

PHENOMENOLOGY STUDY OF VARIOUS OBSTACLE EFFORTS TO ELIMINATE OF DENGUE HAEMORAGIC FEVER IN BANYUMAS DISTRICT

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Abstract

*Dengue fever is an illness that is now internationally paid attention with more than 50 millions cases each year. In Indonesia the prevalence of dengue fever is still high. In 2007 there are 71 cases for each 100.000 people and the percentage of mortality reaches 1,010% for each 100 patients of this illness. There are 12 provinces which have been noted as the great case area/KLB of dengue fever (anonymy, 2004). Every year this epidemic always happens. One of the causes of decreasing effectiveness of mosquito's vector control and also the wrong view about the treatment of dengue fever as well as narrow participation of community in vector control. The research purpose is to identify various obstacle efforts to eliminate dengue haemorrhagic fever from agent factors, host factors and environment factors. Research design is qualitative with phenomenological approach. Informants consist of 8 participants from two districts recent and long time of endemic. Data taken with interview, observation and self-data sheet. The result of research that obstacles of vectors elimination are from agent not yet vaccination, and community have breeding place of *Aedes aegypti*. Obstacles of host, community participation of vector control and role of health official in health education not yet maximum. Obstacles of environment cleanliness of environment not yet optimum, so will cause of risk transmission of DHF as communicable diseases in community. Conclusion this research to prevention of dissemination dengue haemorrhagic fever from agent, host and environment factors be needed participation of community be continue in activity of elimination breeding place *Aedes aegypti*, as well as support from health official.*

Keywords: *Phenomenology, Obstacle, eliminate of dengue haemorrhagic fever*

BACKGROUND

Dengue is a disease that becomes international attention with amount of cases in all of the world achieve 50 millions per year. In Indonesia, the prevalence of dengue still high enough, in 2007 it was registered 71 people per 100.000, while the died victim achieve 1,010% per

100 sufferer, and it was 12 province that stated as a zone of outbreak of dengue (KLB). In Desember 2008, Banyumas district becomes a territory outbreak of dengue, after 685 citizens was stricken by dengue, and nine of them was died. In 2002, Banyumas becomes a sequential region of prevention dengue program. This outbreak caused by raising endemic area in Banyumas, which is from 29 country become 41 country. It is probably lack of effective mosquito vector and also there was a mistaken in handling DBD and the role of society in eliminating the mosquito nest is still lack. Finally, the strategy of elimination DBD can not be carried out well. So that, Indonesia always be shadowed by the outbreak of dengue in every year

There were many obstacle in eliminating DBD, such as : most of the Indonesian people not realize the important of keeping the cleanness, and also the habit of the society to accommodate the water. In certain area that the taste of water is salty and the availability of drink water is not regular, people accustomed to accommodate the clean water in a drum that can be filled with 200 liter water and the water is accommodated for a long time. That drum becomes a place for breeding *Aedes aegypti*. Meanwhile, in a region with good water availability, most of people is also accommodate the water in bathtub. It is because, people are happier to take a bath using water dipper than shower. Though the water in bathtub always used but usually not until used up so that the larva is still stay in that place. Beside that, if there is a movement. Larva will move into beneath so that it is not expelled at the time of water taken. Other habit that can also obstruct in eliminating DBD is not deplete the bathtub regularly. Though most of the society was deplete regularly, usually they deplete the bathtub with a wrong way. The drain mostly done by replacing the water without brushing the wall. That way is not effective because the eggs of *Aedes aegypti* still stick in the wall. The egg of *Aedes aegypti* can live until 6 month so that if they are not removed, they will continue their live cycle.

From those cases, it needed to know the obstacle in eliminating DBD, so that the expectations can found the most effective strategy toward the elimination DBD, as an effort to prevent the outbreak. By approaching phenomenology, it is

expected that the sort of obstacle can be explored by society in order to elimination DBD.

RESEARCH PURPOSES

1. General Purpose

Doing fenomology study from many obstacle in eliminating DBD in Banyumas district

2. Particular purposes

- Identify the various elimination obstacle vector DBD from agent aspect (germs), such as the existence of larva (container indeks)
- Identify the various elimination obstacle of DBD from host aspect (human) such as the role of society in participation with eradication of breeding place and the role of medical officer in health education.
- Identify the various elimination obstacle of DBD from environment aspect, such as the quality of physic environment or social environment.

RESULTS AND DISCUSSION

DATA ANALYSIS

1. Characteristics of Informants

No	Id	Age	Education	Job	Ever given Penkes dbd
1	SS	45 th	Under graduate	Teacher	Ever
2	SP	62 th	Bachelor	Retired Teacher	Ever
3	MS	34 th	Primary	Traders	Yet
4	SM	45 th	Primary	Farmer	Yet
5	UH	30 th	Under graduate	Nursing	Ever
6	KT	64 th	Junior High School	Housewife	Ever
7	NH	49 th	High School	Traders	Ever
8	SL	56 th	Primary	Farmer	Ever

2. Observations

The results of observation emphasizes the physical aspects such as the availability and state shelters water, environmental hygiene conditions both inside and outside the home.

3. Interview Results

Below are the results of research interviews with informants related to the objectives and research questions.

a. Identify barriers eradication of dengue vectors aspect agents (germs), includes the presence of larvae (container index)

Based on the interviews can be identified several possible presence of larvae in containers owned by informants:

RESEARCH METHODS

Design Research

Qualitative study with a phenomenological approach

Informant

Sampling was purposive sampling. Based on the existing theory, the number of samples in qualitative research between 5-8 (Angraeni, M & Saryono, 2010). Informants in this study were 8 people from endemic and not endemic districts

Guidelines And Data Collection Method

Data collection using interviews and observations

Data Analysis

The steps in analyzing the data:

- Transcribing interviews and observation reports
- Analyzing the results of the interview transcripts and observation reports
- Seeking categories
- Describing Category
- Discussion of research findings

- The permanent water storage (TPA) which shelter for daily household use, in general, the state of the water is clear, calm and not flow like bathtubs, toilets, water storage drums and others
- Not water reservoirs (non- TPA) is a container or a container that can hold water, but not for everyday purposes such as drinking places pets, used goods (tires, cans, bottles, broken plates/cups), vases or pots flowers and others.
- The natural breeding. Not a water reservoir but naturally can be a reservoir of water such as a piece of bamboo, fence holes, leaf midrib containing water and used a coconut shell filled with water.

According Widiyanto, T, (2009). Various studies have been conducted on mosquito breeding is found that :

- 1) The natural breeding is preferable when compared with non- natural
- 2) Type of clay and bamboo containers most favored when compared cement containers, glass/glass, aluminum and plastic containers of bright colors (brown, yellow and red) is preferred as a breeding ground. The deeper the water surface distance to the surface vessel more larvae obtained.

b. **Identify barriers dengue eradication of aspects host (human), namely the lack of community participation in the PSN. Forms of community participation that can be done:**

1. Drain the tub, vessel,container/other water reservoirs, at least 1 X/Mg, because of the development into mosquito eggs take 7-10 hr
2. Cleaning the yard, so it does not become a nest vector.
3. Making good home lighting and avoid clothes hung, which provide opportunities mosquitoes rest, dispose of

used goods in the space provided/bury, giving abate the water which are difficult to clean. In addition, the role of health workers in health education is not optimal

c. **Identify barriers dengue eradication of environment aspects (environment), covering both the environmental quality of the environment inside and outside the home**

Adverse public health habits and lack of attention to environmental hygiene habits such as cleaning the yard, cleaning mosquito breeding, habits reservoir to store water in a water bath, as the water reservoirs are often not washed and cleaned on a regular basis eventually become a potential breeding places of Ae. aegypti. According Notoatmodjo (2003) influence people's behavior on the environment because the environment is an area for the development of these behaviors. Environmental conditions that favored mosquito for perch/resting places that are dark, damp and a bit cold, also the hanging clothes.

Category Data

Categories of data for subjects 1 to 4

NO	CATEGORY	SUBJECTS1	SUBJECTS2	SUBJECTS3	SUBJECTS4
1	Knowledge about dengue	Good enough	Good enough	Less	Less
2	An understanding of dengue Agent	Aedes aegypty	Dengue Virus	Mosquitoes, but do not understand the type mosquitoes	Mosquitoes, but do not understand the type mosquitoes
3	The existence of larvae	There is water in the container, place the chicken drink, flower vases, used goods	Contained in the tub, used goods	There the water is dirty shelters	Contained in the tub
4	Participation in the eradication	The notion of participation PSN, routinely carry out	The notion of participation PSN, but not routinely carry out because of busy	Not knowing participation in the PSN	Not knowing participation in the PSN
5	The role of health workers	Health workers are less active	Health workers are less active	Do not know the role of officers	Do not know the role of officers
6	environmental factors	Environmental sanitation is important	Environmental sanitation is important	Environmental sanitation is important	Environmental sanitation is important

Categories of data for subjects 5 to 8

NO	CATEGORY	SUBJECTS5	SUBJECTS6	SUBJECTS7	SUBJECTS8
1	Knowledge about dengue	Very good	Good enough	Enough	Less
2	An understanding of dengue Agent	Dengue Virus	Aedes aegypti	Mosquitoes, but do not understand the type mosquitoes	Mosquitoes, but do not understand the type mosquitoes
3	The existence of larvae	There is water in the container, place the chicken drink, flower vases, used goods	Contained in the tub, used goods	There the water is dirty shelters	There the water is dirty shelters
4	Participation in the eradication	The notion of participation PSN, but not routinely carry out because of busy	The notion of participation PSN, routinely carry out	Not knowing participation in the PSN	Not knowing participation in the PSN
5	The role of health workers	Health workers are less active	Health workers are less active	Do not know the role of officers	Do not know the role of officers
6	environmental factors	Environmental sanitation is important	Environmental sanitation is important	Environmental sanitation is important	Environmental sanitation is important

DISCUSSION

Based on interviews, observation and other complementary data sources and data analysis in this study can be seen that knowledge/understanding of dengue agent informants vary although most have been good. According to Green (1980), quoted from Notoatmodjo (2003) that knowledge is a predisposing factor for the occurrence of the behavior. Or cognitive domain knowledge is very important for the formation of one's actions (overt behavior) and he also said that based on the knowledge of the behavior of more enduring than behaviors that are not based on knowledge. If the respondent does not know clearly how to eradicate mosquito breeding and factors influencing the presence of larva can not take an appropriate action, so that the respondents in the larvae of *Aedes aegypti* found any.

Based on observations and interviews about the presence of mosquito larvae itself is very close to the community. The whole informant has potential places to be breeding *aedes aegypti* mosquito place. This is due to several things, among others, the mosquitoes have lived in fresh water habitats in water reservoirs around the house, inside the house such as: crock/bowl, tub, bathroom/wc, urn/vase, pot is not perforated, pedestal pot, taking place in bird cage, outside the home: rainwater drums, old tires, tin cans, broken

bottles, dishes, pots no holes, a used bucket, and so on.

In observance of the *aedes* mosquito behavior, the role of participation masyarakat eradication need to eradicate mosquito larvae *Ae aegypti* especially in the home and environment, respectively. Public participation is intended participation in environmental quality monitoring activities. Environmental quality supervision is the most effective activities for dengue vector control, the activities that can be done through cleaning mosquito breeding (PSN). PSN aims to eradicate or prevent the mosquito larvae can not breed. This method is a way that most effectively implemented due to several considerations, among others : it does not require great expense, can be contested to be the cleanest area, the environment clean, Indonesian culture that happy life work together. With a good environment is not impossible, other diseases caused by dirty environment will be reduced. Thus an important step in the fight against dengue is via PSN activity involving the active participation of the community. The results of research into improved environmental quality in order to eradicate dengue fever in the District of Sukabumi shows that monitoring environmental quality is consistently more effective than other interventions. Decrease house index reached 13.3, the container index and Breteau index 13.4 1.0 (Sumengen, 1990).

Environmental aspects have considerable potential for the spread of dengue disease, especially in the area/region is densely populated, especially on big cities. This is because the distance to fly *Ae. aegypti* approximately 100m. In Indonesia, especially the affected areas of the city, but since 1975 it also contracted the disease in suburban and rural areas are densely populated and high mobility. In addition, the distance between the house also affects the spread of mosquitoes from one house to another, the closer the distance between the house mosquitoes spread more easily on either side of home. Ingredients for home, home construction, the color of the walls and setting items in the house causes the house liked or not liked by mosquitoes. Various infectious diseases research proves that housing conditions and the jostling slum has a greater likelihood of developing the disease. (Teguh, W, 2007).

CONCLUSIONS AND RECOMMENDATIONS

Barriers eradication of the dengue vector agent aspects, since no vaccine, dengue virus, and basically all the communities have places that allow it to become a breeding place for mosquitoes *Aedes aegypti*. The resistance of the host aspect of community participation in the PSN and the role of workers in health education has not maximal. The resistance of the aspects of environmental hygiene is not optimal environment giving rise to the risk of transmission of dengue disease transmission in the community. Suggestion need active community participation in the activities of continuous mosquito nest eradication, as well as full support from health workers.

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