Level of Family Knowledge Vulnerability on Prevention of Leptospirosis Disease with Leptospirosis Event at RT/RW 05/06 Glugur District Sampang

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ABSTRACT

Background: Leptospirosis is known by the name flood fever or fever flood. The rate of introduction and knowledge about prevention of disease leptospirosis still felt very less for society. The disease leptospirosis epidemic allegedly contracted through rat urine, which is spread to humans through water flooding, as well as cuts in the body. This is aggravated because of the lack of knowledge about prevention of leptospirosis disease family such as not washing hands after the post flood clean up, letting the mice breed around the house.

Methods: This type of research using the method of analytical research on correlation with approach case-control (retrospective). The population in this study is all the families of the victims of the flood as many as 62 patriarch. The number of samples of the 54 respondents using the probability of simple random sampling.

Results: From the results obtained that half (50%) of family knowledge of flood victims about the prevention of disease leptospirosis by category, and the incidence of the disease leptospirosis is almost entirely (89%) have never experienced the disease leptospirosis. Based on the results of the logistic regression correlation obtained test results $P = 0.000 < 0.05$, this proves that H_0 is rejected H_1 is accepted, meaning that there is a relationship between the level of knowledge about prevention of flood victims family disease leptospirosis in disease occurrence by RT/RW 05/06 Glugur Sub-District Sampang regency Sampang.

Conclusions: Level of knowledge about prevention of flood victims families the disease leptospirosis enough and should be increased again to minimize the incidence of the disease leptospirosis on the families of the victims of flooding and can achieve a degree of optimal health. As well as the importance of health workers in providing health education to increase the knowledge of families of the victims of the flood.

Key words: Knowledge, Leptospirosis, Prevention

INTRODUCTION

The family is the environment where some people still have blood and union relationship. The family is defined as a group of people living in one house who still have kinship or blood relation because of marriage, birth, adoption, and so on.[1] Leptospirosis is an infectious disease that can affect humans and animals. This contagious disease is an animal disease that can infect humans.[2] Leptospirosis is one of the most common zoonotic diseases in the world. Leptospirosis is also known by the name flood fever or flood fever because it appears due to flooding.[3] The level of recognition and knowledge about prevention of leptospirosis disease is still felt very less for the general public. One factor is the lack of families of flood victims get access to health information about the prevention of leptospirosis.[4] Leptospirosis disease outbreaks are thought to be infected through rat urine, which spread to humans through flood waters, as well as bodily injuries. This is exacerbated by the lack

of family knowledge about prevention of leptospirosis diseases such as not washing hands after cleaning after flooding, letting mice breed around the house.

Incidence of leptospirosis worldwide is not known for certain. In areas with extraordinary occurrence of leptospirosis, the incidence of leptospirosis may reach more than 100 per 100,000/year.[5] In tropical areas with high humidity, the incidence of leptospirosis ranges from 10 to 100 per 100,000 whereas in the subtropical region the incidence rate ranges from 0.1 to 1 per 100,000/year. Case fatality rate (CFR) of leptospirosis in some parts of the world is reported to range from <5% to 30%.[6] The International Leptospirosis Society states that Indonesia is one of the tropical countries with relatively high cases of leptospirosis deaths, in 2013 ranging from 2.5% to 16.45% or an average of 7.1% and ranked third in the world. This mortality can be higher up to 56% at age above 50 years if late to get therapy (Health Office RI, 2013). According to the results of Spot Survey East Java Provincial Health Office leptospirosis incidence rate in 2013, there were 34 cases and died 8 people (CFR: 28.9%). The total incidence of leptospirosis is derived from Sampang Regency, even according to the Head of Sampang District Health Office, dr. Firman Pria Abadi said, "Because the patient continues to increase until 8 of them died, then the District Health Office of Sampang, finally declared as an extraordinary event or outbreak." The outbreak of post flood disease known on April 24, 2013, when 4 patients died of leptospirosis. But after data in all health centers and hospitals in Sampang found 34 patients with leptospirosis, 7 of them died in the hospital, and 1 other patient died after being treated at home. While the results of preliminary studies conducted by researchers on December 30, 2013 in RT/RW 05/06 Glugur Sampang District Sampang regency obtained the number of Head of Family as much as 62 families. This area is one of the areas that experienced floods in April 2013, which there are 12 people with leptospirosis and 1 patient died.

Epidemiologic leptospirosis disease is influenced by three main factors, i.e., agent factor of disease related to cause including amount, virulence, pathogenicity of leptospira bacteria, second factor related to host factor including personal hygiene, nutrition, age, education level, and the third factor is the environment.[7] In the leptospirosis occurrence of highly influential environmental risk factors such as the presence of waterlogging, the impact of flood and poor sanitation. In some countries, leptospirosis is known as icterohemorrhagic fever, mud fever, swineherd disease, swamp fever, Weil's disease, and canicola fever.[8] According to some of the most common researchers infecting humans is L. icterohaemorrhagiae, with rat reservoir, L. canicola, with reservoir dogs and L. pomona with reservoirs of cattle and pigs.[9] The disease is characterized by a sudden high fever to chills accompanied by headache, muscle pain, hiperaestesia on the skin, nausea vomiting, diarrhea, relative bradycardia, jaundice, and silica injection of the eye. This phase lasts 4-9 days and ends with the disappearance of clinical symptoms for a while. Clinical symptoms in leptospirosis disease are not to be ignored because it can deliver patients in the phase further to cause death. If the level of knowledge and behavior is not in accordance with the principles of health, it can cause health problems.[10] One of the causes of high incidence and mortality due to leptospirosis disease is the lack of understanding and knowledge of a person about the causes and prevention or prevention of leptospirosis.

One of the efforts of families of flood victims to prevent infected leptospirosis is by washing hands with antiseptic soap after cleaning the house after the flood, reducing the population of rats in several ways such as (use of rat poison, trap installation, rondentisida use and predator ronde), mencegah rat and other wild animals live in human habitats by (maintaining a clean environment, disposing of waste, pruning grass and shrubs, and maintaining sanitation), and so forth. Based on the description, the researcher is interested to conduct research entitled "relation level of flood victim family's knowledge about prevention of leptospirosis with leptospirosis occurrence at RT/RW 05/06 Glugur Sampang District Sampang Regency."

METHODS

The protocol was approved by the local ethics committee and written informed consent was obtained from each patient. This research uses correlation analytic research method is a research method that aims to carry out the analysis of the presence or absence of relationships or differences between variables with case-control approach (retrospective).

RESULTS

Based on Table 1, from 54 respondents, almost all had never experienced leptospirosis disease, 48 respondents (89%), and some had leptospirosis disease (6%) (11%).

Based on research that has been done show that there is a correlation between the level of knowledge of flood victim family about leptospirosis disease prevention with incidence of leptospirosis disease in RT/RW 05/06 Glugur Sampang District Sampang Regency. This is indicated by the incidence of leptospirosis is almost entirely found in respondents who have a level of knowledge in the category of less, whereas respondents who showed the level of knowledge about the prevention of leptospirosis disease with good category and quite almost entirely did not experience the incidence of leptospirosis. With a good level of knowledge of respondents and enough to influence the behavior of respondents in preventing infected leptospirosis

Table 1: Characteristics of respondents based on the prevention of leptospirosis disease

Occurrence prevention of leptospirosis	Frequency (%)
Ever happened	6 (11)
Never happens	48 (89)
Jumlah	54 (100)

Table 2: Analysis of the relationship between the level of knowledge of the families of flood victims about the prevention of leptospirosis disease with the incidence of leptospirosis

Level of knowledge	Leptospirosis occurrence				Total	
	yes		No			
	Σ	%	Σ	%	Σ	%
Good	0	0	22	41	22	41
Enough	1	2	26	48	27	50
Less	5	9	0	0	5	9
Total	6	11	48	89	54	100

Statistical test results
P=0.000

diseases, namely, by washing hands with antiseptic soap after cleaning the house after the flood, reduce the population of rats, maintain a clean environment, dispose of waste in place, and so forth. Most respondents' educational background with high category of high school and college is very influential on the ability of respondents in absorbing information on prevention of leptospirosis, which is mostly obtained from local health workers and can improve the knowledge of respondents about prevention of leptospirosis disease, so that respondents are more aware in terms of preventing the occurrence of leptospirosis disease (Table 2).

DISCUSSION

1. Occurrence of leptospirosis in RT/RW 05/06 Glugur Sampang District Sampang Regency almost entirely (89%) has never experienced the incidence of leptospirosis disease
2. There is a relationship between the level of knowledge of the families of flood victims about the prevention of leptospirosis disease with the incidence of leptospirosis in RT/RW 05/06 Glugur Sampang District.

CONCLUSION

Knowledge as a very important domain in shaping one's actions or behavior and the level of knowledge within the cognitive domain. Knowledge can be influenced by various factors including experience, economy (income), socioeconomic environment, education, media exposure and information, and access to health services or health facilities.[11]

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