

Abstract 4

B.5

B-5

## INTERAKSI SOSIAL DAN DAYA LENTUR IBU-IBU YANG TINGGAL DI DAERAH RAWAN BENCANA DI YOGYAKARTA

Rita Eka Izzaty, Retna Hidayah, Unik Ambarwati  
Universitas Negeri Yogyakarta

### Abstract

Penelitian ini berdasarkan pada platform nasional tentang penanggulangan bencana menjadi konsep pengurangan resiko yang menegaskan keluarga menjadi unit terkecil dalam masyarakat yang akan menjadi lingkungan informal paling efektif untuk memberikan penyadaran aktivitas pengurangan resiko bencana. Oleh karena itu, penelitian yang mengambil sudut pandang Psikologi ini bertujuan untuk mengkaji; 1) prediktor psikologis apa yang paling mempengaruhi interaksi sosial: apakah identifikasi, imitasi, simpati, atau sugesti?; 2) prediktor psikologis apa yang mempengaruhi daya lentur dalam menghadapi bencana?: apakah pengaturan emosi, pengendalian dorongan, optimisme, analisis penyebab, empati, efikasi diri, atau membuka diri?; 3) adanya hubungan antara interaksi sosial dan daya lentur. Pendekatan penelitian yang digunakan adalah deskriptif kualitatif dan kuantitatif. Responden dipilih mewakili kelompok ibu produktif dan lansia secara proporsional Pada setiap wilayah kasus ditetapkan 30 orang. Total responden sejumlah 150 orang untuk 5 wilayah yang mempunyai resiko tinggi terkena dampak bencana di Yogyakarta dari wilayah bencana gunung api, gempa, dan banjir. Kelima wilayah tersebut adalah daerah rawan Bahaya Gunung Api Utama dan I yang berada di wilayah pedesaan yaitu Ngangring dan Kopeng, kemudian daerah rawan Bahaya Banjir yang berada di wilayah padat penduduk/perkotaan tepatnya di Gemblakan-Danurejan yang berada di sepanjang aliran Kali Code, dan daerah rawan Gempa Bumi dengan kepadatan tinggi karena terdapat di wilayah perkotaan yaitu di daerah Sapen-Gondokusuman. Analisis data menggunakan analisis deskriptif dan korelasi *product moment*. Hasil penelitian menunjukkan bahwa; 1) faktor yang mempengaruhi interaksi sosial yang paling tinggi adalah sugesti dan yang terendah adalah imitasi; 2) faktor yang paling tinggi mempengaruhi daya lentur adalah membuka diri, sedangkan yang terendah adalah pengendalian dorongan; 3) interaksi sosial yang dijalankan individu terbukti berhubungan dengan daya lenturnya ( $r = 0.58, p < 0.05$ ). Dalam konteks penanganan bencana berarti bahwa seseorang akan semakin lentur ketika menghadapi masalah apabila dia sering melakukan interaksi dengan orang atau kelompok lain.

Kata kunci: interaksi sosial, daya lentur, ibu-ibu, daerah rawan bencana.

11th International Conference  
on Disaster  
"Collaboration of Different  
Communities in The Community"  
Yogyakarta, March 17<sup>th</sup> - 18<sup>th</sup> 2015

## **SOCIAL INTERACTION AND RESILIENCE OF WOMEN IN DISASTER-PRONE AREAS IN YOGYAKARTA**

Rita Eka Izzaty, Retna Hidayah, Unik Ambarwati

Yogyakarta State University

### **Abstract**

This research is based on the national platform about the disaster management as one of the concepts in disaster risk reduction emphasizing families as the smallest units in a society that will become the most effective informal environment to raise awareness of disaster risk reduction activities. Regarding that platform, from the psychological point of view, this research aims to examine: (1) the most influential psychological predictors to social interaction, including identification, imitation, sympathy, or suggestion; (2) psychological predictors that influence resilience of women when facing disasters, including emotional control, inducement control, optimism, causal analysis, empathy, self-efficacy, or open-mindedness; and (3) a correlation between social interaction and resilience. This research employed descriptive qualitative and quantitative methods. The respondents of the groups of productive women and that of elderly ones were chosen proportionally. There were 30 respondents in each area. The total of the respondents were 150 from 5 disaster-prone areas in Yogyakarta including the volcano eruption, earthquake, and flood disaster. The five disaster-prone areas examined were Nganggring and Kopeng which were the main and first volcano prone-areas; densely-populated areas of Gemblakan-Danurejan along the Code River which were flood prone-areas; and densely-populated areas of Sapen-Gondokusuman which were earthquake prone-areas. The data analysis of this research employed descriptive analysis and product moment correlation. The results show that: (1) the most influential factor influencing social interaction is the suggestion and the least is the imitation; (2) the most influential factor influencing resilience is open-mindedness, while the least is the inducement control; and (3) the social interaction conducted by the individuals is proved to have correlation with the resilience ( $r = 0.58$ ,  $p < 0.05$ ). In the context of disaster management, it can be concluded that each individual can be more resilient when facing problems if she often interacts socially with others or other groups.

Keywords: social interaction, resilience, women, disaster-prone areas

**11th International Seminar  
on Disaster  
Collaboration of Different  
Generation in The Community"**  
Yogyakarta, March 17<sup>th</sup> - 18<sup>th</sup> 2015

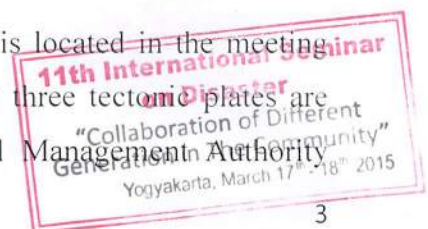
## INTRODUCTION

Special Region of Yogyakarta is a province located in south middle of Java Island. The boarder of this province is Central java Province and Indian Ocean. Geographically, this province is situated in 8° 30' - 7° 20' of south latitude and 109° 40' - 111° 0' of east longitude. Its total area is 3.185,80 km<sup>2</sup> which consists of one municipal and four regencies and are divided into 78 sub districts and 438 villages. According to the national 2010 population census, the population of Yogyakarta is 3,452,390 of which around 1,705,404 male and 1,746,986 female. Its population density is 1.084 people per km square. Administratively, Special Region of Yogyakarta has four regencies, namely Sleman, Bantul, Kulon Progo, and Gunung Kidul as well as one municipal, namely Yogyakarta.

Besides geographical and administrative condition, the physiographic condition of Yogyakarta affects the disasters which occur in this province and it includes four categories, they are:

- a. A unite of physiography Merapi volcano, extending from the volcanic cone to the plains of volcanic fluvial including volcanic landscape, covers Sleman, Yogyakarta, and Bantul.
- b. A unite of Pegunungan Selatan (south mountain) or Pegunungan Seribu (thousand mountain), situated in Gunung Kidul, is limestone hills and critical, infertile, and water shortage carts, with its middle part is Wonosari (*Wonosari Basin*).
- c. A unit of Kulon Progo mountain, situated in the north of Kulon Progo, is structural landscape denudasional with hilly topography, slope steep, and little water potency.
- d. A unit of lowland is fluvial landscape which is dominated by alluvial land, along the south part of Special Regency of Yogyakarta, ranging from Kulon Progo to Bantul which borders with Pegunungan seribu (thousand mountain). This unit is a fertile area.

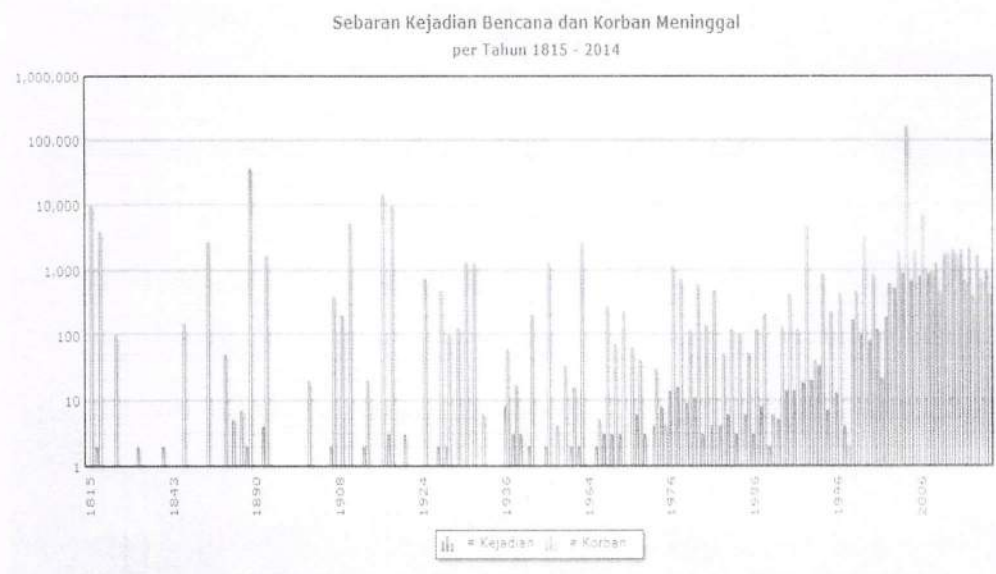
Generally Indonesia has great disaster potential since it is located in the meeting pint of three big tectonic plates which actively move. These three tectonic plates are Indo-Australia, Eurasia, and Pacific. According to National Management Authority



(Badan Nasional Penanggulangan Bencana, 2014) the earthquake occurred on 26 December 2004 was the biggest one which occurred in Indonesia since it was up to 9 Richter scale and raised tsunami with 165.798 fatal casualties. The huge number of victims indicated the unpreparedness of the people in facing tsunami because the disaster has not attacked Indonesia for 100 years. Moreover, the government was less observant to any risk of tsunami since Indonesia is located in active tectonic plates and in the middle of Indian as well as Pacific Ocean. Besides tectonic plates, Indonesia is also located in the tectonic lanes, namely Mediterranean and pacific circle.

Based on the data of National Management Authority 2014, natural disasters in Indonesia has increased. This condition is also followed by the increasing number of victims from 1815 to 2014. It can be concluded that the evacuation process during the disaster has not worked well.

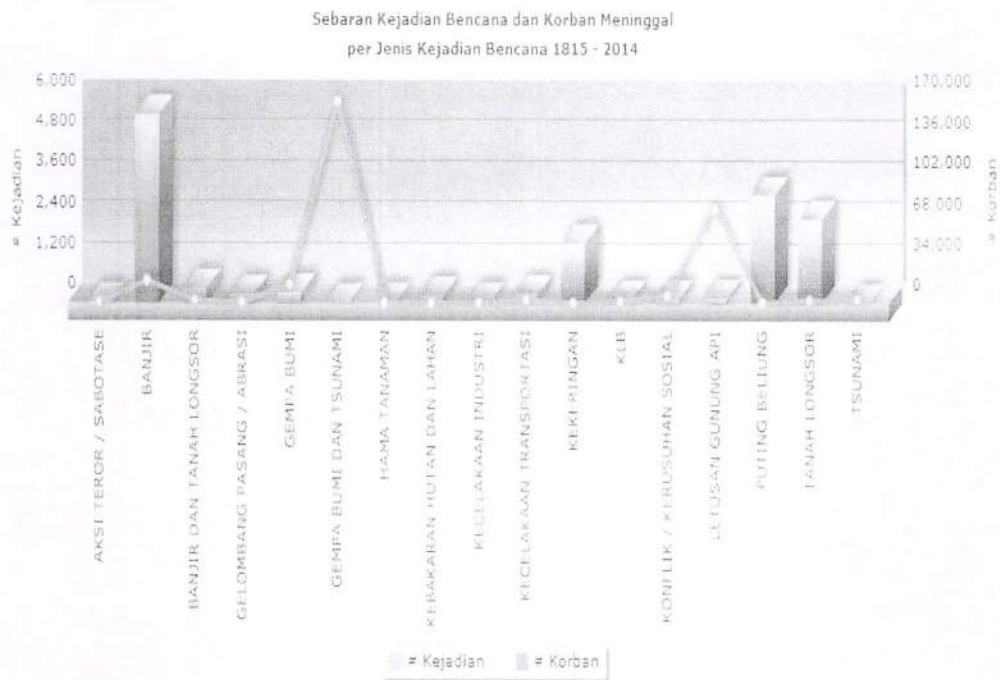
**Graphic 1. The Distribution of Disasters and Fatal Casualties from 1815 to 201**



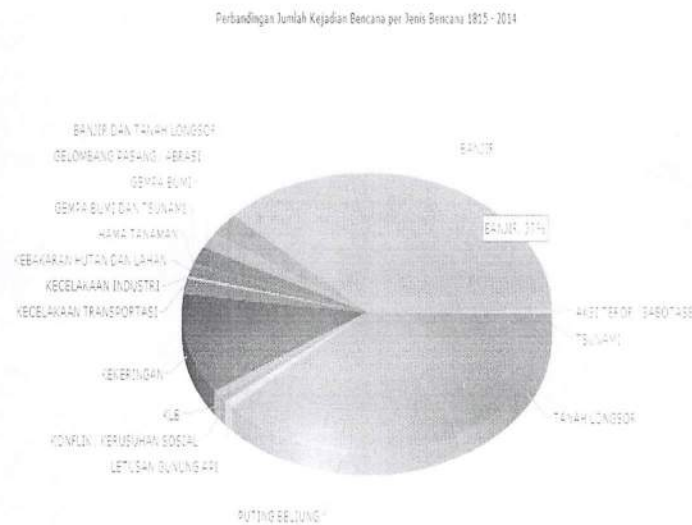
The above graphic of disaster distribution and fatal casualties in a website shows that the most occurrence disaster is flood, which occurs 5000 times during 1815-2014. However, the number of victims from this disaster is not really high. The highest number of victims of disaster is created by earthquake and tsunami, then followed by volcanic eruption in the second rank. Nonetheless, earthquake and volcanic eruption rarely occurs compared to flood.

14th International Seminar  
 on Disaster  
 "Collaboration of Different  
 Generation in The Community"  
 Yogyakarta, March 17<sup>th</sup> - 18<sup>th</sup> 2015

**Graphic 2. The Distribution of Disasters and Fatal Casualties**



The following is a diagram showing the comparison of the number of disasters during 1815-2014. The highest percentage goes to flood with 37%. This disaster is followed by some disasters such as storm wind, landslide, and other disasters with low percentage such as earthquake, tsunami, and volcanic eruption.



**Picture 1. The Comparison of the Number of Disaster Occurrences Based on Each Type during 1815-2014**

**International Seminar  
on Disaster**  
 "Collaboration of Different  
Generation in The Community"  
 Yogyakarta, March 17<sup>th</sup> - 18<sup>th</sup> 2015

The increasing frequency of disaster occurrence and high number of victims provokes a new problem. Constraints and problems disturbing the process of disaster management process are not optimal and still face other problems. Some obstacles and problems which hamper the identified disaster management process are caused by the following factors, such as: 1) less effective and slow emergency response and recovery process (rehabilitation and reconstruction); 2) lack of understanding of the prevention and management risk; 3) unpreparedness of people in facing disasters; and 4) less optimum society's participation for disaster management process (Astuti, 2010; Bakornas PB, 2007; Jenal, 2010; Subiyantoro, 2010).

From several obstacles explained before, society's preparedness and participation become the key factors which determine the success of disaster management process (Bakornas PB, 2007; Jenal 2010). The preparedness of a family as a small unit of society becomes very important in reducing disaster risk, especially to reach children and women as vulnerable groups in disasters (Bakornas PB, 2007; Wardaya, 2010). The understanding of disaster, impacts suffered, ability to reduce risk, and ability to face disaster will be internalized in each individual if disasters are their daily experience. Therefore, family, where individuals have a strong interest because of blood ties, will become the most effective informal environment to raise the awareness of the importance of disaster risk reduction activities, especially for vulnerable groups (Pribadi, 2010; Wardaya, 2010).

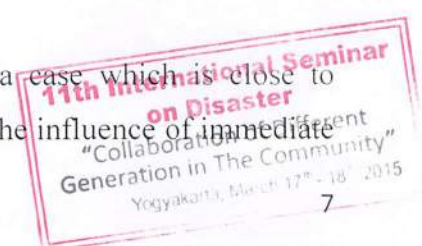
Related to the explanation described before, this study analyzes the readiness and ability of mothers to cope with disasters. The role of a mother in a family is really crucial. She has responsibilities in taking care of households and keeping socialization process of norms in a society. Even though a father also has similar responsibilities, mothers living in the areas studied are housewives who have a lot of time to stay at home and raise their children. The socialization process mainly done by mothers will create personality of their children. The formation of one's personality can be categorized into: 1) socialization process done (accidentally) through social interaction; and 2) socialization process done (intentionally) through education and teaching. The accidental socialization takes place when individuals watch anything done by people around them interacting with other people or themselves; then, by watching various behaviors in these interactions, the individuals will internalize the patterns of behavior

and interaction – followed by the underlying norms – into their mentality (Narwoko dan Suyanto, 2010). Any change in individuals or society possibly happens because of the result of interaction.

Related to the relationship between social interaction and change which occurs in society, the process of mutual influence due to the existence of transmission perceptions, values, or culture continues over time through various types of social interactions; interactions inter-individuals, inter-groups, or between individuals and groups. In the interaction inter-individuals, although they may not do activities together and meet directly, communication can take place effectively, for example by using handphone which is recently used by society from all social status. Meanwhile, in the interaction inter-groups, for example between groups Neighborhood or Citizens, various social agreements can occur in gathering assembly which usually discusses goodness or the prosperity for them. On the other hand, interactions between individuals and groups describe that an individual who has strong persuasive power can bring a topic discussed which influences or changes a group's thought, feeling, or behavior. Socialization process always takes place in a group to have behavior rules in obeying norms or values. In this case, socialization defines as a learning process for an individual or group to know the patterns of life, social values, and norms to have similarity accepted by that group. In other words, socialization is done by individuals through learning process, understanding, comprehending, and implementing expected behavior (Setiadi & Kolip, 2011).

In Indonesian culture, the role of a mother either as a member of a family or society becomes very important as an agent who can influence social changes. In the context of disaster-prone areas, the socialization of multiple changes in the patterns of thought, taste, and behavior is highly necessary to change something believed to have a negative impact on people's lives to become advantageous, either for people's prosperity or safety. When conducting social interaction, socialization aimed at transmitting any individual values or group culture occurs by the influence of imitation, identification, sympathy, or suggestion factors (Bonner, 1953). These various factors are explained below.

**Imitation** is a factor believed by psychologists as a case which is close to people. Since kids, the change process due to imitation from the influence of immediate

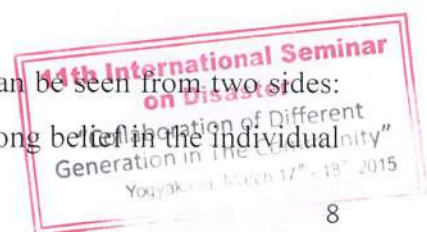


environment such as parents, teachers, friends, or society has important role in changing the behavior as a manifestation of the way of thinking. The changes occur not only through communication but also understanding of individuals or groups by observing what others do. In children, this transmission process is caused by direct observation on how the behavior of others is, while in adults, the positive and negative side considerations also reinforce the understanding of what is seen. In this case, the environment is a model for behavior change. In a disaster management, through various forms of social interactions, imitation process can be done by providing behaviors examples and strengthening the understanding by explaining the positive side of new behavior. In this case, the agent of change emphasizes the importance of the positive side on new behavior for the safety and next life. For example, in terms of the arrangement of residence, various procedures are agreed when people make the predictions of disaster occurrence or when the disaster comes.

**Identification** occurs due to the identical or similar process with others. The Definition of the term identification is almost the same as imitation, which is duplicating. However, in considering adults, imitation only imitates some cases believed to be done through deep consideration upon the situation or condition of the individuals or groups, while the identification is described as the existence of similar effort done by other party who is immediately regarded as ideal and sometimes does not undergo a deep consideration process. In other words, identification refers to the term of individual desire or want to learn or follow the track or behavior of other people regarded as an idol or ideal figure for the individual or group. Emotional interest formed by the residence closeness is believed to become the supporting factor in doing the same case.

**Sympathy.** Sympathy occurs due to the strong relation of togetherness with others. Sympathy encourages individuals or group to have close relationship. The similar experience possessed will help individuals or groups to create understanding and new behavior. Usually individuals or groups who early have experience will try to influence another party to do what they have done in comprehending the past live experiences.

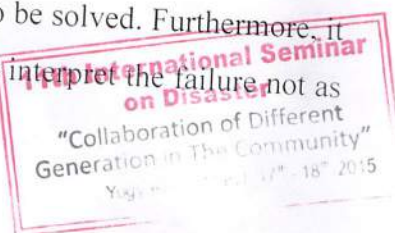
**Suggestion.** The meaning of suggestion in this case can be seen from two sides: inward or outward self. The inward side is interpreted as a strong belief in the individual





as a motivator for an individual to do something. Meanwhile, in term of outward self, suggestion is described as a process when an individual delivers a strong argument or understanding which is persuasively expected to do by others as well, either individually or in a group. Even though this case does not guarantee, there is a condition which eases the occurrences of suggestion, which is the condition when the individuals feel anxious or uncertain, and when the individual feel tired of the disadvantageous situations. In such a condition, the role of suggestion from the authorities, such as community leaders or experts in particular fields can be done, for example, an expert on disaster management. This condition will be strong if what is described or explained can be believed by the majority of the group. The influence of understanding the majority will facilitate the movement towards a change from the individuals or other groups. Predictably, building suggestion to others can more easily be done or without any deeper consideration if the person has already desired for a change encouraged by the new understanding.

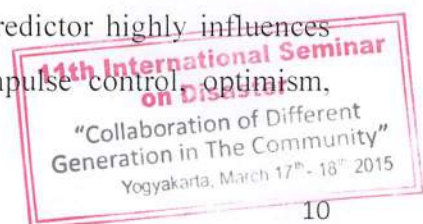
Besides various factors which affect social interaction explained before, resilience (resilictors ensi) in adapting to the environment becomes the most important factor which influences the individual's success as a member of society. This condition takes place because environment shapes the systems of belief which finally becomes a trigger to do something. Reivich and Shatte (in Suwarjo, 2007) explain that resilience is the individual's capacity for solving, guiding, and raising from a problem. It is also believed that resilience guides people to a positive propose because the strong resilience will create the capability of emotion regulation, impulse control, optimism, causal analysis, empathy, self-efficacy, and open-mindedness. Reivich & Shatte (2002: 5) defines resilience as human capacity to respond any unhappy condition, trauma, or misery with healthy and productive ways, especially to control pressures in daily life. Desmita (2009: 228) defines resilience as the human ability or capacity possessed by an individual, group, or society who wants to face, prevent, minimalize, and even clear away any disadvantageous impacts from an unhappy condition, or even changes the miserable life condition which becomes a possible problem to be solved. Furthermore, it is emphasized that an individual who has good resilience can interpret the failure not as badness instead of valuable learning experience.



Meanwhile, Reivich dan Shatte (2002: 36-47) propose seven aspects which create resilience. They are: *emotion regulation*. Emotion regulation means the individual ability to regulate emotion so that s/he keeps calm despite being in an under-pressure condition. Second, *impulse control*. Control toward impulse is the individual ability to control impulse on their selves. This ability will encourage someone's ability of thinking clearly and accurately. Third, *optimism*. resilience gives an individual the ability to always be optimistic, so that s/he believes that something can change better. This also means that there is always hope for the future and believe that s/he can control her/his life. Optimism also means the ability to see the brighter future and believe to her/his ability to solve a problem. Fourth, *causal analysis*. Individual ability in analyzing a problem can be seen from the way how s/he identifies the cause of accurate problem. Fifth, *empathy*. Empathy is the ability of an individual to sympathize and understand other people's feelings and emotions. Sixth, *self efficacy*. Self-efficacy is belief that s/he can overcome all problems with the belief in the power possessed. Seventh, *reaching out*. This aspect depicts the individual's ability to cope with fears threatening her/him in order not to hamper her/him in achieving something. *Reaching out* is not only the ability to move on but also get out of the range in which other people may not be able to do it.

From the various aspects of resilience, it is assumed that mothers who live in disaster-prone areas have strong resilience in adapting themselves with the disaster coming. It is predicted that besides internal factor, the long period of living in a disaster-prone area is also another factor. Therefore, this assumption must be proved because when it is valid, the various aspects of resilience can trigger mothers to support the structuring environment or creating procedures when a disaster comes. The same case also happens when the assumption is not valid. The various aspects of resilience become a psychological factor which must be increased with various forms of intervention.

Related to the explanation above, this research aims to analyze; 1) what psychological predictor highly influences social interaction: either identification, imitation, sympathy, or suggestion; 2) what psychological predictor highly influences resilience in facing disasters; either emotion regulation, impulse control, optimism,



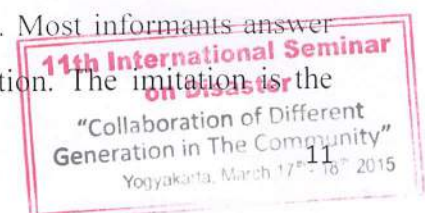
causal analysis, empathy, self-efficacy, or open mindedness; and 3) the relationship between social interaction with resilience.

## **Method**

This research employed descriptive qualitative method. Meanwhile, the instrument of this research was a scale with four answer choices which contains the references indicating various factors influencing the variables, i.e. social interaction and resilience. The informants were proportionally selected to represent a group of mother with productive age and elderly. Each area involved 30 informants and thus, the total of the informants were 150 for five areas studied. The informant for semi-structured interview would be decided after the questioners described, and the informants were selected to give diversity description. The questionnaire is employed to gain the general description and special topic about the interpretation of mothers who are vulnerable to disaster and its risk, and social response in the form of social interaction or physics to reduce disaster risks. The general description and special topic collected through questionnaire would deeply be analyzed to gain in-depth description through semi-structured interview (in-depth interview). The interview was done to share information and idea through question and answer, so that the meaning of a topic can be constructed. Focused observation was done through observing and measuring to gain the description of mothers' response and adaption in manipulating physical environment to decrease disaster risk. This research was designed to collect the samples in five disaster-prone areas of five sub districts in Yogyakarta, ranging from volcanic disaster, earthquake, and flood. The five areas are primary and I volcanic prone areas located in villages, namely Nganggring dan Kopeng, and flood prone areas located in densely populated areas, namely Gemblakan – Danurejan along Code river, and earthquake prone areas with densely populated areas, namely Sapen – Gondokusuman.

## **Results and Discussions**

This research results some information about the correlation between the social interaction and resilience among mothers living in disaster-prone areas. The social interaction shapes a pattern from five areas being researched. Most informants answer that social factor that dominantly influenced are the suggestion. The imitation is the

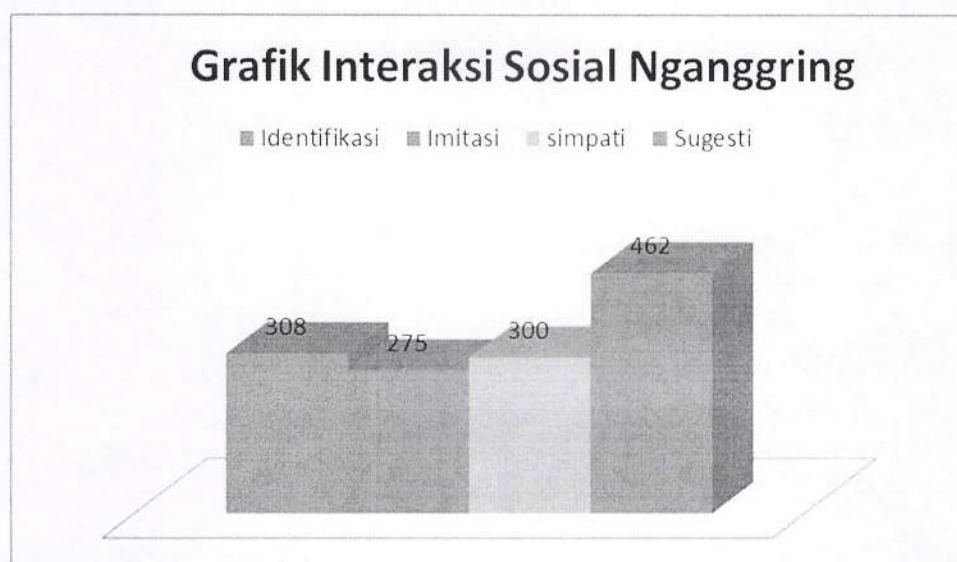


least influential social factor. Open mindedness is the highest resilience variable, while the lowest variable is impulse control. It can be concluded that people who live in disaster-prone areas have self-awareness in conducting suggestion. The suggestion or influence happens when each person has open-mindedness (reaching out) to receive and conduct everything that is good for them. Thus, the social interaction and resilience are correlated each other.

### The Social Interaction Factor

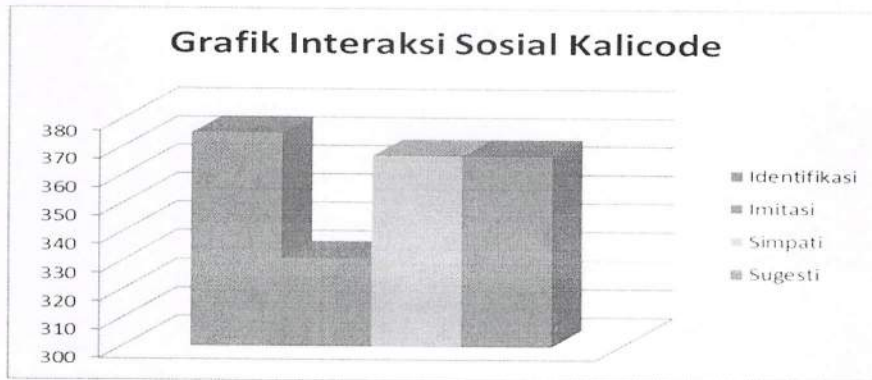
At the context of living in disaster-prone areas, a socialization of the changing of the way of thinking, feeling, and acting is importantly needed to change something that people believe to influence negatively towards society, both prosperity and safety. The social interaction itself has four factors: identification, imitation, sympathy and suggestion in which each person has experienced each factor even though the level of their awareness is different for each factor. The following is the analysis of the social interaction that consists of four factors as the variable.

**Diagram 3. The Social Interaction in the Main Volcano-Prone Area (Nganggring)**



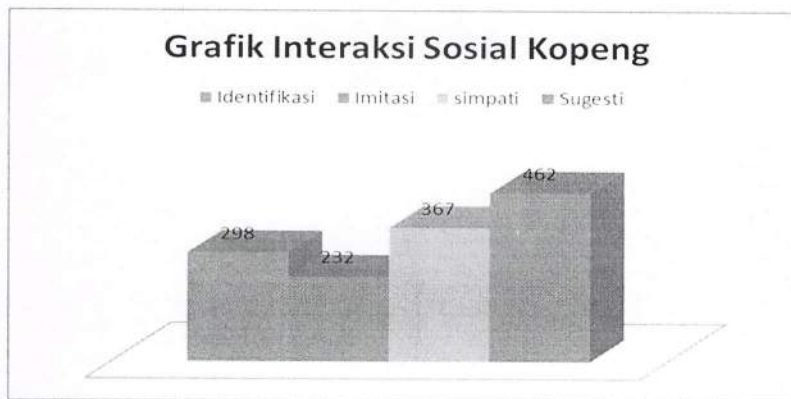
Based on the diagram 3, it is shown that the highest social interaction factor is the suggestion. It is followed by the identification, sympathy, and the imitation factor. For the area along Code River (Gemblakan – Danurerjan) of which volcano disaster-prone area I (lava), the social interaction factor that the most highly influences is identification factor. The sympathy and suggestion factor is lower, and the lowest factor is the imitation (Diagram 4.)

**Diagram 4. The Social Interaction in Volcano-Prone Area I (Kalicode)**



For the area along Code River (Gemblakan – Danurejran) of which volcano disaster-prone area I (lava), the social interaction factor that the most highly influences is identification factor. The sympathy and suggestion factor is lower, and the lowest factor is the imitation.

**Diagram 5. The Social Interaction in Earthquake-Prone Area (Kopeng)**



For the earthquake-prone area (Kopeng), it is shown that the suggestion is the highest factor compared with sympathy and identification. The lowest factor is the imitation.

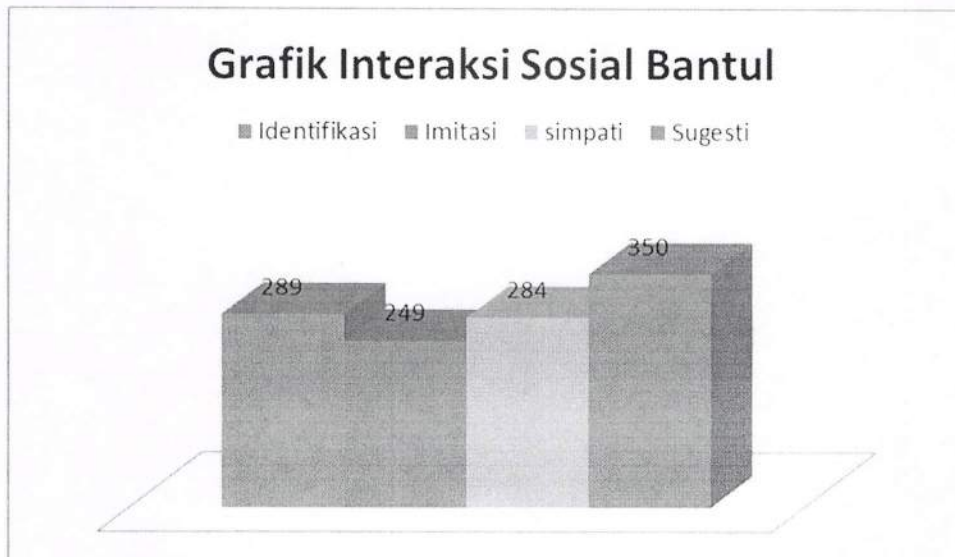
**Diagram 6. The Social Interaction in Earthquake-Prone Area (Sapen)**



**11th International Seminar  
on Disaster**  
"Collaboration of Different  
Generation in The Community"  
Yogyakarta, March 11-13<sup>th</sup> 2015

In Sapan, the highest factor is the suggestion. It is followed by sympathy, identification and imitation. Meanwhile, in Bantul, suggestion is the highest social interaction factor. Then, it is followed by identification, sympathy and imitation.

**Diagram 7. The Social Interaction in Earthquake-Prone Area (Bantul)**



As seen in the data presented in the diagrams, a similar pattern can be analyzed among the areas. The first pattern is the similarity of the highest factor in all areas being researched that is the suggestion factor. The suggestion can be defined from two perspectives: the inner or outer selves. The inner individual is defined by a strong belief that each person has as the inducement to do something. In the outer selves, the suggestion factor is described as a process when each person gives strong arguments or knowledge that persuasively is expected done by other people, individually or in group. Even though it is not guaranteed, there is a condition in which the suggestion happens easily; that is when the person is confused or hesitated. It also happens when the person feels exhausted from unfortunate situations. Disasters commonly cause both material and non-material loss. It influences the victim's psychological condition to fade. Therefore, it is normal that the suggestion is the highest social factor.

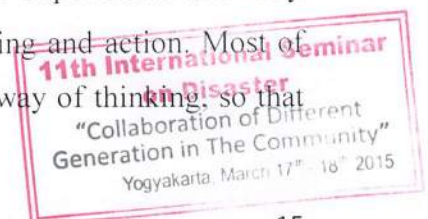
The second pattern is the similar number of the lowest factor which is the imitation factor. The imitation is defined as imitating other people or group's habits through a deep consideration. The lack of self-awareness to imitate people in the context of disasters means that people have not understood yet, are not responsive, and do not care about some efforts of disaster-risk reduction before its comes, appropriate evacuation

when it comes, and efforts of revitalization after it happens. The most influential factor affecting the imitation is whether the examples that people can follow exist or not. In preventing disasters, through many kinds of social interactions, the imitation process can be conducted by giving examples of actions and understanding about the positive sides and new manners.

According to the patterns mentioned above, individuals living in disaster-prone areas are easily suggested, but are rarely conducting imitation. The high factor of suggestion is a good thing, especially in preventing disasters. However, the inducement to act is not effective if it is not followed by concrete actions. Based on the data above, the identification score is higher than imitation. Respondents tend to act spontaneously without a deep consideration. They actually should have been aware of doing preventive or repressive to reduce disaster risks, both material and non-material loss. Self-awareness must be conducted in a better way since the beginning to get an optimum result.

In the area of Code River, Gemblakan – Danurejan, the highest social interaction factor is the identification. The identification refers to the term of individual's wants to learn by following other people's actions or manners that are, according to them, ideal to follow by them or their group. Code River is a volcano-prone area I (cold lava). Different from other areas, the cold lava that passes through the Code River can be predicted, while other disasters like volcano eruption or earthquake can happen unpredictably. In the evacuating process, people coordinate with the chiefs of the village or communicate to others through handy talky. They inform each other about how far the cold lava is, so that they can predict whether the flood of cold lava passes through their area or not. People will imitate others to evacuate their materials or themselves. Thus, the identification in disaster evacuations has the highest score.

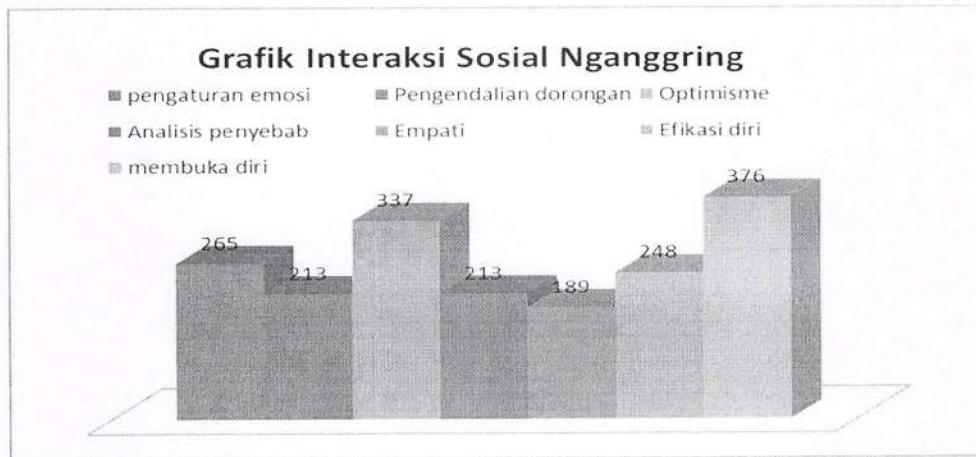
The sympathy and identification factors are in the second and third place, although in each area the second or third place is not the same. The sympathy happens because there is a strong relationship among them. The feeling of sympathy induces individuals or groups to build a strong relationship. The same experiences that they have will help individuals or groups to build a new understanding and action. Most of the individuals who are affected by the disaster have the same way of thinking, so that they will be more solid each other.



### The Resilience Factor

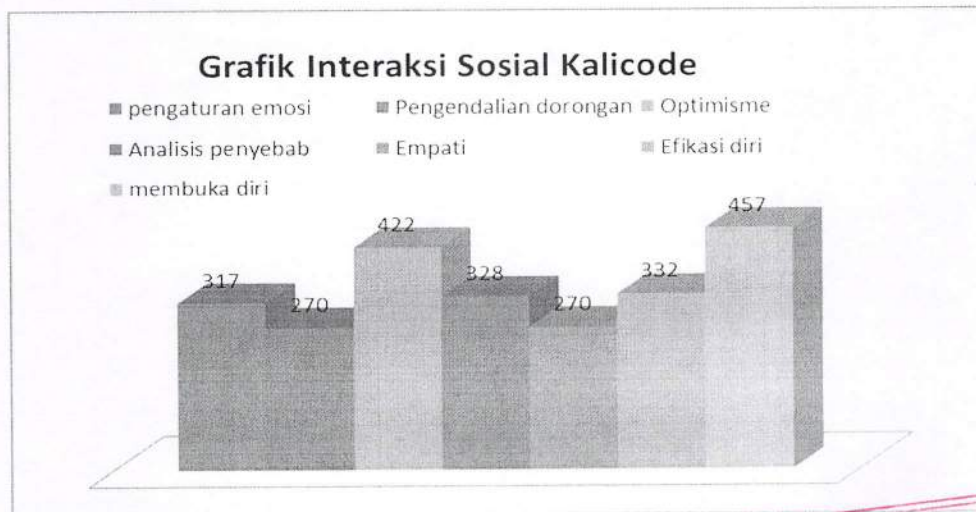
The resilience leads the individuals to a positive direction because a strong resilience can shape people's ability to control emotion and inducement, be optimistic, analyze cause and effect, be empathic, do self-efficacy, and have open-mindedness. The resilience variables refer to Reivich and Shatte (2002), the variables are emotional and impulse control, optimism, causal analysis, empathy, self-efficacy and open-mindedness. The following are the results of the study shown in diagrams.

**Diagram 8. The Resilience Factor in the Main Volcano-Prone Area**



In Nganggring, the highest variable is open-mindedness, while the lowest one is empathy. Other variables are optimism, emotional control, self-efficacy, and impulse control as well as causal analysis.

**Diagram 9. The Resilience Factor in Volcano-Prone Area I**



The highest variable is open-mindedness, and is followed by optimism, causal analysis, self-efficacy, emotional control, and impulse control.

14th International Seminar  
on Disaster  
"Collaboration of Different  
Generation in The Community"  
Yogyakarta 11/11/2015 - 18/11/2015



**Diagram 10. The Resilience Factor in Earthquake-Prone Area**

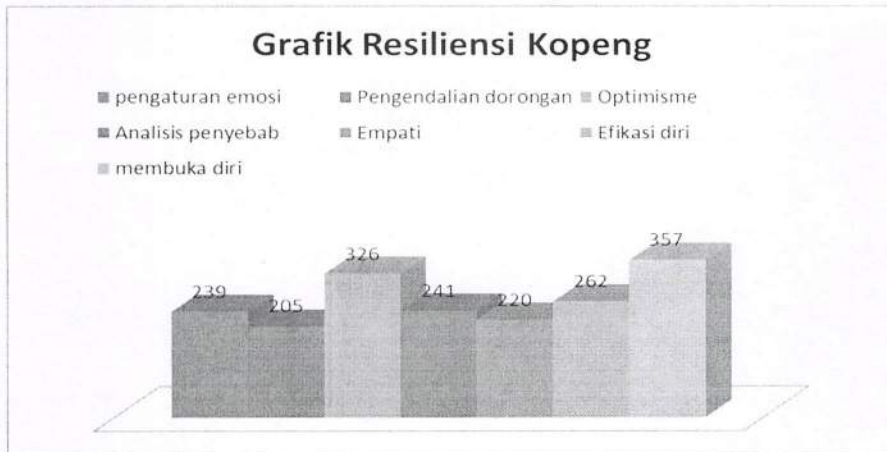


Diagram 10. shows that the highest variable is open-mindedness and is followed by optimism, self-efficacy, causal analysis, emotional control, empathy, and impulse control.

**Diagram 11. The Resilience Factor in Earthquake-Prone Area**

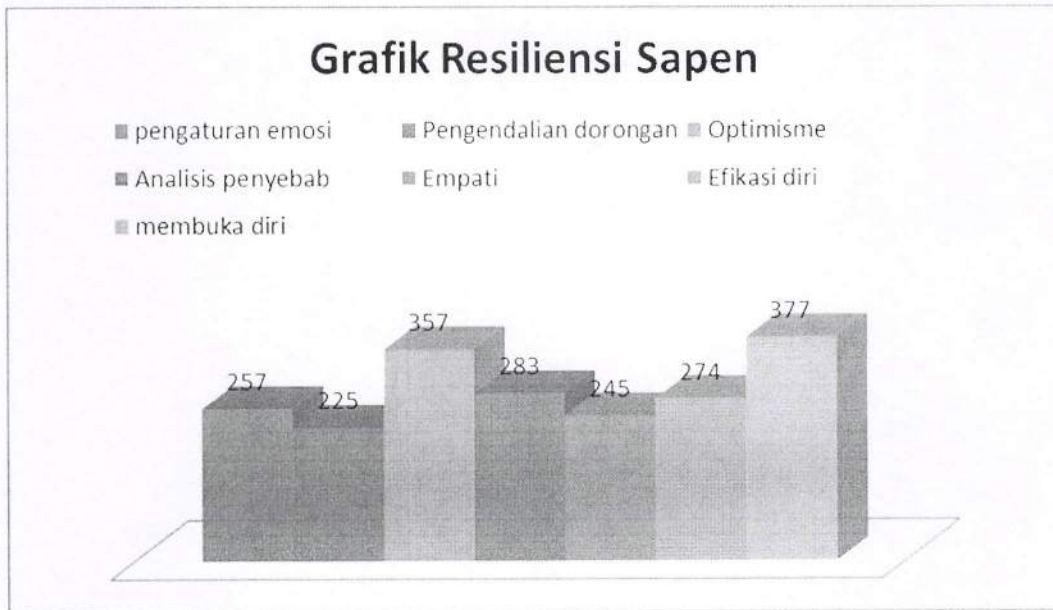
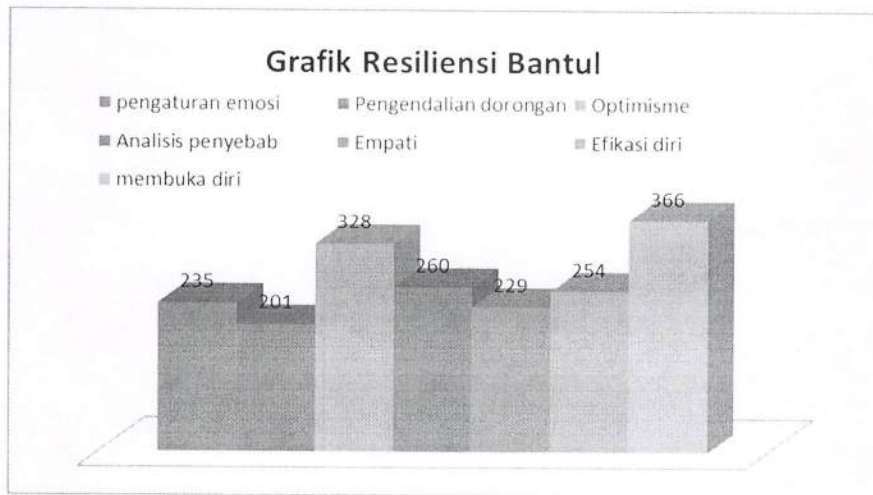


Diagram 11. shows that in Sapen as Earthquake- prone area the highest variable is open-mindedness, and is followed by optimism, causal analysis, self-efficacy, emotional control, empathy, and impulse control. Meanwhile, in Bantul as Earthquake-Prone Area. The highest variable is open-mindedness and is followed by optimism, causal analysis, self efficacy, emotional control, empathy, and impulse control (Diagram 12).

11th International Seminar  
on Disaster  
Collaboration of Different  
Generation in The Community"  
Yogyakarta, March 17<sup>th</sup> - 18<sup>th</sup> 2015

**Diagram 12. The Resilience Factor in Earthquake-Prone Area**



As shown in all diagrams, the five disaster-prone areas have similar factor to its highest factor, which is open-mindedness. Open-mindedness eases individuals to search new experience, meaning of life, and deep relationship. It also provokes them to conduct a life-long learning. At the context of preventing disasters, open-mindedness will ease the changing process to a positive way, so that the potential risks can be reduced. It also happens when the process of revitalization is conducted; open-mindedness will fasten the revitalization process effectively. It makes the social interaction among individuals runs effectively because they welcome new knowledge attained from the interaction. It also enlarges the probability of suggestion, identification, imitation or sympathy.

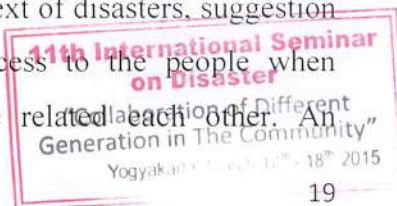
From those five areas, the variable which has the lowest score is impulse control – the individual’s ability to control their wants or inducements. The lack of individual’s ability to control their wants or inducements is insidious if the inducement directs to negative things. When the disaster happens, individuals are reluctant to think spontaneously to solve problems. Thus, the government should pay more attention this variable so that the negative psychological effects of disaster can be prevented.

Other variables such as optimism, empathy, self-efficacy, and emotional control have changeable sequence in those five areas. The resilience factor is influenced by social interactions conducted by the individuals. The better the social interactions are, the stronger and more resilient the individuals are, especially when they are facing disasters. It can be summarized that the social interaction is closely correlated to the existence of the relationship among the individuals. The relationship among the

individuals is an important thing to strengthen the resilience factor and life experiences that a person possesses to face hard things (Grotberg, 1999:104). An individual who has a good resilience identifies the effect of disaster and faces it in a better way, helps others, possesses hope and self-confidence, and believes that every disaster can be solved (Grotberg, 1999:176-177). A good family resilience helps them to achieve prosperity (Euis Sunarti, Rahma Nur Praptiwi, Istiqlaliyah Muflikhati, 2011: 2). Individual's ability to interact socially and the resilience that they have when facing hard situations are the keys of readiness, especially for the mother, to adapt when the disasters come.

### **Conclusion**

Indonesia is geographically lays in the lane of Mediterranean Mountains and Pacific Circum. It is also known as the Ring of Fire because it is surrounded by active volcanoes from two lanes of the mountains. This country is also located in the Indo-Australian, Eurasian and Pacific Plates. All those geographical matters cause it becomes a disaster-prone area. As one of the provinces which is directly bordered by Indian Ocean and having one active volcano, Yogyakarta cannot avoid the natural disasters. Based on the data from BNPB (literally translated: National Organization for Disaster Prevention), it can be concluded that in every disaster, there must be victims and a great number of material loss. Sensitivity of people living in a disaster-prone area has not built up yet. This research tries to reveal their readiness and ability, especially the mothers, who live in disaster-prone areas in Yogyakarta. This research is aimed at revealing the psychological predictors that influence the social interactions among mothers living in the disaster-prone areas and their resilience in facing disasters. Based on the results of the research, the most influential interaction factor is suggestion, while the least influential is imitation. The most influential factor in the resilience is reaching put, while the least is impulse control. According the analysis of the data, there is a correlation between suggestion and open-mindedness. The individuals, who are open-minded to new things, will be more easily suggested to conduct the things that they regard as good, effective, and the like to follow. At the context of disasters, suggestion and open-mindedness will ease the social interaction process to the people when conducting evacuation. The interaction and resilience are related each other. An



individual will be more resilient when facing problems if he/she often interacts to other people or group. At last, the least factor like imitation and impulse control need to be evaluated to create appropriate treatment so that all factors can be conducted well.

## References

- Astuti, Siti Irene., & Sudaryono. (2010). Peran sekolah dalam pembelajaran mitigasi bencana. *Jurnal Dialog Penanggulangan Bencana*, Nomor 1 Volume 1 Tahun 2010 (p. 31-42).
- Bakornas Penanggulangan Bencana. (2007). Pengenalan Karakteristik Bencana dan Upaya Mitigasinya di Indonesia (edisi II).
- Bakornas Penanggulangan Bencana. (2002). Arahan kebijakan mitigasi bencana perkotaan di Indonesia.
- Badan Nasional Penanggulangan Bencana. (2008). Perencanaan Kontijensi Menghadapi Bencana.
- Badan Nasional Penanggulangan Bencana. (2009). Data Bencana 2009.
- Euis Sunarti, Rahma Nur Praptiwi, Istiqlaliyah Muflikhati. (2011). Kelentingan Keluarga Dukungan Sosial, dan Kesejahteraan Keluarga Nelayan Juragan dan Buruh Di Daerah Rawan Bencana. *Jurnal Ilmu Keluarga dan Konsumen, Fakultas Ekologi Manusia, Institut Pertanian Bogor Volume 4 No.1, Januari 2011: 1-10.*
- Grotberg, H. (1999). *Tapping Your Inner Strength (How to Find the Resilience to Deal With Anything)*. Canada: New Harbinger Publications, Inc.
- Jenal, M. (2010). *Community based disaster risk reduction planning tool: local level risk assessment of natural hazards and development of action plans for reducing the impacts of disaster*. Inter Cooperation, Bangladesh
- Narwoko, J. Dwi., & Bagong, Suyanto. (2010). *Sosiologi Teks Pengantar Edisi Ketiga*. Jakarta: Prenada Media Group.
- Peraturan Kepala BNPB (PKBNPB) No 11 Tahun 2008 tentang Pedoman Rehabilitasi dan Rekonstruksi Pasca Bencana
- Pribadi, Krisna S., Yuliawati, & Ayu Krishna. (2010). Pendidikan Siaga Bencana Gempa Bumi sebagai Upaya Meningkatkan Keselamatan Siswa: Studi Kasus pada SDN Cirateum dan SDN Padasuka 2 Kabupaten Bandung. *Hasil Penelitian tidak dipublikasikan*.
- Reivich, K., & Shatte, A. (2002). *The Resilience Factor*. New York: Broadway Books
- Subiyantoro, Iwan. (2010.) Upaya Mengantisipasi Bencana melalui Kekuatan Berbasis Masyarakat. *Jurnal Dialog Penanggulangana Bencana*, Nomor 1 Volume 2 Tahun 2010 (p. 9-16)
- Suwarjo. (2008). Model konseling teman sebaya untuk pengembangan daya lentur (resilience). *Disertasi (tidak diterbitkan)*. Bandung: Universitas Pendidikan Indonesia.
- Wardaya, Sulistyoy. 2010. Keluarga Siaga Bencana dalam Perspektif Sosiologi: Studi pada Masyarakat Kawasan Pantai Bengkulu. *Jurnal Dialog Penanggulangan Bencana*, Nomor 1 Volume 2 Tahun 2010 (p. 39-48)
- [http://www.sciencedirect.com/science/article/pii/S2212420913000174/](http://www.sciencedirect.com/science/article/pii/S2212420913000174) diunduh 23 November 2013.



<http://dibi.bnpb.go.id/DesInventar/dashboard.jsp?countrycode=id> diakses tanggal 26/10/14 pukul 15:30

[http://id.wikipedia.org/wiki/Daerah\\_Istimewa\\_Yogyakarta](http://id.wikipedia.org/wiki/Daerah_Istimewa_Yogyakarta) diakses tanggal 26/10/14 pukul 15:15 wib.

<https://independent.academia.edu/MTaufiq2> diakses tanggal 26/10/14 pukul 15:14 wib.

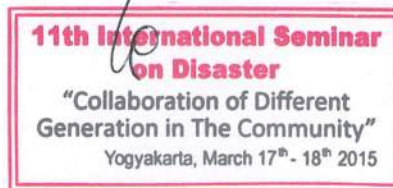
This paper is presented by Rita Eka Izzaty in 11th International Seminar on Disaster

“Collaboration of Different Generation in the Community”

Medical Faculty, Gadjah Mada University (Indonesia) and Kobe University (Japan)

Yogyakarta, March 17-18, 2015

Secretariate Committe



**11th International Seminar  
 on Disaster**  
 "Collaboration of Different  
 Generation in the Community"  
 Yogyakarta, March 17-18, 2018