Provision of Public Awareness about the Event of Preparedness to Tsunami Hazard on the Beach Sidem

Besuki District District Tulungagung

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A B S T R A C T

Indonesia is a disaster supermarket, because all natural and non natural disasters have been experienced in Indonesia. One of them is tsunami. So the people must have good knowledge in the face of disaster. Unfortunately, the community, especially the family members, do not understand about the preparedness in facing the tsunami disaster. The purpose of this research is to analyze the influence of giving counseling about community preparedness to knowledge of tsunami hazard in Sidem Beach, Besuki District, Tulungagung Regency. The study was conducted on October 11, 2017. Type of observational research, quasi experimental design with one group pre-test approach - post test design and research instrument in the form of questionnaires. Population research of all people in Sidem beach Besuki District Tulungagung regency. Samples were taken by purposive sampling technique of 63 people. Data were analyzed by Wilcoxon Signed Ranks Test. The results of the research before the extension of tsunami hazard preparedness, most of the respondents of knowledge less as much as 46 respondents (73%) and after counseling most of the respondents good knowledge as many as 41 respondents (65.1%). Wilcoxon Signed Ranks Test statistical test obtained P Value = 0,000 <0,05 so H1 accepted, which means there is influence giving counseling about community preparedness to knowledge of tsunami hazard in Sidem Beach Besuki District Tulungagung Regency. Counseling by health workers as people who are trusted in the health sector is very useful in improving the knowledge of coastal communities about tsunami hazards. It is hoped that people have a good understanding of the tsunami and tsunami preparedness in order to save themselves in the event of a tsunami disaster at any time.

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I. INTRODUCTION

All natural and non natural disasters have been experienced in Indonesia so that Indonesia is called a disaster supermarket. One of them is a tsunami. in addition Indonesia's geographical location lies between two large oceans and is located in the area of tektonik plate that is prone to earthquakes. Disaster is a bad thing that happened to a person or a group of people, such as tsunami, flood, earthquake, Mount Merapi and so on that resulted in not a few people lost property, even life objects. (Disaster Management Act of 2007).

Tsunamis occur because of impulsive disturbances to seawater due to sudden sea-floor changes. This happens because of three causes namely Earthquakes, Volcanic Eruptions and landslides that occur at sea. The three causes of the tsunami above, earthquakes are the main cause. The size of the tsunami waves is largely determined by the characteristics of the earthquake that caused it. Most of the sources of the devastating tsunamis are earthquakes that occur on the seabed. Although volcanic eruptions can also cause devastating tsunamis (Center for Crisis Response of Health Ministry of Health of the Republic of Indonesia Year 2011).

Besuki District is one of the areas on the coast of Tulungagung regency which has a high risk of natural disasters. This is due to the physical condition of the area located on the coast which has an active pile zone of the Indo - Australian plate and the Eurasian Plate. This led to Besuki District being one of the most vulnerable areas of the tsunami. Besuki District's vulnerability to earthquake disaster was also followed by tsunami threat. shallow epicentrum (<30 km) that can lead to high ocean waves. Taking into account the distribution of earthquakes in Besuki sub-district with most of its epicenter in the sea, coupled with morphological conditions of Besuki Sub-district as a coastal city, has increased the vulnerability of Besuki Sub-district to the threat of tsunami disaster.

The results of the observation in the community found that not all coastal communities were informed about the tsunami disaster. The community also does not fully prepare the necessary equipment and equipment before, during and after the disaster. So far, the community, especially family members, do not understand about preparedness in facing the tsunami disaster, so the family members are less knowledgeable and less ready to face the tsunami disaster. The impact of the tsunami disaster could be the separation of family members, disability, death (mental death), mental stress, reduced ability to deal with problems, family conflicts, loss of property and livelihoods, damage to buildings and infrastructure and environmental damage (Febriana, 2009 & Sulistyaningsih, 2015).

When in a society does not have the capability in disaster preparedness, it leads to a large number of casualties and a recovery that takes a long time for people to return to normalcy after the disaster (Sulistyaningsih, 2015). The role of health personnel, especially nurses in disaster management, is in the pre-disaster stage (Pre-disaster). The role of nurses is that nurses are involved in various government agencies, environmental organizations, national red cross, and prisons in providing counseling, preparation simulation, to improve community preparedness in the face of disaster threat (Efendy et al, 2009).

In disaster preparedness many things can be done, among others, by doing a picture of past events, but it will be more effective and useful if people are given counseling about community preparedness to tsunami hazard. Because by doing counseling can improve skills and preparedness. Preparedness is a situation or situation that is expected to happen soon but may also not happen (National Agency for Disaster Management Year 2011).

Counseling about community preparedness to tsunami hazard is very important to be implemented by everyone, especially those around the coast. Training is every effort planned to influence, increase knowledge and change the behavior of others either individuals, groups or communities. Early counseling towards the positive must be implemented by everyone, especially about the handling of tsunami disaster. Community preparedness in disaster management is very important and can be obtained by following education or training, so that when disaster occurs when the community is ready to cope (Notoatmodjo, 2003). This research are using selecting template. This template has been tailored for output on the A4 paper size. Maintaining the integrity of the specifications. The head margin in this template measures proportionately more than is customary.
II. METHOD

Observational research, quasi-experimental design approach to one group pre test - post test design and research instrument was a questionnaire. The study population of all people on the beach Sidem Besuki Tulungagung subdistrict. The sample was taken by purposive sampling a number of 63 people. Data were analyzed by Wilcoxon Signed Ranks Test. The results of the study before the extension of the tsunami hazard preparedness, most respondents lack knowledge as much as 46 respondents (73%) and after counseling a good knowledge of most of the respondents were 41 respondents (65.1%).

Statistical test Wilcoxon Signed Ranks Test obtained $P$ Value $= 0.000 < 0.05$ so that $H_1$ is accepted, which means there is the effect of education on community preparedness to knowledge tsunami hazard in Sidem Beach Besuki Tulungagung subdistrict. Counseling is done by health workers as people who believed in the health field useful in increased knowledge of the coastal areas about the dangers of tsunamis. It is expected that the public has a good understanding of tsunami and tsunami disaster preparedness so they can save themselves when the tsunami disaster at any time.

III. RESULTS AND DISCUSSION

General Data

Knowledge of respondents to the tsunami hazard in Sidem Beach Besuki Tulungagung subdistrict before being given counseling

Table 1 The frequency distribution of respondents' knowledge of tsunami hazard in Sidem Beach Besuki Tulungagung subdistrict before being given counseling

<table>
<thead>
<tr>
<th>No.</th>
<th>Knowledge</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Less</td>
<td>46</td>
<td>73</td>
</tr>
<tr>
<td>2</td>
<td>Enough</td>
<td>7</td>
<td>11.1</td>
</tr>
<tr>
<td>3</td>
<td>Good</td>
<td>10</td>
<td>15.9</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>63</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Data processed in 2017

According to the table indicates that respondents' knowledge of the tsunami hazard in Sidem Beach Besuki Tulungagung subdistrict before being given counseling about the tsunami hazard preparedness, most respondents obtained knowledge is lacking as many as 46 respondents with a percentage of 73%.

Knowledge of respondents to the tsunami hazard in Sidem Beach Besuki Tulungagung subdistrict granted after counseling

Table 2 Knowledge of respondents to the tsunami hazard in Sidem Beach Besuki Tulungagung subdistrict granted after counseling

<table>
<thead>
<tr>
<th>No.</th>
<th>Knowledge</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Less</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>Enough</td>
<td>22</td>
<td>34.9</td>
</tr>
<tr>
<td>3</td>
<td>Good</td>
<td>41</td>
<td>65.1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>63</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Data processed in 2017
According to the table above can be explained that the knowledge of respondents to the tsunami hazard in Sidem Beach Besuki Tulungagung subdistrict given counseling after the tsunami hazard preparedness, most respondents obtained knowledge is good, that as much as 41 respondents with a percentage of 65.1%.

Effect of education on community preparedness against tsunami hazard knowledge.

Table 3 Results Statistics Wilcoxon signed rank test respondent knowledge to hazard tsunami before and after counseling

<table>
<thead>
<tr>
<th>Respondents knowledge</th>
<th>After Respondents Knowledge</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Good</td>
<td>F</td>
</tr>
<tr>
<td>Good</td>
<td>10</td>
<td>F</td>
</tr>
<tr>
<td>Enough</td>
<td>7</td>
<td>F</td>
</tr>
<tr>
<td>Less</td>
<td>24</td>
<td>F</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>F</td>
</tr>
</tbody>
</table>

ρ = 0,000  α = 0.05

Source: Data processed in 2017

Based on Table 3 obtained 7 (100%) which before sufficient knowledge extension, after extension entirely be good.

Wilcoxon signed rank statistical test known that the magnitude of the p value of 0.000. Significance relationships using \( p \)-value \(< 0.05\). Because the \( p \)-value 0.000 <0.05, then \( H_0 \) rejected and \( H_1 \) accepted which means that there is the effect of education on community preparedness to knowledge tsunami hazard in Sidem Beach Besuki Tulungagung subdistrict.

IV. REFERENCES


