



Relationship Between Self-Efficacy and Disaster Preparedness Landslide in The Community

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Abstract. *The impact of landslides causes a lack of confidence and confidence in the community, so that preparedness and self-efficacy are needed when faced with critical problems such as disasters. This study aims to determine the relationship between self-efficacy and community preparedness in dealing with landslides. Individuals who have high self-efficacy tend to feel confident and confident when preparing for disaster threats, even though the threat of the disaster is a threat. who bears the risk. The sample of this study was 177 respondents and the sampling technique used was purposive sampling. Data collection in the study used a questionnaire, namely preparedness and self-efficacy. Questionnaires were used to analyze demographic characteristics, preparedness, and self-efficacy. The results showed that the majority were average (92.7) adult age male (55.4%). The level of preparedness in the high category is (63.8%) and self-efficacy is (57.1%). Bivariate analysis showed that there was a significant relationship between preparedness and self-efficacy 0.000 ($p < 0.05$). The strength of the correlation coefficient in the criteria is sufficient ($r=0.380$). Researchers suggest that the community participation in landslide disaster preparation is supported by good self-efficacy for preparation for landslides in order to reduce disaster risks such as fatalities.*

Keywords: *landslide disaster; preparedness; self-efficacy*

1. INTRODUCTION

Natural disasters are events that threaten and disrupt life (Law of the Republic of Indonesia No. 24 of 2007). Floods, earthquakes, tsunamis, tornadoes, landslides, volcanic eruptions are examples of natural disasters. In 2011, it was stated that there were 173 countries in the world that were at high risk of experiencing disasters (World Risk Report, 2011). International disaster database stated that in 2018 there were 10,733 deaths due to natural disasters. The country with the highest number of natural disaster deaths was Indonesia with 4,535 people (Guha-Sapir, Vos & Below, 2019).

Indonesia during 2019 contributed 1,426 natural disasters (National Disaster Management Agency/ BNPB, 2020). The high number of natural disasters resulted in 375 fatalities, 1,402 injuries, and 2,594,849 people affected and displaced. This disaster caused damage to 99 health facilities, 378 educational facilities, 4,562 houses severely damaged, 4,149 moderately damaged and 18,144 lightly damaged (BNPB, 2020).

The results of the preliminary study of the researcher obtained data according to the West Bandung BPBD, the disaster that often occurs is a landslide disaster, while the landslide disaster occurred in West Bandung Regency (KBB). During 2020, there were 142 incidents that resulted in 771 fatalities, 2 people were injured, there was damage to buildings

with the criteria, 46 lightly damaged, 40 moderately damaged, 45 severely damaged, and one bridge damage (KBB, 2020).

During the interview, some residents also felt unsure and not confident in their preparations when a disaster occurs, and tended to feel forgetful and confused when a landslide occurred, which was previously certain and confident about what to do suddenly became unsure and not confident about what to do.

According to LIPI- UNESCO (2006) preparedness is an action that allows the government, organizations, communities, and individuals to be able to respond to a disaster situation quickly and appropriately. Disaster preparedness is a series of activities carried out to anticipate disasters through organizing and through appropriate and effective steps (Seyedin, Abbasi Dolatabadi, & Rajabifard, 2015). Landslide disaster preparedness is needed to reduce the risk of impact losses and casualties if a disaster occurs at any time, because landslide disasters cannot be predicted. This study plays a role in disaster management related to the level of community preparedness.

Self-efficacy has been identified as having a significant influence on behavior when faced with problems perceived as less controllable. Individuals who have self-efficacy low tend not to act because they consider themselves not competent to deal with disasters. Individuals who have self-efficacy high tend to be more prepared to face disasters, because self-efficacy increasing the number of plans developed by individuals and their persistence in implementing them (Herdwiyanti & Sudaryono, 2013). This study aims to determine the relationship between the ability self-efficacy with the preparedness of citizens in facing disasters. Self-efficacy what is meant is the ability and preparedness of residents in facing disasters, such as the community being less responsive, less alert, less understanding of what to do when a disaster occurs which increases the risk of increasing fatalities (Sutopo, 2018)

2. METHODS

The research method used is quantitative with a descriptive design, namely to analyze data by describing or depicting the data that has been collected. as it is without intending to make conclusions that apply to the public or generalizations (Sugiyono, 2013). The population of this study was the community in areas that have the potential to experience the risk of landslides totaling 291 heads of families. Sampling was carried out using the formula calculations lovin. The sample in this study amounted to 177 heads of families. The

exclusion criteria for this study were the elderly and children who did not understand landslide disaster preparedness

3. RESULTS

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Table 1 : Community Preparedness

Preparedness Level	Frequency	Percentage
Low	36	20.34%
Currently Prepared	28	15.82%
High	113	63.84%

Table 2: Self-Efficacy

Self-Efficacy Level	Frequency	Percentage
Low	76	42.9%
High	101	57.1%

Table 3: Relationship Between Self-Efficacy and Preparedness

Relationship	p-value
Self-Efficacy and Preparedness	0.000

4. DISCUSSION

Preparedness is an action that allows governments, organizations, communities, and individuals to be able to respond to a disaster situation quickly and appropriately. Preparedness actions are the preparation of disaster management plans, maintenance and training of personnel. Preparedness aims to ensure that the resources needed for disaster

response and events can be used effectively during a disaster and know how to use them (Dodon, 2013).

This preparedness assessment explains that the community's preparedness is more than half of the respondents (63.84%) with a high level of preparedness, this is because the community has received direction and information about preparedness for landslides and they have experienced it. The results of the study are in line with Sari's research (2014), which shows that disaster preparedness is in the high category with a frequency of 63.33%. The preparedness questionnaire shows that early warning is in the high category, this is because the community already understands that if heavy rain occurs, they must be alert and careful, especially those whose homes are close to steep land prone to landslides.

Community preparedness plays a role in reducing the risks caused by disasters. In this study, communities with medium and high preparedness were more numerous than communities with low preparedness. Self-efficacy is one of the individual's self-regulation abilities. Bandura defines self-efficacy as a person's belief in his/her ability to exercise some form of control over the person's own functioning and events in the environment. A society that has self-efficacy high, will have self-confidence in facing difficult problems and feel confident in their ability to solve the problems they face. Assessment of self-efficacy in society obtained 101 respondents (57.1%) with self-efficacy high. This is because the community has good abilities in acting, carrying out actions and achieving goals, as well as self-confidence in preparing to face critical problems such as landslides that occur.

The results of this study are in line with research conducted by Herdwiyananti & Sudaryono (2013) regarding differences in disaster preparedness in terms of level of self-efficacy in the area affected by the Mount Kelud disaster. The results of the study showed that (44.9%) with self-efficacy high. Questionnaire shows that the ability to overcome problems in the high category is because the community is able to overcome problems when faced with critical conditions such as the arrival of a disaster. The community is expected to have self-efficacy high. Self-efficacy high enables people to have self-confidence in facing problems and believe that they are capable of solving the problems they face, including in facing disaster. The height of society is seen by exploring knowledge about the landslide disaster itself.

Statistical results show that there is a significant relationship between self-efficacy with preparedness in society with values $p\text{-value} < 0.05$ (0.000) $t(0.380)$. The relationship between the two variables due to preparedness in the community with a high category which

includes knowledge, early warning, activity plans, resource mobilization. Self-efficacy high category means including the ability and self-confidence in carrying out an action and achieving good goals. The results of this study are in line with Syarif's research (2015) that there is a meaningful relationship between self-efficacy with preparedness in facing disasters with $p < 0,000$. Another study that is also in line is Herdwiyanthi (2013) who stated that there are differences in disaster preparedness in terms of the level of self-efficacy to residents in the disaster-affected areas of Mount Kelud with $p < 0,000$. This is reinforced by Spital's opinion (in Rinaldi 2005) that an optimistic attitude in facing a disaster can provide confidence in facing future disasters. The conclusion from this is that individuals who have self-efficacy high have higher preparedness than those who have self-efficacy low.

Self-efficacy as a person's belief in his or her ability to exercise some form of control over the person's own functioning from events in the environment. Self-efficacy is a personal (cognitive) factor, namely a person's belief that they can control a situation and produce positive results and self-efficacy will affect behavior. Natural disasters are often perceived as something uncontrollable. Self-efficacy identified as having a significant influence on behavior when faced with problems perceived as uncontrollable. Level self-efficacy influences the selection of activities based on individual thoughts with a sense of pessimism or optimism about the ability to survive challenges or uncontrolled situations. Individual beliefs about efficacy influence preparedness for potential threats. According to the researchers, the community in this study had preparedness and self-efficacy high because some people have received information about disaster preparedness and have experienced landslides so that they can increase their sense of optimism and self-confidence. Having a sense of optimism in facing a disaster can provide confidence in facing future disasters. The community is expected to be active in exploring their own abilities by often studying disaster-related knowledge in order to increase self-efficacy which will affect disaster preparedness. The results section summarizes the data collected for the study using descriptive statistics and reports the outcomes of relevant inferential statistical analyses (e.g., hypothesis tests) conducted on the data. Report the results in sufficient detail so that the reader can understand which statistical analyses were performed, why they were conducted, and to justify your conclusions. Mention all relevant results, including those that contradict the stated hypotheses.

There is no fixed formula for presenting the findings of a study. Therefore, we will first consider general guidelines and then focus on options for reporting descriptive statistics and the results of hypothesis tests. Present your findings as concisely as possible while

providing enough detail to justify your conclusions and enable the reader to understand exactly what you did in terms of data analysis and why. Figures and tables, detached from the main body of the manuscript, often allow for clear and concise presentation of findings.

5. CONCLUSION

The conclusion of the research results is that the average value of the community's level of preparedness is 63.8% in the high category, the average value of the level of preparedness is 63.8% in the low category, level of preparedness is 63.8% in the high category, the average value of the level of preparedself-efficacysociety, namely 57.1% in the high category and there is a significant relationship betweenself- efficacywith disaster preparedness. The correlation coefficient with a value of 0.380 means that the correlation coefficient value is in the category of having sufficient strength of relationship between 2 variables

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