Psychoeducation On Environmental Love And Landslide Disaster Preparedness Elementary School

Diah Sofiah[1], Nindya Ayu Safitri[2], Yogi Utomo[3], Catur Prasetianingsih[4]

[1,2,3,4] Program Studi Profesi Psikologi, Universitas 17 Agustus 1945 Surabaya

* Korespondensi: Diah Sofiah., Email: diahsofiah@untag-sby.ac.id

ABSTRACT

Landslides are one of the natural disasters that frequently occur in Indonesia. Each region in Indonesia has different levels of landslide hazards, which is why research is conducted to provide education to elementary school students about preparedness in facing landslide disasters, specifically in the village of Galengdowo, Jombang District, East Java. The subjects of the psychoeducation on environmental love and landslide preparedness are the 16 students of SDN 2 Galengdowo, precisely in the 5th grade. The method of this program is carried out by providing psychoeducation to develop various life skills, insights, and an understanding of environmental love, as well as the signs before a landslide occurs and the steps to anticipate landslide disasters using the methods of lecturing and small group discussions. The research results indicate an improvement in the understanding of 5th-grade elementary school students regarding these issues. This research shows that psychoeducation about the environment and natural disasters needs to be continuously provided to the community, especially to the younger generation, in order to create an environmentally conscious society that is prepared to face natural disasters.

Keyword : Elementary School ; Environmental Love ; Landslide ; Psychoeducation

INTRODUCTION

Geographically, East Java is considered to have the potential for various disasters such as floods, tsunamis, tornadoes, earthquakes, landslides, and more. Almost the entire region of East Java is prone to disasters. This province is threatened by tsunamis from the Indian Ocean, volcanic eruptions from seven active volcanoes, as well as annual floods from two major rivers, Bengawan Solo and Brantas. It is also known that Jombang Regency, as part of East Java, is considered to have complex disaster potential. The link between climate change and disasters in Jombang is evident. In recent years, various disaster threats have occurred frequently. According to records from Bakesbanglinmaspol, seven out of the 21 districts are indicated as prone to disasters, while according to Berita Jatim, Jombang Regency has a relatively high potential for disasters, with about 19 out of the 21 districts being prone to disasters, including flash floods, landslides, and tornadoes. Based on the Jombang District Disaster Management Agency (BPBD), there is a map showing the potential disasters, ranging from the possibility of widespread flooding in almost all districts to landslides.

Disasters are extreme events or phenomena, whether natural or human-induced, in which communities are unprepared to face them. In general, it is formulated that an event is considered a disaster when there is interaction with humans or when a hazard meets vulnerability (Sujarto, 2010). Natural disasters such as floods, tsunamis, tornadoes, earthquakes, and landslides Floods, landslides, tsunamis, volcanic eruptions, earthquakes, and droughts are widespread and frequent in developing

countries with middle-income economies, causing loss of life and significant damage to communities, infrastructure, and national economies. Ethical and humanitarian considerations require us to take action to protect human lives and prevent suffering (Carrara & Guzzetti, 1995).

Community and local government preparedness in facing disasters in Indonesia have not been well anticipated due to the lack of socialization from governmental or non-governmental institutions, exacerbating the conditions of affected communities (Dewi, 2020). The unpreparedness of communities in facing disasters is due to the limited efforts made by the government and other parties due to limited resources (Pramesti, 2011).

The lack of knowledge about possible disasters and the lack of socialization regarding mitigation efforts contribute to the high level of losses suffered by the general public when a natural disaster occurs. Therefore, early information about disaster potential and risks is one of the informational tools that can be used for basic disaster response education for the community (Damanik et al., 2012).

One of the impacts of landslides is the damage to infrastructure such as housing, roads, and agriculture (Yuniarta et al., 2015). The losses caused by landslides greatly affect the activities of residents in the surrounding areas when a landslide occurs. Landslides, therefore, it is important to address and be aware of the early signs of a landslide.

Disasters related to soil movement and landslides can occur due to the displacement of rock masses and soil on a slope or cliff with a certain inclination. Excessive gravitational forces, combined with topography, high rainfall intensity, and the lack of vegetation on a slope, cause the soil to break apart and result in landslides (Ariani, 2017). Landslides are closely related to natural conditions, and human activities also play a significant role in landslide disasters, such as the conversion of forest areas, which serve as water catchment areas, into plantations and settlements.

Disaster education for natural disasters is suitable for integration into the Elementary School curriculum, based on thematic and scientific approaches (Suarmika & Utama, 2017). Teachers and students play a crucial role in disaster preparedness and providing accurate knowledge about disasters to the community. From an early age, children should be taught the importance of disaster mitigation to develop resilient individuals capable of facing natural disasters in Indonesia. Previous research by Sumana, Christiawan, and Budiarta (2020) titled "Community Preparedness for Landslide Disasters in Sukawana Village" found that there was a low correlation (0.228) between community knowledge of landslide disasters and community preparedness for landslides. This has also been demonstrated by Arinata et al. (2022) in their research conducted at Ngijo 01 State Elementary School in Semarang with the title "The Relationship between Knowledge and Preparedness for Landslide Disasters among Students at Ngijo 01 State Elementary School in Semarang," which showed that the level of knowledge and preparedness for landslide disasters was categorized as moderate.

The learning process that teaches students to love the environment should be instilled from an early age as a foundation or basis in the learning process. This is to ensure that students have a better understanding of the environment right from the beginning of their education in the school environment. Additionally, the low interest in learning among children is often attributed to teachers solely relying on textbooks as the only source of learning. This is consistent with a study conducted by Suryani and Seto (2021), which stated that the planning and implementation of learning using videos related to proper waste disposal activities at TK Kartika Kodim Ende were categorized as good. The behavior of environmental love through proper waste disposal activities developed very well and experienced a 45% improvement, where it increased from 55% in cycle I to 100% in cycle II.

Based on the realities described in the current situation, it is considered essential to engage in community service activities in the form of psychoeducation regarding love for the environment and preparedness for landslide disasters. This includes providing systematic, structured, and didactic information about the environment and landslide disasters. One commonly developed model is the

information-based psychoeducation model, which provides knowledge to enhance group awareness of the environment and disasters (Srivastava, P & Pand, R., 2016).

The purpose of this psychoeducation is to provide socialization related to landslide disasters and evoke a sense of environmental love while identifying disaster preparedness in 5th-grade students of Galengdowo Public Elementary School 2. The influence of landslide psychoeducation on disaster preparedness is expected to help children understand what landslides are and how to love their own environment in order to reduce natural disasters caused by human actions.

METHOD

The steps taken as solutions to the problem are as follows:
- Providing psychoeducation about landslide disasters.
- Providing education about the causes and characteristics of landslides.
- Providing psychoeducation on environmental love to prevent landslides.
- Providing psychoeducation on preparedness in dealing with landslide disasters.

A. Understanding Psychoeducation

Rachmaniah (2012) explains that psychoeducation involves providing informational material and development to the community regarding popular psychology or specific information used to influence the psychosocial well-being of the community through education. However, it is important to consider the development and delivery methods of the information in psychoeducation.

B. Disaster Response

According to Law No. 24 of 2007, a disaster is an event or series of events that threaten and disrupt the lives and livelihoods of communities caused by natural and/or non-natural factors, including human factors, resulting in human casualties, environmental damage, property loss, and impact Psychological aspects. Disasters are events that disrupt and threaten the normal patterns of community life, causing significant losses to life, property, and social structures, requiring protection and assistance from external parties (Sriharini, 2010).

C. Environmental Love and Landslide Preparedness

Landslides occur due to the movement of soil as a result of the movement of masses of soil or rocks along slopes or outside slopes due to gravitational factors. The gravitational forces imposed on inclined soils exceed the shear strength that holds these soils in place. High water content makes the soil heavier, increasing the load and reducing its shear strength. Under these conditions, heavy rainfall or flooding is more likely to trigger landslides.

Landslides are caused by three main factors:

- Inherent factors: These include the depth of rock weathering, geological structure (tectonics and rock types), soil depth, soil texture, and soil permeability.
- External factors: These include slope inclination, the presence of steep walls, density of fractures, and land use.
- Triggers of landslides include heavy rainfall and earthquakes.
  The causes include steep slopes due to faults or folds, wetlands, thick and soft weathered soil, slope cutting, saturation due to rainfall, leakage of water channels, land conversion to wetlands, and continuous rainfall for two or more consecutive days.

The occurrence of landslides can be identified by the following symptoms:

- High rainfall.
- Prolonged rainfall.
- Cracks appearing on the soil on the upper slopes, such as on utility poles or leaning trees.
- Weathered mountain slopes.
- The presence of weathered materials, including red-colored soil (oxisol).
- Changes in mass weight, either due to seasonal variations or the conversion of the sloping land into agricultural fields.
- Differences in surface softness and the base of the land.
- The gravitational force dependent on the slope is critical if the slope is greater than 100%.
- Changes in shear resistance, for example, dry soil has a higher shear resistance compared to wet soil.

Human activities that can cause landslides include:
- Deforestation on mountain slopes.
- Creating fields and ponds on the upper slopes near settlements.
- Establishing settlements in steep cliff areas.
- Excavating below steep cliffs.
- Establishing settlements below steep cliffs.

D. Disaster Mitigation

Landslide disaster mitigation is an effort to reduce human casualties and/or property losses caused by events or a series of events resulting from natural, human, or combined factors, which lead to human suffering, property damage, infrastructure and public facility destruction, and disruption to community life and livelihood. Mitigation measures for landslides aim to minimize the impact of disasters. Therefore, early warning activities are crucial. These activities will be conducted for the students of Galengdowo Public Elementary School 2, specifically targeting 16 students in the 5th grade. The steps of the planned activities are as follows:

- Preparation phase:
  Surveying the location and obtaining permission from the school authorities to conduct the education program. Coordinating with the school regarding the timing and venue of the implementation. Preparing the educational materials to be delivered.
- Implementation phase:
  Conducting disaster response education activities. Administering questionnaires. Providing opportunities for questions and discussions.
- Evaluation phase:

  Analyzing the results achieved by the participants of the disaster response education. Creating a report on the activities conducted.

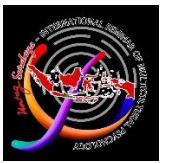Figure 1: Material Presentation Session

Figure 2: Material Presentation Session

Figure 3: Material Presentation Session

RESULTS

This activity was attended by 16 participants consisting of students from the 5th grade of SDN 2 Galengdowo. Prior to the educational session, participants were given a pre-test questionnaire. The psychoeducation session was conducted by Master's students of Professional Psychology from the 17th of August 1994 University in Surabaya. After the educational session, participants completed a post-test questionnaire. The results can be seen in the following table:
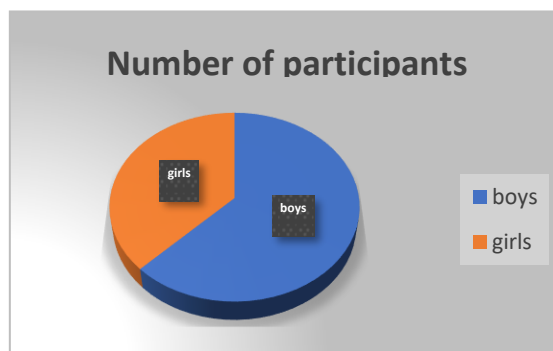

Figure 4: Number of Participants

Based on the results of the pre-test and post-test filled out by the students of SDN 2 Galengdowo to measure the level of knowledge, the following results were obtained:

Table 1: Results of Pre-Test for Psychoeducation on Environmental Conservation and Landslide Preparedness

Knowledge	Student Population	Student Population
Good (81-100)	10	62%
Well (61-80)	6	38%
Well (≤ 60)	0	0%
Total	16	100%

According to Table 1, the pre-test results show that there are 10 students, or 62%, in the "good" category, and 6 students, or 38%, in the "sufficient" category.

Table 2: Results of the Post-Test on Psychoeducation for Environmental Love and Landslide Preparedness.

Knowledge	Student Population	Student Population
Good (81-100)	16	100%
Well (61-80)	0	0%
Well (≤ 60)	0	0%
Total	16	100%

After receiving counseling, there was an increase in participants' understanding by 38%, or 6 students were able to answer the post-test questions in the good category. From the table above, it can be seen that before the education, there were a sufficient number of students (36%) with adequate knowledge, but after receiving the counseling, the number of students with sufficient knowledge decreased to 0%. It can be said that all participants have a good understanding of Environmental Love and Landslide Disaster Preparedness after being given psychoeducation.

This indicates a tendency for environmental love and landslide disaster preparedness to influence the knowledge and attitudes of the participants. This is evidenced by the increase in participants' understanding in answering the questionnaire in the good category, which increased from 62% to 100%, compared to before the students received counseling.

DISCUSSION

Psychoeducation counseling on environmental love and landslide disaster preparedness is a psychoeducational activity to increase information and development in students regarding information related to the psychology of environmental love and landslide disaster preparedness. The aim is for students to not only be aware and understand but also be able to take action in disaster mitigation, thus reducing the risk of disasters and loss of life.
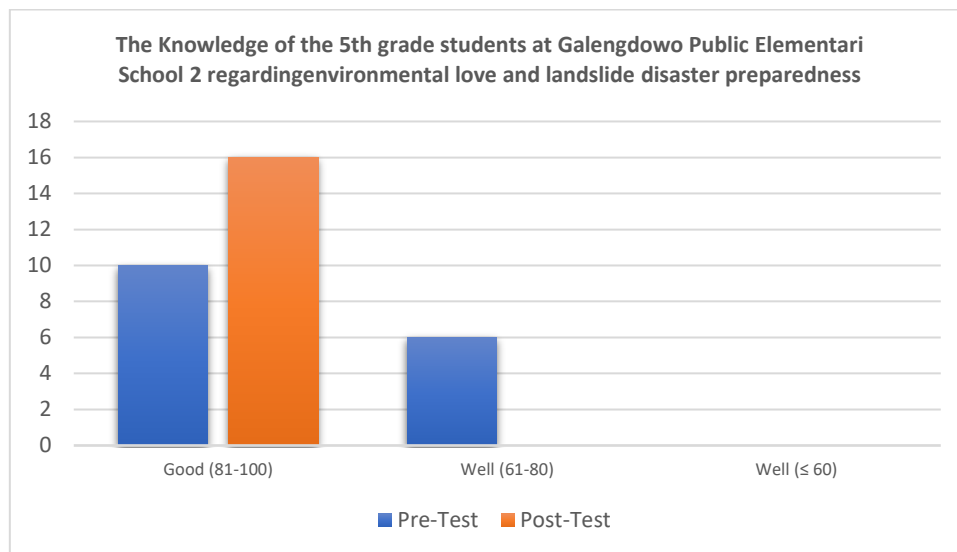
The Knowledge of the 5th grade students at Galengdowo Public Elementari School 2 regardingenvironmental love and landslide disaster preparedness

Figure 5: Levels of students' knowledge

From the implementation of this community empowerment activity, it is evident that psychoeducation about the importance of environmental conservation and natural disaster mitigation, such as landslides, is perceived as highly beneficial by the 5th-grade students of Galengdowo Public Elementary School 2 who participated in this activity. The following conclusions can be drawn:

1. The program, which includes lectures, small group discussions, as well as pre-tests and post-tests, successfully demonstrated an improvement in students' understanding of environmental conservation and landslide disaster mitigation.
2. Additionally, environmental psychoeducation in schools can help develop students' character of environmental care, which can prevent environmental damage and natural disasters.
3. The knowledge of the students is evidenced by the increase in participants' understanding in answering the questionnaire in the good category, which increased from 62% to 100%, compared to before the students received counseling.

Therefore, it is expected that psychoeducation about the environment and natural disasters, especially landslides, should be continuously provided to the community, especially to the younger generation, in order to create an environmentally conscious society that is prepared to face natural disasters.

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