventing dengue fever in Pakijangan Brebes stated that there was a relationship between the characteristics of the head of the family and the behavior of preventing DHF. Including the exposure of the head of the family to communication media, the type of work the head of the family does, and socioeconomic status.

The lack of correct information about the prevention of dengue disease to families and communities and accompanied by increasingly individualistic social life in society, makes it increasingly difficult for existing communities to work together to eradicate the mosquito. For this reason, families, especially heads of families, need to find information related to PSN to increase their knowledge so that it will influence family behavior in PSN.

Knowledge of family heads about PSN can also be obtained from health education provided by health workers so that families and communities can carry out eradication of mosquito nests in the 3M-Plus way against breeding grounds for DHF transmitting mosquitoes and physical, chemical and biological control efforts at home , public places, schools, offices and their environment.

Muara Dua District, Lhokseumawe City, which oversees 17 villages, with a population of 52,504 as of December 2018 and is one of the areas that has the potential to be infected with DHF, due to the many sources of breeding Aedes agepty mosquitoes around residents' homes such as used tires and cans and the like. and the high level of population mobility, the environment around the house which is close to the garden, the community is still seen littering, the participation of the community in the implementation of 3M Plus is not running well, there is still a lack of counseling about DHF. So that it can be illustrated that the behavior of the community, especially heads of families, pays little attention to environmental hygiene

and has not carried out prevention and eradication of mosquito breeding sites (PSN-DBD) by controlling the Aedes aegypti vector mosquito.

Based on the data the researchers obtained in the Working Area of the Muara Dua Health Center, Lhokseumawe City, from January to December 2018, there were 3 (three) villages which were DHF endemic areas, namely Panggoi Village, which was inhabited by 1,720 households, Meunasah Mesjid Village, which was inhabited by 2,083 households. and Paya Punteut Village, which is home to 847 households with 20 cases of DHF and 2 cases of death from January to December 2018.

The results of initial interviews with 10 family heads regarding their knowledge and behavior about DHF, 5 said that basically they already knew about dengue fever (DHF), and had listened to health education about DHF delivered by health workers, while 5 family heads said that they do not know how to effectively manage DHF through DHF mosquito nest eradication (PSN) activities because there is still a lack of information they get, both from health workers and other sources of information.

Based on the description of the background above and the phenomena that researchers found in the working area of the Muara Dua Health Center, Lhokseumawe City, the researchers are interested in conducting a study on DHF cases with the title "Relationship of Knowledge with the Behavior of Heads of Families in Eradicating Mosquito Nests (PSN) in DHF Endemic Areas at Puskesmas Muara Dua Lhokseumawe City in 2019".

Research Purposes

This study aims to determineRelationship between knowledge and behavior of the head of the family in eradicating mosquito nests (PSN) in DHF endemic areas at the Muara Dua Health Center, Lhokseumawe City.The specific objectives in this study are:

1. Knowing the knowledge of the head of the family about Eradicating Mosquito Nests (PSN) in Dengue Endemic Areas at the Muara Dua Health Center, Lhokseumawe City
2. Knowing the behavior of the head of the family in Eradicating Mosquito Nests (PSN) in the DHF Endemic Areas of the Muara Dua Health Center, Lhokseumawe City.
3. Knowing the relationship between knowledge and the behavior of the head of the family in Eradicating Mosquito Nests (PSN) in Dengue Endemic Areas at the Muara Dua Community Health Center, Lhokseumawe City.

Research Methodology

This type of research is analytic, namely to determine the relationship between the knowledge and behavior of the head of the family and the implementation of the Eradication of Mosquito Nests (PSN) in the DHF Endemic Areas of the Muara Dua Health Center, Lhokseumawe City. This study uses a cross-sectional study approach, where the independent variables and dependent variables are studied at the same time.

The population to be studied is allhead of familyinPanggoi Village as many as 4,650 Heads of Families (KK).Determination of the sample usingsimple random sampling technique, which totaled 98 heads of families (KK) as samples in this study.

Results And Discussion

Table 1.1
Frequency of Knowledge of the Head of the Family About Eradication of Mosquito Nests in the Territory Endemic to DHF at Muara Dua Health Center Lhokseumawe City

No	Knowledge of the Head of the Family	F	%
1	Well	33	33,7
2	Enough	47	48
3	Not enough	18	18,4
	Amount	**98**	**100**

Based on the table above, it is known that the highest knowledge of heads of families in the DHF Endemic Area of the Muara Dua Health Center, Lhokseumawe City, regarding PSN is in the sufficient category, namely 47 respondents or 48% and the lowest is in the less category, namely 18 respondents or 18.4%.

Table 1.2
Frequency of Behavior of Head of Family About Eradication of Mosquito Nests in the Territory Endemic to DHF at Muara Dua Health Center Lhokseumawe City

No	Behavior of the Head of the Family	F	%
1	Well	69	70,4
2	Not good	29	29,6
Amount		**98**	**100**

Based on the table above, it is known that the behavior of heads of families in the DBD Endemic Area of the Muara Dua Health Center, Lhokseumawe City, regarding PSN is in the good category, namely 69 respondents or 70.4% and the lowest is in the unfavorable category, namely 29 respondents or 29.6%

Table 1.3
ConnectionKnowledge with the behavior of the head of the family about Eradication of Mosquito Nests in the Territory Dengue Endemic Muara Dua Public Health Center Lhokseumawe City

Knowledge of the Head of the Family	Behavior of the Head of the Family				Q	*P* Value
	Well		Not good			
	f	%	f	%		
Well	31	93.9	2	6,1	33	0.000
Enough	32	68,1	15	31,9	47	
Not enough	6	33,3	12	66,7	18	
Total	69	70,4	29	29,6	98	

Based on the table abovecouldnoted that,of the 33 heads of families with good knowledge, the behavior of the heads of families about PSN tends to be in the good category, namely 31 respondents (93.9%), as well as 47 heads of families with sufficient knowledge, behavior regarding PSN also tends to be in the good category, namely 32 respondents (68.1%) compared to 18 heads of families with less knowledge where the behavior of the heads of families regarding PSN tends to be in the unfavorable category, namely 12 respondents (66.7%).

The statistical test results obtained a ρ value of 0.000, which means it is smaller than the alpha (α) value of 0.05, so it can be concluded that there is a significant relationship between knowledge and behavior of heads of families about PSN in the DHF Endemic Areas of the Muara Dua Health Center, Lhokseumawe City so that Ha is accepted and Ho rejected.

ConnectionKnowledge with the behavior of the head of the family aboutEradication of Mosquito Nests in the TerritoryEndemic to DHF at Muara Dua Health Center Lhokseumawe City

The results of cross-tabulation showed that of the 33 heads of families with good knowledge, the behavior of the heads of families about PSN tended to be in the good category, namely 31 respondents (93.9%), as well as 47 heads of families with sufficient knowledge, behavior about PSN also tended to be in the good category. good, namely 32 respondents (68.1%) compared to 18 heads of families with less knowledge where the behavior of the heads of families regarding PSN tends to be in the unfavorable category, namely 12 respondents (66.7%). The statistical test results obtained a ρ value of 0.000, which

means it is smaller than the alpha (α) value of 0.05, so it can be concluded that there is a significant relationship between knowledge and behavior of heads of families about PSN in the DHF Endemic Areas of the Muara Dua Health Center, Lhokseumawe City so that Ha is accepted and Ho rejected.

Efforts to prevent DHF have been carried out by the Muara Dua District Health Center, Lhokseumawe City, both through the media in the form of leaflets, brochures, banners and direct health education and have been running optimally which can be seen from several factors, such as increasing community participation, especially heads of families in PSN. According to the researcher's assumption, this is because the community is aware that their village is a DHF endemic area which occurs almost every year and the active health center staff and local health cadres empower the community about PSN behavior through health counseling, mutual cooperation and cross-sector collaboration involving all other related parties. such as community leaders, religious leaders, community organizations and NGOs.

Krianto's research (2013) obtained results similar to this study, that knowledge and attitudes influence PSN behavior with p <0.001, and most respondents support PSN behavior on the grounds that they are afraid that one day a family member will be affected by DHF so they will try to eradicate it. mosquito nest. In the study it was stated that 70% of respondents stated that fogging was a quicker and more effective way to prevent dengue.

These results are in accordance with this study, where more than half of the respondents stated this. Ekawati's research (2012) obtained similar results that there is a relationship between knowledge and PSN behavior, the significance value is p = 0.017 with α (0.05). This might happen in accordance with the theory of Lawrence Green (2008), that knowledge and attitudes are related to individual or group motivation in doing something. So the better the knowledge and positive attitude or one's view of something, the better the action taken on it.

Research that was conducted by Robby (2017) concerning the relationship of knowledge, attitudes and behavior of the community with the incidence of dengue fever in Medan Sunggal District, this research was conducted aiming to determine the extent to which the respondents' behavior regarding the efforts made to prevent DHF incidents so as to reduce the number of dengue incidents. Analysis of behavior was carried out by asking questions related to the habit of burying used goods, using mosquito coils, giving abate, draining the bath, and hanging clothes. Based on bivariate analysis with the Kolmogorov-Smirnov Z analysis test, a p-value of 0.013 (p <0.05) was obtained, which means that there is a significant relationship between the level of community behavior and the incidence of DHF in Medan Sunggal District. This is in line with research by Purnama et al. that there is a relationship between behavior and the incidence of DHF in South Denpasar District by obtaining a p-value of 0.000 (Purnama et al., 2013). A study in Denpasar stated that there was a relationship between behavior and the incidence of DHF (Jata et al., 2016). Cleaning the environment and routinely exterminating mosquito nests will effectively reduce mosquito breeding grounds, thereby reducing the incidence of DHF in the environment (Purnama et al., 2013).

Psychology views human behavior as a reaction that can be simple or complex. In humans in particular and in various animal species in general there are indeed forms of instinctive behavior (species-specific behavior) which are based on nature to maintain life. One of the most interesting characteristics of human behavioral reactions is their differential nature. That is, one stimulus can cause more than one different response and several different stimuli can cause the same response.

The environment is one of the factors involved in the transmission of DHF. The breeding of Aedes mosquitoes is known to lay their eggs in standing water on the remains of used cans, water reservoirs, bathtubs, used tires and so on (Satari, 2013). According to Sari (2012), the main way to prevent DHF is by eradicating mosquito nests (PSN). This method is the most effective, efficient and economical in eradicating the DHF transmission vector.

The formation of a new behavior in a person starts when a person knows about a stimulus in the form of material or an object that gives rise to new knowledge in that person. One's knowledge of DHF, how it spreads, and prevention of DHF is very necessary to prevent transmission of DHF. Lack of knowledge can affect the actions to be taken, because knowledge is one of the supporting factors for the occurrence of behavior.

According to A. Wawan (2012), based on the behavioral theory put forward by Skinner, behavior is the result of the relationship between stimulus and response and response. The stages of behavior according to Skinner are known as the ABC theory which consists of triggers that cause a person to

behave (Antecedent), reactions or actions to triggers (Behavior), and subsequent events that follow the behavior (Consequences). Human behavior has a very broad scope, including walking, talking, reacting, dressing and so on. Internal activities such as thinking, perception, and emotion are also human behaviors.

The researcher's assumption is that the knowledge of the head of the family about DHF will indirectly influence the behavior of the head of the family, especially in preventing and eradicating mosquito breeding sites that cause DHF (newspapers, magazines and the like) so that the better the knowledge of the head of the family, the better the behavior of the head of the family in eradicating DHF mosquito nests (PSN).

Based on the results of research conducted by researchers in DHF endemic areas in the Working Area of the Muara Dua Community Health Center, Lhokseumawe City, it is known that most of the heads of households about DHF are in the category of sufficient and good, only a small proportion, namely 18.4% of family heads, have less knowledge. This indirectly influences the behavior of the head of the family in eradicating DHF mosquito nests, where based on the results of this study it is known that most of the heads of families (70.4%) have good behavior in PSN DHF. In addition to the knowledge factor of the head of the family, another factor that supports the behavior of the head of the family is the support from the puskesmas or health workers.

In this study it was also known that there were a small number of family heads who still had poor knowledge about DHF so that their behavior regarding PSN became unfavorable. There are several factors that influence the lack of behavior of the head of the family, including the education level of the head of the family, the motivation or desire of the head of the family to gain knowledge about DHF is still low because no member of their family has been infected with DHF so they consider knowledge about DHF to be unimportant as well as perceptions or assumptions. the head of the family thinks that the problem of DHF is the duty of the health worker so that the family does not feel the need to know more about DHF and how to prevent it.

Based on the discussion, theory and related research above and in accordance with the results of this study, namely that there is a relationship between knowledge and the behavior of the head of the family in Eradicating Mosquito Nests (PSN) in Dengue Endemic Areas, Muara Dua Health Center, Lhokseumawe City (Ha accepted), the researcher thinks that the better the knowledge the head of the family, the better his behavior in PSN, and vice versa, the less good the knowledge of the head of family in PSN, the less good his behavior towards PSN.

Conclusion

Based on the results of the research and discussion described in the previous chapter, the following conclusions can be drawn:

1. The knowledge of heads of families in the DHF Endemic Areas of the Muara Dua Health Center, Lhokseumawe City, regarding PSN was highest in the sufficient category, namely 47 respondents or 48% and lowest in the less category, namely 18 respondents or 18.4%.
2. The behavior of the head of the family regarding PSN was highest in the good category, namely 69 respondents or 70.4%, and the lowest was in the unfavorable category, namely 29 respondents or 29.6%.
3. The statistical test results obtained a ρ value of 0.000, which means it is smaller than the alpha (α) value of 0.05. It can be concluded that there is a significant relationship between knowledge and behavior of heads of families about PSN in the DHF Endemic Areas of the Muara Dua Health Center, Lhokseumawe City, so that Ha is accepted and Ho is rejected.

Suggestion

Based on the results of these studies, some suggestions can be given as follows:

1. For researchers: the results of this study are expected to add to knowledge, especially about the relationship between knowledge and the behavior of the head of the family in eradicating mosquito nests.
2. To the respondent/head of family: it is hoped that they will continue to increase their knowledge and understanding of PSN in order to prevent the spread of dengue hemorrhagic fever in their neighborhood.

3. To researchers: it is hoped that further in-depth and comprehensive research involving other variables related to the eradication of DHF mosquito nests in the community will be carried out.

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