

*Connectedness between Individual, Community and Environmental Factors in the  
Process of Recovery People Affected Merapi Eruption in 2010*

Mellia Christia\*<sup>1</sup>, Arnfinn Helleve\*<sup>2</sup>

\*<sup>1</sup>Universitas Indonesia, Indonesia, \*<sup>2</sup>University of Oslo, Norway

0464

The Asian Conference on Psychology & the Behavioral Sciences 2013

Official Conference Proceedings 2013

Abstract

The process of recovery of people after exposed by natural disaster usually always seen as individual process. However, recently many research in disaster related found that social, including environmental factors, also influence not only the process of recovery but also how people understand the disaster that they experienced. Indonesia as a country that vulnerable to disaster, it is important to explore the role of connectedness between individual, community and environment in the process of recovery after disaster. This research objective is to determine how is the role of connectivity between people, community and environment in the process of recovery aftermath situation. Qualitative methods with focus group discussion and in-depth interview were the methods to explore people experience with disaster and the influences of community and their relatedness with their environment influence their condition after Merapi eruption. Participant's observation will be supplementary methods that complete the data that gathered from interview and focus group discussion. This research shows the sense of togetherness is very pronounced in comparison with individuality. Responses explain that sense of togetherness was particularly apparent from the public response to disasters; the consequences of the disaster and how social support from the community probably becomes supporting factor for the recovery process after a disaster. Family has important role as one of social support that help people handle disaster situation and cope with its effect. When situation of disaster was unpredictable and beyond human control, being together with family give people sense of security and power, that make people continue living and have hope for the future. Almost all the informants showed their relatedness with mount Merapi in the form of personification (a term or a specific name), the belief of Merapi as part of the "family", and the belief that human behavior towards the environment around Merapi will result in an impact on their lives.

Keywords: Connectedness, disaster, recovery process, people affected disaster, Merapi

iafor  
The International Academic Forum  
[www.iafor.org](http://www.iafor.org)

## 1. Introduction

Disaster is an event that unpredictable, life threatening, and change stable condition of the affected people. Frequency and numbers of people affected by disaster have increased markedly over the last 100 years (Kirmayer, Kienzler, Hamid Afana, & Pedersen, 2010). However, the proportion of people surviving has also arisen which means there are many more survivors who may be affected psychologically by traumatic events.

Bereavement, losing of family and friends, losing of home, jobless, poverty, malnutrition, health risk behavior and psychological disorder are some of the negative impact of disaster to the victim that influence overall mental health condition of the victim. The effect of disaster may be rekindled by new experiences that remind the person of the past traumatic event (Ursano, Fullerton, & Weisaeth, 2007). The impact of disaster is not only to individual or the community that exposed to disaster. The disaster have health impacts at multi layer, individual (physiological and psychological), family, community societal, international and global (Kirmayer et al., 2010). The social impacts of disaster depend on the magnitude, the level of pre-existing infrastructure, the nature of events (human caused or not), response of government, larger society and international response. The impacts of disaster usually more severe in developing countries and it were regarding lack of resources and facilities to respond adequately.

Individual response to traumatic events and the impact of it cannot be separated from socio-cultural influences and the environment in which one lives. Culture influences the individual and collective experience of trauma at many levels: the perception and interpretation of events as threatening or traumatic; modes of expressing and explaining distress; coping responses and adaptation; pattern of help-seeking and treatment response (Kirmayer et al., 2010). Therefore cultural gives meaning to traumatic event itself that make individual, families and communities to make sense of their experience.

Indonesia is located between the continents, Asia and Australia, and flanked by two oceans, Indian and Oceania, making Indonesia vulnerable to disasters. Indonesia's Ministry of Health Crisis Centre (PPK) states there is an increase in the frequency of catastrophic events in Indonesia since 2005. In addition, Indonesia's Disaster Management Agency (BNPB) noted that most of area in Indonesia vulnerable to disaster, which most of them are earthquakes, tsunamis, floods and volcanoes eruption. The disaster was not only in large scale but also in small scale with a high frequency makes the people of Indonesia "living" with the disaster.

As mentioned above, every disaster that happened in community will influence people perception about world and there live, which then implied in there coping strategy and growth after disaster. There are some factors that contribute to that condition, regarding the characteristic of the events itself, for example frequency, magnitude, type of infrastructure, or other factor like psychological factor of individual and community affected by disaster and also type of respond from community, government and international community. Cultural and social context

are another important factors that should be carefully consider in influencing impact of disaster. Research about people of Indonesia affected by disaster will be interesting and important to do, since there will be different experiences and meaning of the event from this population. Universality and specific cultural factor of posttraumatic growth after disaster will be explored regarding their influence in develop and implement intervention and preparation disaster program. People wellbeing and better health condition are the underlying objective to achieve.

This study objective is to explore experiences of people affected disaster in Indonesia and process of growth and recovery after disaster. Result of this study is expected to be the basis for the development of guideline in disaster intervention in Indonesia, which adapts the local cultural context. Intervention program that develop with appropriate cultural context is expected to improve community well being, especially the affected and the Indonesian people in general.

## **2. Method**

This research was conducted in Krinjing Village, in Magelang District, Central Java Province, Indonesia. Krinjing Village is one of the villages that directly affected by volcanic eruption of mount Merapi in October – November 2010. This village is located in the western part of Merapi, 5.2 kilometers from the summit. This study employed qualitative research method with a phenomenology approach, with semi-structure interview and group discussion as data collection methods. The study population included men and women who were affected by Mount Merapi Eruption in 2010. Male and female with different background in age, education and religion were selected in order to provide the opportunity to share different experiences and reflection in the eruption situation. The focus group discussions were conducted to develop interview content, inclusion criteria for interview participant and in ongoing discussions in analyzing the result.

A purposive sampling of 5 females and 11 males were interviewed. All participants were between the ages of 18 – 72 years. Four focus group discussions were conducted in groups of 5: group of elderly people, group of adult male, group of adult female, and group of young people; with the total participation of 21 people. Participants along with their various background and experiences were purposively selected based on information that gathered from the head of village, community leaders, focus group discussion and other participants.

The data collection process was conducted between Augusts – December 2012 (4 months). The researcher was living in the village, stayed over in one of villager residence. Through this process, the researcher was participating in every activity of the villager, and these provide contextual understanding about the social and cultural aspect of the village for the researcher.

## **3. Result**

This research shows the sense of togetherness is very pronounced in comparison with individuality. Responses explain that sense of togetherness was particularly apparent from the public response to disasters; the consequences of the disaster and how social

support from the community probably becomes supporting factor for the recovery process after a disaster.

The majority of informants stated that being with family is important at the time of disaster. Some informants chose to evacuate to a location where their relatives' lives safely from Merapi eruption, despite the available refugee camps provided by the government. It shows that family has important role as one of social support that help people handle disaster situation and cope with its effect. When situation of disaster was unpredictable and beyond human control, being together with family give people sense of security and power, that make people continue living and have hope for the future.

Solidarity expressed by the informants not only related to the family, but also with other fellow villagers. According to some informants, during the period of preparation before the eruption, the community held a joint activity such as prayer, or even patrolling to monitor the activities of Mount Merapi. This is done since a few years ago and people already familiar with this activity. In addition, people also form a forum for disaster relief as a preparation for the Merapi eruption.

Other finding is villagers realize as people who live in proximity of volcanic mountain, they have possibilities to experience volcanic eruption. As people understand their responsibilities, collaboration and togetherness are very important to prepare them handle complex situation. Generally, collective culture creates togetherness with other people in the community as one important factor that support people in coping and recovering from disaster situation (Weiss and Berger, 2010). Previous studies in Japan identified in Japanese case relates to a sense of connection to community and mankind (Weiss and Berger, 2010). Response to disasters and catastrophic impact on the informants in this study were largely led to the community rather than individual level. Most informants' perceived stronger sense of togetherness in the community, especially when they were together, back in the village and rebuild lives after eruption. Cooperation, one of the value that already exist in society, is more strongly felt; in addition to increasing care of others and the spirit of mutual help.

Sense of togetherness is one of the community values that already held by community for some years. After Merapi eruption this value becomes stronger since people feel the importance of being together as survivor of eruption. They have same experience by living in the evacuation camp, eating and sleeping in the same condition. Solidarity is created in difficult situation by helping each other in the process of recovery after disaster. Furthermore, togetherness also gives people some chances to share their problems and discuss how to solve it. Togetherness gives them therapeutic condition that benefited them as member of community. Almost all the informants showed their relatedness with mount Merapi in the form of personification (a term or a specific name), the belief of Merapi as part of the "family", and the belief that human behavior towards the environment around Merapi will result in an impact on their lives. Those beliefs describe in some informants opinion below.

#### **4. Discussion**

Connectedness between individual, community and environment in this research can

be seen from different perspective according to the participants. First, connectedness is the form of togetherness as the positive impact of disaster. The growing strength of togetherness as a community is one of the positive impact felt by the participants in this study. This finding also found in PTG research in Japan that mentioned about the important of social network and family togetherness (Weiss & Berger, 2010). In this study the sense of togetherness also relates community with their nature and Merapi Mountain.

Second, increased sense of togetherness among the villagers and concern for others is a form of dimension relating to others in posttraumatic growth concept. Value of unity and mutual assistance is essentially the value that is already owned by the village community since the beginning of Krinjing village. But after the Merapi eruption, these values are more strongly felt and reflected in their daily behavior. The values of togetherness and mutual help are seen at the time they returned from the evacuation camp and started to rearrange their life. Krinjing village community members help each other to repair houses and villages facilities damaged by the eruption. They also help each other on farming activities, including planting and harvesting. Sense of caring for each other seemed to be felt more strongly. Informants in a focus group discussion concluded this when even though they were living in evacuation camps, sense of concern and caring for each other increase among victims of the eruption. An informant even volunteered at the camp's kitchen that provides food for people in the evacuation camps.

Third, the process of recovery and growth experienced by the participants in this study can be seen from the explanation of their experience of Merapi eruption. This description is one way to understand the world, besides through the sense of personal control and stability over time (Weiss & Berger, 2010), which is a process that occurs in the realm of human cognition. In literature about PTG, it is mentioned that Westerners tend to believe that they have the potential to exert personal control over events compares to Easterners who tend to believe that they should adjust themselves to the situations they encounter (Weiss & Berger, 2010). So in the event of a traumatic event, Westerners tends to feel personal responsibility for what happened, and feel the need to explain the traumatic experiences based on their own behavior. In contrast, Easterners tends to try to find ways to adjust to events that occurred and not feel responsible for the incident. The recovery process also defines not only in individual level, but also on community level. People tend to define their sense of community rather than their sense of individuality when they explaining the process of recovery. For example they feel recovered when the facilities in the village is recovered, so they can help them continuing their live.

Fourth, connectedness in this research also imply in participant explaining about causation of disaster. As Easterners are characterized by collectivism, source of causation is not only on individual but also on collective level. For example, disaster as a result of bad human behavior can be seen as an individual effect (sin), while disaster as a result of the nature of human behavior is a form of collective impact. The last, strong connectivity between individual, community and environment can be seen in response to the government's plan to move the village of Krinjing to safer area. This is because the eruption was happening following a cycle and possibly worsening eruptions may occur in the future. Nevertheless, the idea of relocation is not the first time proposed to the villagers. Since Krinjing experienced frequent Merapi eruption,

the idea of relocation has been introduced but always gets a challenge from the villager. Various reasons are put forward relating to the relationship between society, environment and mount Merapi itself. Several informants mentioned that the difficulty in leaving the village is because the village is their homeland. Other reasons to refuse the relocation are welfare reasons and concerns that the new place is not as fertile as Krinjing and does not have the same natural resources as Krinjing. Strong inter-community relations are also one reason for the refusal. Transfer to other regions cannot guarantee the same placement area for all villagers. This condition is in accordance with the characteristics of Krinjing village as agriculture society that has strong bond with the land, water and environment, as the supporting medium for community agriculture activities. This attachment has been nurtured since hundred years ago, so it is strongly rooted in the community.

Asking Krinjing villagers to move from the land where they were born and always live is not something easy to do. Based on the study conducted previously, the village relocation had been done but it did not improve community life. At that time another disaster befall the people who moved to a new location and caused death. Since then people have the idea that Merapi eruption did not cause casualties. But by the time they moved, they would be strike by a deadly disaster. This is what makes people feel comfortable to stay in an area vulnerable to volcanic disaster, rather than having to live elsewhere.

## References List

- Almedom, A. M. (2005). Resilience, hardiness, sense of coherence, and posttraumatic growth: all paths leading to "light at the end of the tunnel"? *Journal of Loss and Trauma, 10*(3), 253-265.
- Atkinson, P., & Coffey, A. (2003). Revisiting the relationship between participant observation and interviewing. *Inside interviewing: New lenses, new concerns, 415-429*.
- Bourdieu, P. (1984). *Distinction: A social critique of the judgement of taste*: Boston: Harvard Univ Press.
- Caltabiano, M., Sarafino, E., & Byrne, D. (2008). *Health psychology*: Australia: John Wiley & Sons.
- Frankenberg, E., Friedman, J., Gillespie, T., Ingwersen, N., Pynoos, R., Rifai, et al (2008). Mental health in Sumatra after the tsunami. [AJPH.2007.120915 pii ;10.2105/AJPH.2007.120915 doi]. *Am.J.Public Health, 98*(9), 1671-1677.
- International Federation of Red Cross and Red Crescent Societies (2000). *World disasters report: A focus on public health*. Dondrecht, The Netherlands: Martinus Nijhoff.
- International Federation of Red Cross and Red Crescent Societies (2011). *World Disaster Report 2011: Focus on hunger and malnutrition*. In L. Knight (Ed.). Lyons, France: International Federation of Red Cross and Red Crescent Societies.
- Irmansyah, I., Dharmono, S., Maramis, A., & Minas, H. (2010). Determinants of psychological morbidity in survivors of the earthquake and tsunami in Aceh and Nias. *International Journal of Mental Health Systems, 4*(1), 1-10.

- Joseph, S., & Linley, P. A. (2008). *Trauma, recovery, and growth: Positive psychological perspectives on posttraumatic stress*: John Wiley & Sons Inc.
- Kirmayer, L. J., Kienzler, H., Hamid Afana, A., & Pedersen, D. (2010). Trauma and disasters in social and cultural context.
- Kun, P., Han, S., Chen, X., & Yao, L. (2009). Prevalence and risk factors for posttraumatic stress disorder: a cross sectional study among survivors of the Wenchuan 2008 earthquake in China. *Depression and anxiety*, 26(12), 1134-1140.
- Kvale, S., & Brinkmann, S. (2009). *Interviews: Learning the craft of qualitative research interviewing*: SAGE Publications, Inc.
- Malterud, K. (1993). Shared understanding of the qualitative research process. Guidelines for the medical researcher. *Family Practice*, 10(2), 201.
- Malterud, K. (2001). Qualitative research: standards, challenges, and guidelines. *The Lancet*, 358(9280), 483-488.
- National Agency of Disaster Management (2010). *National Disaster Management Plan 2010-2014*. Jakarta.
- Norris, F. H., Galea, S., Friedman, M. J., Watson, P.J. (2006). *Methods for disaster mental health research*. New York: Guilford Press
- Patton, M. Q. (2002). *Qualitative research & evaluation methods*. (3rd ed.), XXIV, 598, [565] s. California: Sage Publication
- Raphael, B., Lundin, T., & McFarlane, C. (1989). A research method for the study of psychological and psychiatric aspects of disaster. *Acta psychiatrica scandinavica*, 80(S353), 1-75.
- Reyes, G., & Jacobs, G. A. (2006). *Handbook of international disaster psychology: fundamentals and overview*. Westport: Praeger Perspectives
- Souza, R., Bernatsky, S., Reyes, R., & de, J. K. (2007). Mental health status of vulnerable tsunami-affected communities: a survey in Aceh Province, Indonesia. [10.1002/jts.20207 doi]. *J.Trauma Stress*, 20(3), 263-269.
- Splevins, K., Cohen, K., Bowley, J., & Joseph, S. (2010). Theories of posttraumatic growth: Cross-cultural perspectives. [References]. [<http://dx.doi.org/10.1080/15325020903382111%5D>]. *Journal of Loss and Trauma*(3), 259-277.
- Tang, C. (2007). Posttraumatic growth of southeast Asian survivors with physical injuries: Six months after the 2004 southeast Asian earthquake-tsunami. *Australasian Journal of Disaster and Trauma Studies*, 2, 2007-2001.
- Tedeschi, R. G., & Calhoun, L. (2004). Posttraumatic growth: A new perspective on psychotraumatology. *Psychiatric Times*, 21(4), 58-60.
- Tedeschi, R. G., & Calhoun, L. G. (1996). The Posttraumatic Growth Inventory: Measuring the positive legacy of trauma. *Journal of Traumatic Stress*, 9(3), 455-471.
- Tedeschi, R. G., & Calhoun, L. G. (2004). " Posttraumatic Growth: Conceptual Foundations and Empirical Evidence". *Psychological Inquiry*, 15(1), 1-18.
- United Nations Of Development Program (2011). *Human Development Report 2011: Sustainability and Equality A Better Future For All*. New York: United Nations Development Program (UNDP).
- Ursano, R. J., Fullerton, C. S., & Weisaeth, L. (2007). *Textbook of disaster psychiatry*: Cambridge Univ Pr.
- Weiss, T., & Berger, R. (2010). *Posttraumatic growth around the globe: Research findings and practice implications*. New Jersey: John Wiley and Sons.



