

The Impact of Landslide in Tangkil Village Banaran Ponorogo *Incidents of Post Traumatic Stress Disorder*

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Abstract: Landslide is one of the natural disasters. In April 2017 Landslide happened in Ponorogo District, East java, Indonesia. The number of victims which affected this natural disaster was 145 people. One of the impact of natural disasters to the communities are psychological disturbance. Prolonged psychological trauma as an effect from a catastrophic event called Post Traumatic Stress Disorder (PTSD). PTSD is a mal-adaptive reaction which is similar to traumatic. This study aims to identify PTSD events and identify the signs and symptoms of PTSD after landslide in Banaran Village, Ponorogo District. Descriptive quantitative research design was used in this study. 50 of 57 victims of landslide in Tangkil Village, Banaran, Ponorogo, were participated in this study. Purposive sampling was applied to obtain a research sample. The Civillion questionnaire was used to collect the data. Data were analysed using descriptive statistics. The results of this study indicates that 50% of the landslide victims experience with PTSD. Further, the dominant signs and symptoms of PTSD in landslide victims suffer from fear feeling. Post-disaster PTSD incidents after natural disaster are incidents that cannot be avoided but can be mitigated. The readiness of Health Care Workers and Health Care Volunteers in providing activities such as counselling.

1 INTRODUCTION

Indonesia is a country which vulnerable to incidents natural disaster. This is because Indonesia lies at the meeting of three continents of the Eurasian plate, the Pacific plate and the Australian plate. The consequences of the collision between the plates, formed ocean trenches, folds, ridge and fracture in the archipelago, the distribution of volcanoes and distribution of earthquake sources. Thus Indonesia is prone to natural disasters such as volcanoes, floods, tsunamis and landslides.

One of the natural disasters that often hit several cities in Indonesia is a landslide. Ponorogo district, East Java is one of the cities often experience landslide disaster. Data from Ponorogo district statistics agency in 2013 showed 50.04% of 863,900 Ponorogo residents were vulnerable population. When the landslide occurred in 2017, the number of victims directly affected as many as 39 families and this is equivalent to 145 people. A total of 117 victims were able to save themselves, 28 victims were buried by landslides and the rest survived with

assistance. However, in order to avoid the increasing number of victims of the continued incidence of landslides in the area of the Banaran, 300 people from the area Banaran moved to the refugee camp.

In general, natural disasters have the impact of damage to the environment, loss of property, casualties and health problems to victims such as physical disorders and psychological disorders. Post traumatic stress disorder (PTSD) is a psychological disorder resulting from the trauma that arises after an event such as a disaster event. Trauma itself can occur due to several factors, namely biological factors, psychological factors, and social factors.

MPTSD is defined as an ongoing maladaptive reaction to a traumatic event (Nevid, 2005). According to Zlotnick et al, PTSD may last for months, years, or up to several decades and may arise after a few months or after exposure to traumatic events (Nevid, 2005). So the impact of the disaster experience can affect the life of each individual itself. According to Kinchin (2007) As many as 1.50% of the population experience Post Traumatic Stress Disorder (PTSD) within a period of

four years due to experience various peritiwa (Nirwana, 2012). Research results in the United States showed 15-43% of women and 14-43% of men experienced traumatic events, 3-15% of women and 1-6% of men experienced Post Traumatic Stress Disorder (PTSD).

In this case, the role of health care personnel is needed to detect signs and symptoms of PTSD post disaster on affected victims. Enforcement of PTSD diagnosis in victims can be done 3 - 6 months after the disaster is passed. Some ways can be done to overcome PTSD incident. One of them is to conduct post-disaster trauma counseling. Post-disaster trauma counseling will help victims in stabilizing their emotions (Nirvana, 2012). Implementation of counseling can help the victim accept and understand the reality. Counseling is able to activate the sympathetic nervous system that is part of the flight response. Classical conditioning occurs when a person experiencing a trauma event returns to the site of a trauma, an unconscious psychological reaction and a specific reflex response. From that the researchers interested to examine how the Post Genetic Post Traumatic Stress Disorder Landslide Disease on the villagers Tangkil Village Banaran Ponorogo who returned live to his own house.

2 LITERATURE REVIEW

Post-Traumatic Stress Disorder (PTSD) is an anxiety syndrome, an autonomic lability, and experiences flashbacks from a very painful experience after physical and emotional stress beyond the limits of ordinary people's resilience. In addition, PTSD can also be defined as a state of extreme physical and mental weakening that occurs after a person sees, hears, or experiences a traumatic event and / or life-threatening event (Sadock & Sadock, 2007).

According to Jiwo (2012) the symptoms of post-traumatic stress disorder are generally grouped into three types namely:

- (1) Intrusive memories, is a repetition of the trauma experience, shown by always remembering the sad events that have been experienced namely, flashback, excessive emotional and physical reactions triggered by memories of miserable events;
- (2) avoidance and numbing., includes avoidance of activities, places, thinking, feelings, or conversations related to trauma; loss of interest in all things; avoiding activities once enjoyed; feelings of alienation from others; shallow

emotion; memory impairment; difficulty maintaining; close relationships;

- (3) Symptoms of anxiety and increased emotional arousal include, increased sensitivity, indicated by insomnia, irritability / irritability, difficulty concentrating, excessive alertness, excessive response to everything.

The clinical feature of PTSD is to re-experience a painful event, a pattern of avoiding and shutting down emotions, as well as a fairly constantly maintained state of mind. This disorder may not arise for months or even years after the event. Mental status checks often reveal guilt, rejection, and derision. Patients also describe dissociative and panic attacks, even illusions and hallucinations can also be induced as a result of PTSD. Cognitive testing may indicate that the patient has a decreased memory and attention power. Associated symptoms may include aggression, violence, poor impulse control, depression and substance-related disorders (Sadock & Sadock, 2010).

3 METHODS

Descriptive quantitative research was used in order to explaining the existing phenomena by using numbers to explain the character of individuals or groups about the incidence of Post-Traumatic Stress Disorder (PTSD) (Syansudin & Damayanti, 2011). Purposive sampling was used to collect the data. The population in this study were 57 people in Tangkil village, Banaran, Ponorogo who directly experienced by landslide on April 2017 and went back from refugee's area to their home. 50 eligible respondents were participated in this study. The data were collect using Civillion questionnaire for measuring symptoms of PTSD. This questionnaire is developed by Weathers (1993).

After initial data collection, the researchers conducted a 5-day study. On the first day researcher got research permit from research permitting agency of Ponorogo district. On the second & third days of research, researcher met with representative of officer in Banaran sub-district office & Tangil Village Office. After identifying the eligible sample, the researchers distributed the inform consent and questionnaires as well. At the end, the data were analysed using descriptive statistic.

4 RESULTS AND DISCUSSIONS

On April 1, 2017 there has been a landslide disaster in the village Tangkil Banaran Ponorogo cause dozens of damaged houses, loss of property and the death of 28 souls. Landslide survivors have lost their homes, and property. Many victims are shocked and traumatized by the landslide. Trauma itself is the feeling of facing an event or a series of events that are harmful, both for the physical and psychological a person, which makes him no longer feel safe, making him feel helpless and sensitive in facing danger. The traumatic experience can cause mild outcomes, such as the victim to be doubted and fearful. In fact, fear of trauma often spreads to many things. If the trauma is not quickly handled properly will affect Post Traumatic stress disorder.

As described in a study conducted by Sumarno (2013) entitled "Post-Traumatic Psychological Impacts Due to Merapi eruption" described the post-traumatic psychological impact experienced by respondents due to too long lived in refugee posts so that residents feel saturated because there is no routine that if developing (monotonous distress), and the presence of new dwellings so it takes time for the adaptation process around the new environment. This then triggers the psychological impact of the disaster. Stressors or trauma events are a major cause in the development of Post-Traumatic Stress Disorder.

Based on the result of the research, it can be seen that the majority of landslide victims experience PTSD by 50% (25 respondents), because in Tangkil village many people at age 48-56 are vulnerable and it is known that female is the most with the percentage of 58% (29), while the male 42% (21). Education can also affect the knowledge of disaster victims in dealing with trauma caused by landslide disaster. Non-school respondents were 42% (21), so that respondents who had PTSD was the highest percentage.

Researchers assume that gender, age and education will affect a person's susceptibility in experiencing Post Traumatic Stress Disorder. At the age of children and the elderly will be more susceptible to experience PTSD than in adults. This is because in children who still have a sense of dependence on adults will feel shocked or sad prolonged if the adult who made the place dependent have died due to the natural disasters. The elderly also experiences impaired motion, cognitive, sensory, and social can affect the process of adaptation and ability of the elderly it becomes very sensitive, depression, sleep disorders and trauma

caused by natural disasters. The sex of the victim will also affect a person experiencing PTSD because the ability of female coping mechanisms is lower than that of men. Education may affect PTSD due to knowledge in coping mechanisms and inadequate coping methods in dealing with trauma caused by natural disasters.

The researchers' assumptions are reinforced by the Weems (2007) theory which explains that risk factors that cause a person to experience PTSD include age, sex and education. PTSD can occur in all age groups but children and old age are the age group that is more susceptible to PTSD. Children have special needs and vulnerabilities when compared with adults, because there is still a sense of dependence with others, emerging physical and intellectual abilities, and lack of life experience in solving problems so as to influence the development of one's personality. And in the gender it is explained that women will have a greater risk of developing PTSD than men. This is because, the likelihood of serotonin synthesis in women. Serotonin synthesis will read chemical messages in neurotransmitters in the brain that will provide communicable between brain nerve cells. Low serotonin will affect the susceptibility of depression to a person. While the lack of a person's education level will affect the high number of incidents PTSD

5 SUGGESTION

5.1 For Further Researchers

With the existence of this research, it is hoped that further research can be developed in qualitative research by describing it. So that it can be more detailed about the incidence of landslide victims.

5.2 For Health Officers

The role of health workers can be expected to improve services specially to deal with the psychological consequences of trauma caused by disasters by conducting counseling or counseling about trauma prevention. Forming a program to handle a disaster and disaster management is needed in this case.

5.3 For the Community

The community can handle or deal with trauma so as not to experience prolonged stress and trauma, namely Post Traumatic Stress Disorder.

5.4 For Community Nursing Professionals

This research can be used as a basis for counseling or counseling for disaster victims who experience trauma or stress due to a disaster so that the trauma or stress they experience can be handled properly so as not to experience trauma or prolonged stress which is commonly called Post Traumatic stress disorder. In community nursing can also be formed cadres for disaster management.

Guha-sapir, D., Hoyois, P., & Below, R. (2014). Annual Disaster Statistical Review 2014 The numbers and trends.

Habib, M., Bangsa, G., Fatkullah, M., Meytasari, Y., & Sari, R. (2012). Keefektifan PUSKESMAS bagi Masyarakat Indonesia.

IDEP. (2007). Panduan Umum Penanggulangan Bencana Berbasis Masyarakat.

6 CONSLUSION

The majority of symptoms affect biological factors by 47% of respondents who answered very much (5) in the questionnaire, namely the feeling of fear of 9 signs and symptoms.

Most of the victims of landslides suffered Post Traumatic Stress Disorder by 50% (25 people) from 100% (50 people) in Tangkil Hamlet, Banaran Village, Ponorogo.

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REFERENCES

- Ahern, M., Kovats, R. S., Wilkinson, P., Few, R., & Matthies, F. (2005). Global Health Impacts of Floods : Epidemiologic Evidence. *Epidemiologic Reviews*, 27, 36–46. doi:10.1093/epirev/mxi004
- Benedict, K., & Park, B. J. (2015). Invasive Fungal Infections after Natural Disasters. *Emerging Infectious Disease*, 20(3), 349–355.
- BNPB. (2012). *Buku Saku Tanggap Tangkas Bencana*.
- BNPB. (2012). *Pedoman Umum Desa/Kelurahan Tangguh Bencana*.
- BNPB. (2015). *Rencana Nasional Penanggulangan Bencana*.
- Depkes. (2001). *Pedoman Penanggulangan Masalah Kesehatan akibat Kedaruratan Kompleks*.
- Gosselin, R. A. (2005). War Injuries , Trauma , and Disaster Relief. *Techniques in Orthopedics*, 20(2), 97–108.