FACTOR ANALYSIS OF RESPONDENTS KNOWLEDGE AND PERFORMANCE OF LARVA MONITORING WITH DENGUE HEMORRHAGIC FEVER IN THE SUBDISTRICT DRINGU, DISTRICT PROBOLINGGO

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ABSTRACT

Background: Dengue hemorrhagic fever is a contagious disease that is still noted as problem in Indonesia. The incidence of dengue fever in Indonesia experiences a high number. Indonesia is a high risk location for contracting dengue because the agent of this disease is Aedes aegypti

Cases of dengue fever in the district of Probolinggo is an annual disease there. In Subdistrict Dringu sees incidence of dengue fever annually. Subdistrict Dringu has become one of the endemic areas of dengue fever.

Materials and Methods: This study was an observational study with cross sectional design. Sampling was conducted using cluster random sampling with multistage cluster random sampling method. The total sample of 100 heads of family

Result: The result of this study showed that the respondents' knowledge about the incidence of dengue hemorrhagic fever (p = 0.004) and the performance of larva monitoring (p = 0.000).

Conclusion: Respondents knowledge of dengue fever have been good and the performance of larva monitoring is still lacking due to lack of passage of the program and only a few are regularly to control.

Keywords: respondents knowledge, performance larva monitoring, the incidence of dengue fever
1.0 Introduction

Until today, dengue fever disease is one of public health problems in Indonesia. Progressively, it experiences an increase number and wide distribution. Indonesia has a great risk for contracting dengue fever due to dengue virus and the mosquito Aedes aegypti that lives in stagnant water around the house. This disease continues to spread rapidly among the people due to its vector available, namely Aedes aegypti and the public did not have immunity against (Widoyono, 2005).

Dengue fever in Indonesia was first discovered in 1968, namely in Surabaya, East Java. Since then, the disease caused by the dengue virus has spread to all parts of Indonesia and poses a public health problem (Ministry of Health of Indonesia, 2004). Recently, dengue fever is a serious threat Where prevention efforts is ongoing. From 1968 to 2009, Indonesia was the country with the highest cases of dengue hemorrhagic fever in Southeast Asia. In East Java province, dengue fever is a public health problem and endemic in almost all areas of the city / regency in East Java. Annually, East Java notes dengue hemorrhagic fever as an catastrophic event. In 2010, the incidence of dengue fever in East Java reached 25 762 cases with a mortality rate of 230 souls, then the next year ie 2011 sharp decline reached 5,374 cases with a mortality rate of 65 souls. Then in 2012 there was an increase of cases, amounting to 8266 cases with a mortality rate up to 119 people. In 2013 had increased to 14 936 cases and in 2014 decreased to 8906 cases (East Java Provincial Health Office, 2015). One of the districts in East Java, Probolinggo, is written as an area of catastrophic event every year.

One of the districts in East Java, Probolinggo, is written as an area of catastrophic event every year. In 2013, it was noted as rank 29 out of 38 city/district level of dengue fever incident. Dringu, part of Probolinggo district, experienced the top 10 areas with the highest number of dengue fever of 24 subdistrict in Probolinggo in the last three years. In 2012 it ranked 4 while in the following year experienced as 6th position. In 2014 it came to be 5th. Two patients died cause of dangufe fever in 2010, then until 2014 there was no death events (Probolinggo Health Office, 2015).

2.0 Materials and Methods

Dengue fever often cause panic in society because of its rapid spread and potential causes of death for the sufferer. Dengue hemorrhagic fever is a disease caused by a virus that includes Arbovirus marked by sudden high fever with no apparent cause, continues for 2-7 days, bleeding manifestations (peteke, purpura, bleeding of the conjunctiva, epistaxis, mucosal bleeding, bleeding gums, hematemeses , melena, hematuria) including tourniquet test (Rumple Leede) positively, thrombocytopenia (platelet count <100,000 / l, hemakonsentrasri (increased hemokrotit> 20%) with or without enlargement of the liver (Soegeng, 2003).

Efforts to prevent dengue fever have been intensively conducted by the government, such as counseling on prevention of dengue fever. Increased knowledge to the public about dengue
fever is very important considering that dengue fever has become endemic and there is no vaccine to make a person immune to this disease (Yudhastuti, 2011). It is also supported by research Ashih (2013) which states that an increase in knowledge may affect the incidence of dengue fever. Increased knowledge is expected to increase public awareness on preventive measures of dengue fever.

This study was an observational study because it is directly from observations without providing treatment to the object of study, and when viewed from the nature of the research was an analytical study because it wanted to dig up information as to why the case could occur. This study also used a cross-sectional since the time of data collection or observation is done at the same time.

The research location is in Subdistrict Dringu District Probolinggo. Of the 14 villages in the Subdistrict Dringu then selected four villages in the sample. Determination of the village with simple random sampling. Elected village Pabean, Kedungdalem, Kalirejo and Randuputih. The study was an observational study due to pull data directly from observations without providing treatment to the object of research. Sampling method used a cluster random sampling because samples that are in one group (cluster). The method using multistage cluster random sampling for sampling through several sample calculations of a group (Notoatmodjo, 2010). The population in this study are heads of household in the Subdistrict Dringu District Probolinggo many as 16,965 households. Calculation of the sample by using the formula slovin with an error rate of 10%. Thus, the samples of the study were 100 households in four selected villages.

Before doing the distribution of questionnaires and interviews, researchers explained the purpose of the study by reading the explanation sheet before approval. Then give informed consent. After the respondents agreed with the signed informed consent witnessed by a witness, then the process of sharing observations and questionnaires can be implemented.

Data processing techniques, namely primary data have been obtained before processing the editing process is carried out beforehand to see the completeness of the data. After the data was being complete, then treated with a recap results using calculators or computers then be explained descriptively. Furthermore, to determine their relationship with the incidence of dengue fever using analytic with Chi Square test (α = 0.05), which preceded the formulation of hypotheses, namely: Ho: there is a correlation between the respondents' knowledge and performance of larva monitoring by the incidence of dengue hemorrhagic fever and HI: none the relationship between the respondents' knowledge and performance of larva monitoring by the incidence of dengue hemorrhagic fever. This research has been carried out a test of ethics and ethics committee approval at the School of Public Health, University of Airlangga.

3.0 Result

3.1 Regional Overview Research

The study was conducted in the Subdistrict Dringu District Probolinggo. There are 4 village where the research Pabean Village, Kedungdalem Village, Kalirejo Village, and Randuputih Village. Subdistrict Dringu has an area of 16,961 km². Subdistrict Dringu situated at an altitude of 10 m above sea level. Subdistrict Dringu tropical climate which is divided into two
seasons namely rainy and dry season. The rainy season occurs from October to April and the dry season from April to October. The heaviest rainfall is 292 mm Hg and the smallest precipitation is 85 mm Hg. Number of rainy days is 76 days with precipitation a year 1.690 mm Hg. For temperature, Subdistrict Dringu has a relatively hot temperatures as low-lying areas in general, ie between 27 to 31 ° C (Subdistrict of Dringu Profile, 2015).

Subdistrict Dringu residents amount of 52,285 inhabitants with a total of as many as 16,965 households. For this level of education, the greatest number are finished primary school, amounting to 15,796 inhabitants. While at least a college graduate, which amounted to 1,596 inhabitants. This type of work most people District Dringu is a farmer, in the amount of 6976 inhabitants (Subdistrict of Dringu, 2015).

3.2 Characteristics of Respondents

Based on the results of research in the field, then showed that the respondents in the study with an average age> 40 years, namely by 52%. While at least an average age of 17-30 years is 19%. The youngest age in this study was 19 years old and the oldest 63 years of age.

For the respondents' education level have largely received his high school education, ie by 46%. While at least that is graduated from college as much as 9%. Respondents who have a higher education tend to have a more complete answer with regard to dengue fever, such as signs and symptoms of dengue fever. But not a few respondents only completed primary school were also able to provide complete answers. Respondents with higher education levels are more cooperative in answering. Respondents with higher education capable of appreciating a good effort by the government, so that actions oriented towards the prevention of dengue fever more visible results. This is due to the high level of education, respondents were able to think more objective and easier to absorb and adopt science received, so that the respondent is able to know and understand more about health issues and have a better health status.

The experience of a thing can be of more value, so as to better understand the dangers of dengue fever and its prevention. Respondents who ever dengue fever are more likely confident and fluent in answering all questions. It is also supported by research Dulay (2013) and Sam (2013), which explains that the respondent ever dengue fever has a high degree of willingness to cooperate in answering questions. Respondents were never sick a lot more to know about dengue fever than respondents who had never been sick. Affecting the way to answer questions from investigators.

3.3 The incidence of Dengue Hemorrhagic Fever

Results of research on the incidence of dengue hemorrhagic fever can be seen in table 1.

Table 1: Distribution of Incidence of Dengue Hemorrhagic Fever in the Subdistrict Dringu District Probolinggo

<table>
<thead>
<tr>
<th>Incidence of DHF</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ever Sick of Dengue Fever</td>
<td>31</td>
<td>31%</td>
</tr>
<tr>
<td>Never Sick of Dengue Fever</td>
<td>69</td>
<td>69%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Based on Table 1 it can be seen that 31% of respondents xposed to dengue fever, while 69% of respondents are never exposed to dengue fever. That data notes more than the data from
Dringgu health center. This is because most people do not go to health centers because they prefer go to general practitioners. Rarely respondents who went to the Dringgu health center when ill. Most people with dengue fever unrecorded in health centers, make the data in health center Dringgu incomplete. Dringgu health center should be collaborated to local villages to make the entry better.

3.4 Respondents Knowledge About Dengue Fever

Results of research on the level of knowledge about Dengue can be seen in table 2

Table 2. Distribution of respondents Knowledge Level About Dengue Fever.

<table>
<thead>
<tr>
<th>Knowledge Level</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>82</td>
<td>82%</td>
</tr>
<tr>
<td>Moderate</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Less</td>
<td>18</td>
<td>18%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Table 2 indicates that as many as 82 respondents have a good level of knowledge. While that have this level of knowledge is less a total of 18 respondents.

Results of research on the respondents' knowledge with the incidence of dengue fever shows that p = 0.004 (p <0.05). It can be concluded that Ho is rejected and Ha accepted, meaning that respondents' knowledge of dengue fever have been associated with dengue fever in the Subdistrict Dringgu District Probolinggo.

3.5 Performance of Larva Monitoring

Results of research on the performance of larva monitoring can be seen in table 3

Table 3: Performance of Larva Monitoring

<table>
<thead>
<tr>
<th>Performance of Larva Monitoring</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>12</td>
<td>12%</td>
</tr>
<tr>
<td>Less</td>
<td>88</td>
<td>88%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Based on data in Table 3 is known that only 12 respondents saying larva monitoring well performance. While the rest expressed less. Results of research on the performance of larva monitoring the incidence of dengue fever shows that p = 0.000 (p <0.05). It is concluded that Ho is rejected and Ha accepted, meaning that the performance of larva monitoring have relation to the incidence of dengue fever in the Subdistrict Dringgu District Probolinggo.
4.0 Discussion

Knowledge of dengue is one of the factors related to the occurrence of dengue fever (Nur Aisah, 2013; Arifin, 2012; Maria, 2013; Berdian, 2013, Hutagalung and Halim, 2009; Sidiek, 2012). Thus the results of this study support the indirect knowledge which can influence the incidence of dengue fever. Respondents who have had dengue fever tend to have good knowledge about dengue fever. This is because they have learned from the incidence of dengue fever has ever experienced, so that there is a general fear of suffering back. It is also supported by research Rahman (2014) which states that the respondents had experienced dengue fever knowledge about dengue fever higher. Respondents who have had dengue fever answered the question more cooperative. This shows there is a special experience of respondents who had experienced dengue fever to take a lesson from the incident so that no longer suffer from similar diseases. Respondents who had never been sick tend to underestimate disease dengue fever and feel less need knowledge of dengue fever. Respondents who never get sick of dengue fever has yet to feel a sense of concern and the real impact of dengue fever.

The government in this case Probolinggo Health Office together with Dringgu health centre further enhance dissemination activities such as outreach to increase public knowledge about dengue because there are still people who lack knowledge level. In addition to increasing knowledge, counseling is also expected to increase public awareness about the importance of preventing dengue fever. It is also supported by studies of June (2015) and Elyas (2016) which states that education is important to increase public awareness and prevent the occurrence of dengue fever. With increasing public knowledge about dengue fever is expected that the incidence of dengue fever can be suppressed. Knowledge is indeed a very important thing for behavioral change (Notoatmodjo, 2007).

Performance larva monitoring is still less than the maximum and less compact. There is also a larva monitoring duty when only cases of dengue hemorrhagic fever. Larva monitoring is a cadre that every village there is only one person. Larva monitoring in District Dringgu as many as 56 people spread over 14 villages. According to the information the health center Dringgu, all active larva monitoring and monthly check every house in the working area. But the fact the field points to the fact that the opposite. Larva monitoring is not routinely come. The task of larva monitoring is monitoring the whole water reservoirs in the house of the presence of mosquito larvae. Larva monitoring equipped with flashlights and larvae survey card. If found mosquito larvae, then the larva monitoring will record the findings into larvae survey card and reprimanded the owner of the water reservoirs/

Performance larva monitoring less than the maximum effect on the incidence of dengue fever. This is supported by studies Bain (2011), which explained that the mosquito larvae monitoring needs to be done to prevent mosquito rapid growth so as to reduce the incidence of dengue fever. Need attention from the government to improve the performance of larva monitoring so as to prevent the occurrence of dengue hemorrhagic fever.
5.0 Conclusion and Recommendation

Based on the results of research, data analysis, and discussion in the previous chapter, the obtained several conclusions, among others: the knowledge respondents have largely been good, but there are some respondents that the level of knowledge is still lacking. Based on the results of Chi Square test, it is known that the respondents’ awareness of dengue hemorrhagic fever associated with the incidence of dengue fever. Performance larva monitoring mostly in District Dringu still lacking. Based on Chi Square test showed that the larva monitoring performance associated with incidence of dengue.

Local authorities are advised to conduct socialization activities or education about dengue fever. Education about dengue fever is very important because there are still people who have less knowledge about dengue fever as well as to increase public awareness of the importance of preventing dengue fever. Health centre Dringu in this case as a shaper and builder larva monitoring should actively evaluate and went downstairs to see firsthand how the performance larva monitoring. During this health center Dringu only receive data only and less able to act when the larva monitoring is not active. Need good coordination and delivery of rewards to larva monitoring that has good performance of their duties. So there is a spirit to perform the duties of the larva monitoring. In addition to awarding the prize, the health center Dringu should routine to evaluate the performance of larva monitoring. If the larva monitoring is no longer able to perform the task well, then health centre Dringu should replace it with a new officer. So that the larva monitoring program remains. If the larva monitoring is not active, then the water tanks or containers belonging to residents are not monitored, so that people are less concerned with the importance of monitoring mosquito larvae can be at risk for dengue fever because of the development cycle of the Aedes aegypti mosquito can take place properly.

Community care is to be improved. The government’s efforts to increase public awareness of the importance of mosquito eradication has often done. But public awareness is low making has not been successful in mosquito eradication efforts. Implementation of mosquito eradication by doing 3M plus a continuous basis in order to home and public areas free of Aedes aegypti mosquito larvae so that the transmission of dengue fever can be prevented (Ministry of Health, 2005). Health centre Dringu is expected to enable more larva monitoring in each village. Vacuum larva monitoring may affect the rapid proliferation of mosquitoes, so the health center Dringu asked to immediately activate again larva monitoring the vacuum as well as continue to foster active larva monitoring to avoid a vacuum.

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