Knowledge, Attitudes, Disaster Training and Self Efficacy on Disaster Preparedness

Iyam Mariam¹*, Johan Budhiana², Iwan Permana², Rosliana Dewi², Woro Rahmanishati², Lia Noviyanti², Rima Novianti Utami², Waqid Sanjaya¹, Abdul Rahman La Ede², Yohan Frans Unmehopa¹

¹ Lincoln University College Malaysia
² Sekolah Tinggi Ilmu Kesehatan Sukabumi

* Corresponding author: Email:iyam.mariam@gmail.com

Abstract

This study was conducted with the aim of investigating the role of knowledge, attitudes, disaster training and self-efficacy of adolescents of Sirnaresmi Village, West Java on disaster preparedness. This study uses the qualitative method with field research in Sirnaresmi. The results showed that there was a simultaneous or shared influence on knowledge, attitudes, disaster training and self-efficacy on disaster preparedness. The results revealed that there is a relationship between the four aspects in influencing disaster preparedness. Training is needed in mitigation as a short-term educational process. It needs to be conducted by using systematic and organized ways and procedures where training participants will learn practical knowledge and skills for specific purposes. By conducting disaster training, an individual will gain knowledge and skills in dealing with disasters so that with the training carried out, knowledge about disasters will increase.

Keywords

knowledge, attitudes, disaster training, self-efficacy, disaster preparedness.
1. Introduction

Knowledge is a result of curiosity through sensory processes, especially in the eyes and ears for certain objects (Donsu, 2017). The knowledge that adolescents must have about disasters, namely an understanding of disasters and an understanding of disaster preparedness, includes an understanding of appropriate self-rescue measures when a disaster occurs and actions and equipment that need to be prepared before a disaster occurs (Tahlil, 2017). Age is one of the factors that affect a person’s knowledge of health. As people get older, their knowledge about disasters and disaster preparedness behavior will increase (Firmansyah & Rasni, 2014). Notoatmodjo (2010) and Amirudin & Maliya (2018) states that the older you get, the more your comprehension and mindset will develop, so that the knowledge you get is getting better. In addition to knowledge, the thing that influences disaster preparedness is attitude.

Ningtyas (2014) states that attitude is something that is learned and attitudes determine how individuals react to a situation and determine what individuals are looking for in life. The cultural factor of the community is one that can influence adolescent attitudes in dealing with disasters. According to Azwar (2007), cultural influences can shape a person's attitude and personality (Firhani, 2017). According to Lumaksono (2013); Firhani (2017), cultural ecology states that there are two cultural concepts in influencing attitudes, namely adaptation and coping. Adaptation consists of two levels, namely the way the cultural system adapts to the environment and the way a culture adapts or adapts to one another. Coping is the implementation or application of local community knowledge obtained from generation to generation in dealing with natural disasters and other disasters (Syahputra, 2019). Disaster preparedness can also be improved through disaster training activities.

Preparedness training is defined as a form of coordination, communication and evacuation exercises involving all stakeholders (government and the general public) (BNPB, 2017). According to BNPB (2017), disaster management training empowers adolescents by providing basic life and safety skills needed to “get safe” and stay safe during a disaster so that youth can avoid the impact of natural disasters, and can provide first aid to victims and victims how to evacuate if a disaster occurs (Utami & Nanda, 2018). Equally important in disaster preparedness is self-efficacy.

Self-efficacy is an individual's assessment of the ability or competence to do a task, achieve a goal and produce something (Tumurang et al., 2019). According to Bandura (1997); Zahrani et al. (2015), self-efficacy can be grown and learned through four things, namely through the experience of mastering something (mastery experience), social modeling, social persuasion, physical and emotional conditions. The gender factor is one of the factors that affect self-efficacy, gender differences affect self-efficacy. Suryono (2018) research results show that there are significant differences in the level of self-efficacy based on gender. Women have a higher self-efficacy than men. According to Bandura (1997); Zahrani et al. (2015), women have higher efficacy in managing their roles because women are usually more confident in their ability to achieve a goal independently than men. This study uses the qualitative method with field research in Sirnaresmi and aims to find out the role of knowledge, attitudes, disaster training and self-efficacy on disaster preparedness
2. Literature Review

Preparedness is a series of activities carried out to anticipate disasters by organizing and taking appropriate and efficient measures (Aprilin, 2018). Disaster preparedness must be applied especially to disaster risk areas. The application of disaster preparedness does not only involve the government, but also involves the community, including youth (Qirana et al., 2018). Disaster preparedness can be grouped into four main parameters, namely knowledge and attitudes, planning for emergency conditions, early warning systems and resource mobilization.

The age factor is an important factor from several other factors that can affect individual preparedness. Wahidah et al. (2016) state that there is a significant relationship between age and preparedness. In terms of development, adolescence does have high potential, especially in achieving rapid development of thinking skills and shifting about new roles in society. In addition, the adolescent age group has a good resilience rate during and after a disaster. The characteristics of adolescents who are so strong can have a good awareness to be prepared for the threat of death due to disasters (Salasa et al., 2017). The age of the respondents in the study was 15-24 years, which is the age that plays the most role and has a solid activity and has good cognitive abilities. So, at this age it has an influence on the level of knowledge (Suwaryo & Yuwono, 2017).

The next important factor that can affect individual disaster preparedness is the level of education. The results of research by Wijaya et al. (2019) show that there is a significant relationship between education level and preparedness. Kumalawati (2016) states that there is a positive influence between the characteristics of the respondents, namely the level of education on preparedness. The higher the level of education, the higher the level of public knowledge about preparedness.

According to Maryanti et al. (2017) education and knowledge of adolescents about landslides and disaster preparedness are very important, to reduce the impacts and risks arising from landslides, so it can be concluded that the level of formal education can affect the level of landslide disaster preparedness. The results showed that almost all respondents still attended formal education, namely schools at the junior and senior high school levels. Schools are an effective vehicle for providing effect to disseminate information, knowledge and skills to the community closest to them. Thus, disaster education activities in schools become effective, dynamic and implemented in increasing the ability of school residents to be able to reduce the impact of disaster risks in schools (Widjanarko & Minnafiah, 2018).

The next factor is social capital, this factor is an important factor in disaster preparedness. Adnan (2019) state that social capital has an effect on disaster preparedness. Social capital can be a strong capital built by local communities and existing organizations because people in disaster prone areas usually adapt to situations by developing types of survival strategies based on the resources they have, including social capital. The elements of social capital consist of social beliefs, norms and networks (Adnan, 2019).

The basis of a behavior in individuals in building social capital in terms of trust. Adolescents with good trust are usually more able to trust themselves or other individuals in disaster preparedness. They become confident in their capacity in disaster preparedness and have confidence that they can participate in disaster preparedness.
The next element is norms, norms are closely related to rules applied by society and must be obeyed / followed by the whole community, including youth as one of the community units. Good norms in adolescents will build positive behavior in adolescents, this can lead adolescents to participate in disaster preparedness. So that adolescents are able to become the hope of the community in implementing disaster preparedness well. The last element in social capital is social networks. A good social network for adolescents will facilitate interpersonal relationships among adolescents in disaster preparedness.

3. Results

The results showed that the majority of adolescents stated that they were almost ready for disaster preparedness, while a small proportion stated that they were ready for disaster. Attitude indicator preparedness is in the very ready category, while the preparedness of knowledge indicators, emergency response plans, early warning systems and resource mobilization are in the unprepared category.

This strong social capital will raise awareness of youth to take an active role in disaster preparedness, especially landslides in Sirnaresmi Village. The form of social capital has been seen in adolescents with a high level of cooperation, as well as adolescent adherence to the prevailing norms in Sirnaresmi Village and a strong belief in the abilities of adolescents. So, teenagers are the big hope of the community so that they will always participate in landslide disaster preparedness in Sirnaresmi Village.

The results showed adolescents in Sirnaresmi have knowledge about landslide disaster preparedness on youth preparedness in facing landslide disasters. The results showed that most of the respondents had good knowledge, thus encouraging the preparedness of the respondents, most of them were in the ready category. Purwoko (2015) and Tahlil (2017) show that there is a significant influence between the level of knowledge about disaster risk and youth preparedness in the face of disasters. Fauzi & Sukamdi (2017) and Andini (2019) also shows that adolescent knowledge about disaster preparedness affects adolescent preparedness in facing landslides. The level of preparedness for landslides can be measured by paying attention to several factors, one of which is knowledge (Andini, 2019). The knowledge that must be possessed is an understanding of disasters and an understanding of disaster preparedness, including an understanding of appropriate self-rescue actions when a disaster occurs as well as actions and equipment that need to be prepared before a disaster occurs (Tahlil, 2017).

The level of knowledge on disaster management is a basic aspect that should be possessed by every community, including teenagers, to be able to provide information to their family members when a disaster occurs (Setyaningrum & Rumagutawan, 2018). Twigg (2007) states that if individual knowledge including adolescents about hazards, vulnerabilities, risks and risk reduction activities is sufficient, it will be able to create effective community action independently or in collaboration with other stakeholders in dealing with disaster. The level of preparedness of a person can be shaped by how often the person gets knowledge or information about prevention and preparedness (Fitriana et al., 2017; Dewi et al., 2020).

In terms of the role of attitudes on disaster preparedness, the results showed that there was a important role of adolescent attitudes towards disaster preparedness. Chotimah (2019) and Adiwijaya (2017) show that attitudes have a positive and significant impact on preparedness in
facing landslides. A caring attitude creates a spirit of preparedness for both oneself and other communities so that the process of self-rescue can occur. Attitudes will influence a person's behavior through a decision-making process, in this case the individual's attitude in making decisions to continue to carry out disaster preparedness. The better the attitude you have, the better prepared you are to deal with a disaster. The results of this study indicate that most respondents have a supportive attitude towards landslide disaster preparedness, thus encouraging preparedness, most of which indicate that they are almost ready to face landslides.

Attitudes are always related to emotional components, cognitive components (perceptions, opinions, beliefs) and behavior (Rahmayani, 2018). Attitude plays a major role in one's preparedness in saving oneself from disasters, meaning that the better the attitude about disasters, the more prepared they will be to face disasters (Hesti et al., 2019). LIPI / UNESCO / ISDR states that an attitude and a sense of care can influence disaster preparedness. Attitude indicators for dealing with disasters include efforts to prevent disasters from occurring, examining environmental conditions that are likely to cause disasters, participating in socialization and training activities. In improving disaster preparedness, teenagers must have a good attitude and concern for disaster preparedness (Solikhah et al., 2020).

In term of the role of disaster training on disaster preparedness, the results showed that there was an important role of disaster alert training on youth preparedness in facing landslide disasters. The results showed that some adolescents had experienced or attended disaster preparedness training, thus enabling them to have an almost ready level of preparedness. Strategic steps that can be taken to improve disaster preparedness are by providing training on disaster management. Disaster management training empowers participants by providing basic life and safety skills needed to be safe "get safe" and stay safe "stay safe" during a disaster so that participants can avoid the impact of natural disasters, and can provide first aid to victims and methods evacuation if a natural disaster occurs. Disaster training activities are an effective, dynamic, and sustainable strategy in the dissemination of disaster education (Utami & Nanda, 2018). Pratiwi & Prihatiningsih (2016); Ferianto & Hidayati (2019) show that there is a significant effect of disaster management training on disaster preparedness behavior. Murtaqib & Widayati (2017); Haryuni (2018) showed that there was a significant effect of training and disaster simulation on disaster preparedness. In addition, BNPB (2014) states that the main objective of disaster management training is to improve preparedness.

Based on the results of the field study, it shows that there is an important role of self-efficacy on disaster preparedness. Darmansyah (2017) said that the higher the self-efficacy of adolescents, the more ready adolescents are in dealing with disasters, indicated by a strong belief in their ability to be involved in disaster preparedness and adolescents tend to be more confident in taking action for disaster emergency response. This strong belief can make teenagers more responsive to disaster emergencies through disaster preparedness. So that the higher the self-efficacy of adolescents can affect disaster preparedness in adolescents (Tumurang et al., 2019). Landslide disaster is one of the big problems for every teenager who experiences it, so teenagers who can solve and survive these problems make them more confident, optimistic and confident in their ability to face problems in the future. An optimistic attitude in facing disasters can provide confidence to face future disasters (Syarif & Mastura, 2015). Moreover, Syarif & Mastura (2015) and Shafithri (2017) state that there is an influence of self-efficacy of individuals with disaster
preparedness. Tumurang et al. (2019) states that self-efficacy and disaster training affect disaster preparedness, while Kalpana & Dirhamsyah (2016) state that increasing self-efficacy with disaster training affects disaster preparedness actions.

4. Conclusion

The results showed that there was a simultaneous or shared influence on knowledge, attitudes, disaster training and self-efficacy on disaster preparedness. The results revealed that there is a relationship between the four aspects in influencing disaster preparedness. Training is needed in mitigation as a short-term educational process. It needs to be conducted by using systematic and organized ways and procedures where training participants will learn practical knowledge and skills for specific purposes. By conducting disaster training, an individual will gain knowledge and skills in dealing with disasters so that with the training carried out, knowledge about disasters will increase.

Along with increased knowledge about disaster preparedness, it encourages to have a strong and positive attitude towards disaster preparedness. The results showed that some respondents had experience related to disaster training, most respondents had good knowledge, positive attitudes and high self-efficacy so that disaster preparedness was increased. A good knowledge of preparedness will form a good attitude about preparedness. The existence of disaster training, good knowledge of disaster preparedness and a positive attitude will give an individual a high level of confidence to do something including disaster preparedness.

As suggestion, further researchers are expected to conduct research by adding the respondent's characteristic variables such as age, gender and others. The results showed that most of the respondents in this study were women, so it was possible that the respondents' self-efficacy was high. For Sirnaresmi village, it is hoped that the people, especially teenagers, will improve disaster preparedness by seeking more disaster-related information from social media such as the internet and electronic media such as radio and TV and being involved in disaster-related institutions or organizations.

For BPBD Sukabumi regency, it is hoped to provide information related to sustainable disasters and make efforts to improve community preparedness, especially teenagers through activities in the form of training, seminars, workshops related to natural disasters, especially landslides. Lastly, For the Sukabumi District Education Office, it is expected to encourage all levels of schools, both elementary, junior high and high school, to include local content subjects and teaching materials that contain disaster preparedness considering that Sukabumi is an area with a high risk of landslides.

References


