

Lived Experience of Survivors during Semeru's Mount Eruption in East Java, Indonesia

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ABSTRACT

To date, there is no studies have examined the response to loss and grief in disasters because the impact of disasters is seen in the form of psychopathology. Researching grief can provide pivotal information for developing tailored instruments and interventions especially in nursing. This study explored various loss and grief experiences and coping strategies experienced by survivors of the eruption of Mount Semeru in East Java, Indonesia. This study used a qualitative approach with phenomenological methods. There were six informants in this study drawn from various professions and survivors who fled both in refugee camps and in residents' homes. There are three categories of grief responses: denial, anger, and acceptance. Coping strategies focus on emotions and problem-solving. The grieving response experienced by respondents does not have to go through the phases of denial, anger, bargaining, depression, and acceptance. Conclusion: The result of the study shows that differences in grieving responses are influenced by the background of the events experienced, previous grieving experiences, gender, culture, and others. Most of the communities affected by the eruption of Mount Semeru have low coping mechanisms.

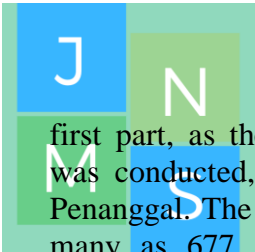
Keywords: Disaster; Grief; Lost; Volcanic Eruption

INTRODUCTION

The danger posed by a catastrophic volcanic eruption does not disappear even after the volcano erupts. Volcanic activity can produce sudden bursts of gas from the crater. Soil structure is altered drastically by volcanic flows. The secondary volcanic hazards result in landslides and mud. Debris flows can occur and in some cases it can last years or centuries after the event. One of the long-term impacts of volcanic eruptions is environmental damage in the local area

(Feldman JN & Tilling RI, 2011; Witham, 2005). These disasters can cause psychological stress, especially in vulnerable populations (Rodriguez-Rabassa et al., 2020).

The eruption of the Semeru Lumajang Volcano that occurred on December 4, 2021, caused extensive environmental damage; some of the hamlets disappeared under the volcanic ash. The affected areas are divided into two parts, namely the eastern and western regions. The



first part, as the place where this research was conducted, precisely in the village of Penanggal. The number of survivors was as many as 677 who fled. This number is divided into several refugee locations. The first, Village Hall has 49 survivors, at the old health center as 104, in the field as many as 198, SDN Penanggal 01 as many as 48, and at residents' homes as many as 278. Based on the mental and psychological assessment, it was found the signs and symptoms of acute stress on the refugee. However, the identification of the psychological problems of the survivors needs further review (Era Catur Prasetya et al., 2021)

Loss of property and loved ones results in long-suffering for the survivor. So far, no research examined individuals who grieve because of disasters in terms of psychopathology (Lenferink et al., 2017). Identifying bereavement can provide pivotal information for developing tailored instruments and interventions (Rosner et al., 2011). Most studies used quantitative methods with standardized scales for assessing coping. Few studies have used in-depth methods to explore in detail how disaster survivors manage and cope (Ekanayake et al., 2013)

Kubler-Ross proposes a five-stage grief model, consisting of denial, anger, bargaining, depression, and acceptance, as a framework to enable bereaved people to identify their feelings and learn to live with the grief. Most grieving people may have temporary difficulties dealing with their grief. However, over time there is self-healing. They can recover on their own. Whereas some grieving people are unable to recover from the sadness or traumatic event, even after several months (R.-R. Wang & Wang, 2021). According to Roy's adaptation model, adaptation is assessed and measured in physical (physiologic) and psychosocial (self-concept, role function, and interdependence). The person can adapt by using coping mechanisms in dealing with biopsychosocial changes. Roy's adaptation model is one of the nursing theories that

focus on a person's ability to adapt to the stressors they face with the result that it is hoped that someone will be able to improve health by maintaining adaptive behavior and changing maladaptive behavior (Alligood, 2014).

OBJECTIVE

This study explored various grieving experiences and coping strategies experienced by survivors of the eruption of Mount Semeru, Indonesia.

METHOD

This study used a qualitative approach with phenomenological methods. The phenomenological method aims to study, develop, explore, or find knowledge through the scientific method. In addition to explaining some things that are meaningful to humans, it can also be given meaning (Polit & Beck, 2010)


Informant

There were 6 informants in this study taken from various professions and survivors who fled either in refugee camps or in residents' homes. General information about participants can be seen in table 1.

Data Collection

Data were collected from February to April 2022 using in-depth semi-structured individual interviews. The interview guide used was compiled from research objectives that have been adapted to the Roy and Kubler Ross Adaptation Model. Interviews were conducted face-to-face.

Data collection tools include tape recorders, field notes, and interview guidelines that were prepared according to the research objectives. The interview process started with a few open-ended questions, such as "Can you tell us about your experience since the first eruption of Mount Semeru?" The interview lasts about 30-45 minutes. The interview process was conducted in two places, namely in the refugee camp and the residents' shelter house. We stopped the data collection process after we listened to information in accordance with the objectives of this



research, and we considered the data we produced to have reached saturation. After listening to the results of the interviewing and reporting them verbatim, the researchers and participants verified the written results to determine whether the interview results were appropriate.

Data Analysis

Interview data were analyzed using Flick & Uwe (2014). Practical steps of analyzing and representing interview data were carried out. Data analysis began with reducing the data to find and examine attractive phenomena. In this phase, the interviews were transcribed, then the data was read and reread. The next phase was the reorganization, classification, and categorization of data in which the researcher generates statements about the topic by rearranging and rearranging data, codes, categories, and stories. The last stage was interpreting and writing the findings. In this phase, the researcher considers assertions and propositions based on previous research and theories to develop arguments. The researcher develops a story that conveys the main idea developed in the data analysis and presents data quotes or stories to support the statement.

RESULT

Based on the table 1, the majority of informants are female as many as 4 informants. Only 1 unmarried and widowed out of 7 informants. The oldest age is 56 years old. The majority of informants' workers are farmers. The majority of the informants we interviewed were in refugee camps because their homes had been damaged and could no longer be occupied. Except for 2 informants who chose to stay temporarily at their relatives' houses.

Theme 1. Grief Response

A grief response is a response, behavior, or attitude towards particular problems related to the individual's psychological state. In this sub-theme, five categories were identified, namely 1) denial, 2) anger, 3) bargaining, 4) depression, and 5) acceptance.

1) Denial

Denial is the first stage of the Kubler-Ross loss response stage. The initial reactions of residents when they first experienced a disaster showed various expressions in response to the disaster they had received. The various responses shown by the participants in this study when they first experienced a disaster included disbelief, confusion, shock, confusion, and denying reality. The disclaimer category is supported by the following participant statements:

"Yes, Miss. It was just not volcanic from top to bottom, it was volcanic from above. This was terrible and had never happened like this. (p1)

"If it had hit the ashes. Maybe I died. Heavy rain but not water but ash. Because my mother was congested" (p1)

"I didn't know it suddenly happened. If I knew, I'll run away first" (p2)

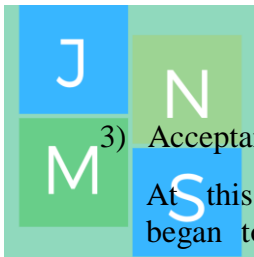
2) Anger

In the angry stage, survivors will feel that everything is not right, be disappointed with the fate that God has given them, blame themselves, and refuse to do any activities. This category is supported by the following participant statements:

"Usually I sold vegetables around, after the eruption I did not sell them." (p3)

"Before the eruption, I stayed at home. Father taught the mosque. I cooked in the kitchen. After the eruption, I cannot do my daily habits. (p4)"

"Before, I kept the shop. Now I don't have a job." (p6)



3) Acceptance

At this stage, women survivors began to accept the reality of the situation they are experiencing, try to be more resigned to the situation, and try to motivate themselves by being optimistic. Self-acceptance can direct participants to think positively. Participants built a commitment to do things that can support their lives. Participants' optimistic attitude towards life has a good impact on their mental health. This category is supported by the following participant statements:

"If the problem of need is minimal. I accept help from other people...(p1)"

"Yes, that's the government who said Maybe God wants something else. So I can go back there again. (p1)

Now my husband is a farmer, Ms. how do I ask for it or not (no) ask but it's given. (p1)

Theme 2. Coping Strategy

Changes in appearance and physical condition will cause survivors to experience stressors. As a result, a coping strategy is needed to deal with these stressors. This theme is defined by two subthemes, namely coping focuses on emotions, and the second is coping which focuses on problem-solving.

1) The coping focuses on emotions

Coping strategies that focus on emotions include denial, self-blame, and withdrawal from social interactions. Denial is one of the accepted responses to conditions expressed by participants that are contrary to reality.

"My sleep is irregular and unfulfilled. Sometimes I can sleep, sometimes I can't." (p3)

"I am grateful. You can still eat. Only the first time, I don't want to eat." (p4)

" I have known the volunteers here for a long time. Neighbors here are on good terms. We cry to each other in the refugee camp and talk together." (p4)

" I'm here sleeping, but no activity."(p6)

2) The coping focuses on problem-solving

Problem-focused coping strategies fall into the adaptive category. Participants can cope with the problems that they face in a variety of ways, including increasing spirituality, relaxing, and sharing experiences with other patients.

" First, there was no activity. I only ate and slept, eat sleep so. I went home to rest". (p1)

" If there was an activity, I will join. Customize activities" (p2)

" Yes, there are still relatives with neighbors. The relationship is still good, chat, if the village people know everyone knows" (p2)

" Telling story each other" (p2)

" in the afternoon, I went home. I was only here to clean because the volunteers didn't clean it" (p3)

" I am at home repairing the part of the house that was destroyed by father (p3)

" in the morning until the afternoon at 2 or 3 at home, I am chatting with relatives who also came home. (p5)



" with neighbors keep in touch, Kajar Kuning and Cobokan village like all family. We Clean the house in the morning (p5)

" Thank God for the relationship with the other refugees is good, also with all families, give each other." (p6)

DISCUSSION

Theme 1. Grief Response

Natural disasters and human-caused disasters are common events that often occur worldwide (X. Wang et al., 2021) which not only cause death and economic loss but also leave severe negative emotions for those who experience them (Bond et al., 2021; Huang & Gan, 2018; Kannis-Dymand et al., 2021; Tang et al., 2017). Most of the affected population has various psychological reactions. It is estimated that 15-20% will experience mild or moderate mental disorders, such as mild and moderate depression, anxiety, or post-traumatic stress disorder (PTSD). While 3-4% will suffer from severe disorders such as psychosis, major depression, and a very disabling form of an anxiety disorder (Sherchan et al., 2017). The results of this study showed that informant have experienced grief and loss of loved ones and their property due to the volcanic eruption.

Grieving is a normal response and generally occurs because of sadness, hurt, or confusion that arises due to the loss of someone or something important to the individual, grieving can also occur in individuals who are in crisis or disaster situations (Samhsa, 2017). Grief reactions will appear in various symptoms as expressed by several participants shortly after the eruption disaster ended. Most of the participants felt shocked and disbelief because of the sudden calamity. Appearing worried about various things, had trouble sleeping, and lost their appetite. This is in line with research conducted by Pop-Jordanova (2021) that the reactions

commonly described to sadness are: shock, disbelief or denial, high levels of anxiety, distress, anger, sadness, insomnia, and loss of appetite.

Loss response will be different because loss is very individual, so each individual may go through the grieving process in different ways and stages. Differences in grieving responses can be influenced by the background of the events experienced, previous grieving experiences, gender, culture, and others. In addition to grieving reactions, individuals also go through the grieving process with different stages, in general, there are several stages of grieving, namely denial, anger, bargaining, depression, and acceptance (Hakimi, 2020).

The results of this study indicate that all participants did not go through all the stages of grieving, which means that several stages were not passed. Even one of the participants experienced more than one stage of grieving at the same time or overlap. Kubler Ross states that "these stages do not replace each other but can exist side by side and overlap at times" further conveying that the patient does not have to follow the classic pattern from the denial stage to the anger stage, bargaining, depression and acceptance. Most of patients have shown two or three stages simultaneously and these do not always occur in the same order (Corr, 2020).

The result of the interviews found the stages of grieving do not overlaps. The first participant (p1) was in the denial stage and at the same time expresses his acceptance of the current situation. The second (p2) was in the denial and anger stage. The overlap and the existence of missed stages of grieving can be influenced by similar grieving experiences caused by the same disaster situation so that each participant can quickly get used to the existing situation and conditions.

The results of this study also reveal that the experience of grieving survivors only goes through three stages: denial, anger, and acceptance.



1. Denial

DerSarkissian, (2020) stated that when you first experienced a loss or were in a crisis, it was normal to think that “this could not have happened”, “if...” and other forms of denial related to the disaster that occurred. This is illustrated in the expressions of Participants 1 and 2 (p1 & 2) stating;

” if I hit the ashes I might die. Heavy rain but not water but ash. Because my mother is congested” (p1)

” I didn't know it suddenly happened. If I knew, I'll run away (p2)”

Participants 1 and 2 in this denial phase simultaneously focused on denial related to things that should have been done/experienced. However, they were not done at that time and also denied current conditions by revealing related to living conditions and daily activities before the disaster struck, as illustrated in the expression;

”..... it never happened to a house like this. (p1)

” I was usually at home since morning I was not home going to work, I was a hoe and my father was mining.” (p2).

2. Anger

At the angry stage, p3, p4, and p6 expressed their frustration at not being able to carry out daily activities to meet their daily needs due to the eruption. Whereas p2 expressed anger because they were frustrated with the same situation every day through the expression “Tired and stuffy. In the morning, I usually go to work to hoe. While my father mines” (p2). DerSarkissian, (2020), when an individual realizes the reality of what is happening, they are faced with the pain of the loss they have experienced. So this creates a feeling of frustration and helplessness that triggers anger towards the lives of others and higher powers.

3. Acceptance

The results of the interview show that the acceptance stage is only experienced by p1 with various forms of acceptance of the current situation, namely;

“....., I accept all help from people,..... (p1)”

“ Yes, that's the government who said Maybe God wants something else. So I can go back there again. (p1)

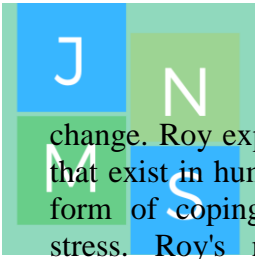
”..... Yes, how do you ask, don't you ask for it but it's given all the time.” (p1)

The first participant (p1) expressed acceptance because he realized that the situation that had already occurred could not be changed. So she chose to adapt and get used to the current conditions. In the final stage of grieving, the individual will accept the reality and the loss experienced because it is impossible to change. Sad feelings persist but decide to keep moving forward (DerSarkissian, 2020).

Theme 2 Coping Strategy

The research was obtained from interviews with the eruption of Mount Semeru survivors. There was a denial response to the people affected by the eruption. Some said it was difficult to sleep, often cries, and does not feel at home in the current conditions. A person can adapt by using coping mechanisms in dealing with biopsychosocial changes. Calista Roy's adaptation theory describes a nursing model in which an individual can improve health status by maintaining adaptive behavior and changing maladaptive behavior (Alligood, 2014)

The ability to overcome problems and recover from a disaster is determined by several factors such as the disaster period, pre-disaster period, and post-disaster period (Srivastava, 2010). Coping mechanisms are individual efforts to cope with the stress they face, solve problems, and adapt to



change. Roy explained that the mechanisms that exist in humans are implemented in the form of coping behavior in dealing with stress. Roy's model focuses on inputs, control processes, effectors, and outputs. Roy also explained that there is a psychological response to someone, namely the Denial, Anger, and Acceptance stages (Hamid & Kusman, 2017)

Post-eruption societies experience different levels of stress. Stress conditions will cause the body to experience health problems. Stress is a psychological disorder that often occurs during disasters. A crucial role in dealing with huge disasters is personal strength, religious belief, and external support. In a disaster, having sadness must be a form of shared sadness. Where respect and love for people who experience disaster or death are shown outwardly. As a result, loss, and grief are shared and properly managed in a community. Eventually, it will be healed by own self.

Coping strategies depend on available resources, information, and connections. Given the fact that disasters exacerbate the situation of vulnerability. Increasing the adaptive capacity of individuals and communities can offer a way out of the poverty impacts of disasters. However, coping strategies do not always provide a way out of the consequences of disasters (Daramola et al., 2016; Ghorpade, 2012).

CONCLUSION


Based on the results of the study, it can be concluded that the grieving response experienced by respondents does not have to go through the phases of denial, anger, bargaining, depression, and acceptance. This shows that differences in grieving responses are influenced by the background of the events experienced, previous grieving experiences, gender, culture, and others. Most of the communities affected by the eruption of Mount Semeru have low coping mechanisms.

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Table 1. General information of participants

Informant	Sex	Marital Status	Age	Job	Shelter	Kind of Loss
P1	Female	Married, 3 children	56	Farmer	Stay at home people	House, Job, Pet
P2	Male	Married, 2 children	48	Farmer and sand mine	In Refuge	House, Job, and Uncle
P3	Female	Married, 2 children	50	Selling vegetables around wifehouse	In Refuge	House, Job
P4	Female	Married, 1 child	54	Random Job	In Refuge	House
P5	Male	Not Married	49	Shop	In House	House, Job
P6	Female	Widow, 1 child	45		In Refuge	House, job and Uncle