

Analysis of disaster preparedness among teachers of SMA negeri 1 Palas, South Lampung

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ABSTRACT

This study aims to determine the level of disaster preparedness among the teachers of SMA Negeri 1 Palas in South Lampung. Palas is located near the Anak Krakatau. This area has high disaster risks, either from Anak Krakatau eruption, earthquake, or tsunami. That is why a study of disaster preparedness was needed. This research adopted quantitative research methods, using a Psychological First Aid (PFA) questionnaire. The Psychological First Aid is widely used for psychosocial support in disaster preparedness. The research subjects were 30 teachers. The data were analyzed through a descriptive statistics analysis. The results indicate that the teachers at SMA Negeri 1 Palas understand about giving Psychological First Aid as a disaster preparedness support quite well, with the frequency of high category of 47%, the frequency of moderate category of 50%, and the frequency of low category of 3%. In addition, the teachers have understandings about 1) providing direct care of the Psychological First Aids, with the frequency of high category of 80%, the frequency of moderate category of 20%, and the frequency of low category of 0%; 2) high risk people identification of the Psychological First Aids, with the frequency of high category of 63%, the frequency of moderate category of 37%, and the frequency of low category of 0%; and 3) the follow-up design of the Psychological First Aids, with the frequency of high category of 73%, the frequency of moderate category of 20%, and the frequency of low category of 7%.

KEYWORDS

Teachers; psychological first aid; disaster preparedness

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Introduction

A disaster is said as an occurrence disrupting the normal conditions of existence and therefor causing a level of suffering that exceeds the capacity of adjustment of the affected community (WHO, 2002). Indonesia is a disaster-prone country when viewed from its seriousness and physical point of view. Geographically, Indonesia is an archipelagic country located at the confluence of four tectonic plates, namely the Asian Continent plate, the Australian Continent plate, the Indian Ocean plate, and the Pacific Ocean (BNPB, 2017). This condition absolutely gives the potential to cause disasters in Indonesia, which can occur at any time and at unexpected time.

One of the high risk disaster-prone area in Indonesia is Lampung Province. This province is located adjacent to a coastal area. It gives a relatively high level of tsunami disaster potential. Based on the results of further studies and research conducted by the Directorate of Mapping and Disaster Risk of BNPB, the Lampung region also has natural activities that have the potential to trigger natural disasters, namely the activity of Anak Krakatau Mount in the Sunda Strait. As it is known that this volcanic eruption activity is still happening and is currently at Level III or Alert. On December 22, 2018, the tsunami hit several areas, including the coastal areas of South Lampung. The

incident occurred precisely at night. The increased activity of the Anak Krakatau Volcano resulted in rising sea levels or tsunami that swept away some villages or residential areas within the range of the tsunami.

Natural events absolutely will have some impacts on human life. Given the events occurred, the condition of the people whom threatened by the disasters is indeed very worrying. Natural disaster are difficult to be detected, including earthquakes, mount eruptions, and tsunamis. Therefore, people need to have some knowledge and also skill in disasters preparation to understand how to reduce disaster risks. Disaster preparedness can be achieved through learning in education. Thus, it is necessary to know how far is the disaster preparedness of the community to anticipate them. This disaster preparedness can be known through formal or non-formal education, with aims to form attitudes and behavior that can be used to reduce disaster risks.

The Indonesian National Agency for Disaster Countermeasure (BNPB, 2019) reported the survey that showed that at the disaster there would be some survivors that were caused by themselves by 35%, family members by 31.90%, friends or neighbours by 28.10%, people passing by 2.60%, SAR teams by 1.70%, and others 0.70%. Based on that survey, the most determining factor for one's safety when natural hazard occur is the mastery of the knowledge possessed by oneself. Therefore, educational sector is responsible for spreading disaster preparedness, to make sure that everyone have the chance to survive when disasters happen.

Disasters should be responded well by teacher. Schools have a role that is considered important to increase knowledge and skills regarding disaster preparedness for students through teachers as conveyers of material in the learning process. It is known that understanding and information regarding disaster preparedness among Primary Schools Teachers in South Lampung are still low (Widiastuti, et. al., 2019). In the pre research interviews, it was found that the teachers' knowledge and skills in disaster preparedness are still lacking. Foote (2015) concluded from some researches the relationship between teacher and students can influence the students' emotion stabilization increasing at school. Teachers therefor have an important role in disaster management. Basrori (2013) states that formal education as a form of learning held in schools can make a school be a good place to distribute the knowledge or information about disasters preparedness. It shows that the role of the teacher is important.

Teachers need to know about and also skillful at applying disaster preparedness to be well transformed to the students. Good students' understanding of knowledge and skills in disaster preparedness will broadly affect the community and students, and then affect the broader school environment in a good way. Johnson & Ronan (2014) also explained that teacher need to have good knowledge and skill at disaster preparedness, as they will be the best figure to help educational sector building the support for students. Joshi (2014) in his research found that among the teachers in India 53% have not mastered the disaster preparedness' skill yet, and the 47% have not mastered the disaster preparedness' knowledge yet. Relevant research was conducted by Ayub et al (2020). The research was entitled "Analysis of Disaster Preparedness on Students and Teachers at State Elementary School 6 Mataram". The results of the study revealed that the level of preparedness of students and teachers of SD Negeri 6 for disasters was categorized as low. As teachers, they need to have a high awareness of the efforts that must be made to students in the event of a disaster when they are at school.

According to WHO, there is Psychological First Aid (PFA) as a series of actions and techniques that needed to be taken as soon as possible after a disaster, to minimize future negative impacts according it. PFA is widely used for disaster preparedness and response by governments, UN and NGOs (WHO, 2016). Psychological First Aid (PFA) as part of humanitarian emergency preparedness and response to stressful events including disaster need to be mastered by people before disaster come. Setiawan et. al. (2020) stated the measurement tools for knowledge and attitude of school disaster preparedness divided into three categories. Those categories are: 1) standard operating procedure (SOP) (33%), 2) knowledge of disasters and disaster management with (43%), and 3) access to knowledge

about disasters and disaster management (24%). Foote (2015) in his research states that many aspects affect student-teacher relationships that can increase student stability in schools.

Based on the description above and considering that a disaster event can occur at any time with an unpredictable time, teachers have to provide understanding knowledge and skills of PFA disaster preparedness. The role of the teacher, in this case, is very important; considering that the teacher must spearhead in sharing the awareness, skill, and knowledge of PFA disaster preparedness among students to reduce the risk of disaster threats.

Research method

This research was conducted in South Lampung Regency, precisely in Palas Sub District. The subjects of this study were all teachers who teach at SMA Negeri 1 Palas, totaling 30 teachers. In this study, a statistical quantitative descriptive approach was applied. Research data collection was done through the distribution of PFA questionnaires. The questionnaire is a data collection technique that is carried out by giving a set of questions or written statements to respondents (Sugiyono, 2017). There are some characteristics of the subjects as presented below.

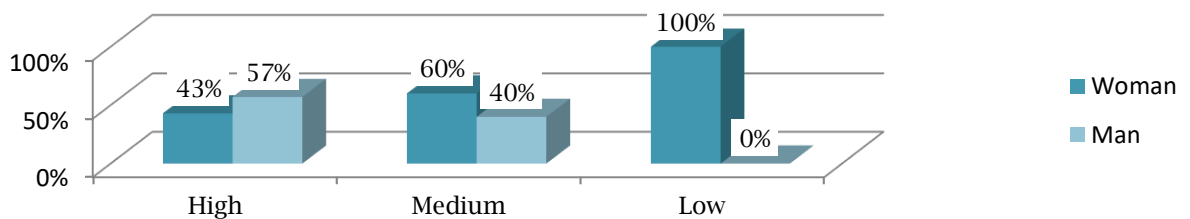


Figure 1. Disaster preparedness percentage categorized by subjects' sex

Figure 1 shows the frequency of woman with high category is 43% while man with high category is 57%, the frequency of woman with moderate category is 60% while man with moderate category is 40%, and the frequency of sex for low category is 100% in woman only.

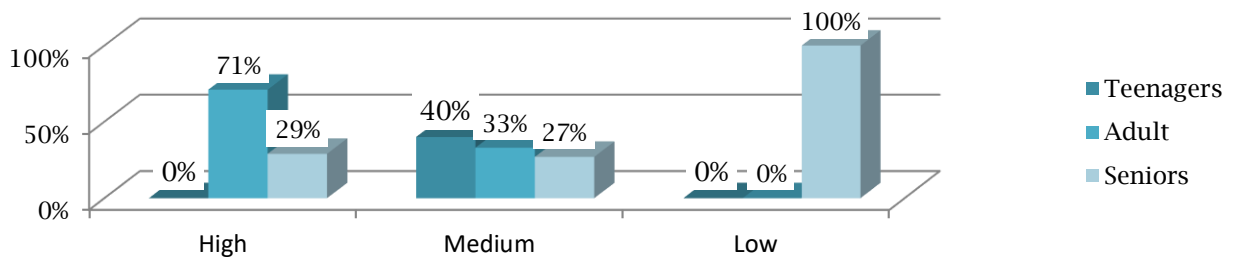


Figure 2. Disaster preparedness percentage categorized by subjects' age

Figure 2 shows the frequency of subjects' age for adult with high category is 71% while seniors with high category is 29%, the frequency of subjects' age for teenagers with moderate category is 40%, adults with moderate category is 33%, while seniors with moderate category is 27%, and the frequency of subjects' age for low category is 100% in seniors only.

Findings

Descriptive percentage of disaster preparedness knowledge variable

PFA questionnaires was made from the theory of disaster emergency by INEE (2017). There were 18 items. From the Aiken's V calculation obtained validation coefficient $V = 0,80$ for 11 items and $V = 1,00$ for another rest 7 items. Reliability test with *Alpha Cronbach* method obtained $r = 0,960$. So this PFA questionnaires was valid and reliable.

It shows that the teachers at SMA Negeri 1 Palas understand about giving Psychological First Aid as a disaster preparedness quite well, with the frequency of high category of 47%, the frequency of moderate category of 50%, and the frequency of low category of 3%.

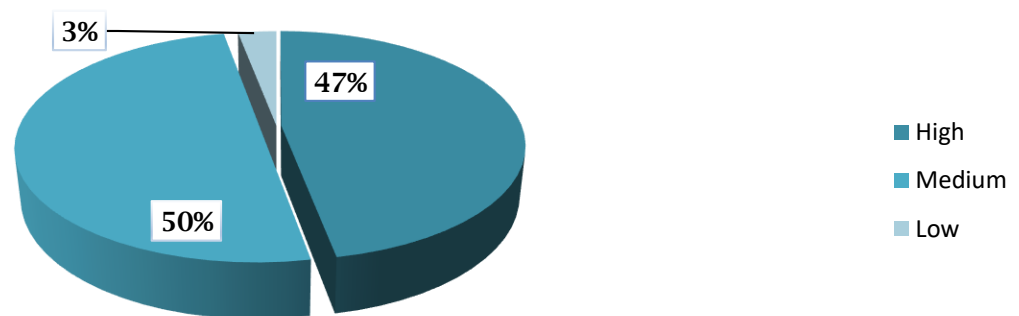


Figure 3. Frequency of psychological first aid knowledge as a disaster preparedness in teachers

Figure 3 above is a diagram of the percentage of knowledge on disaster preparedness. The picture shows that there are 14 teachers with a percentage of 47% so that they are included in the high category, two of whom are Guidance and Counseling teachers. Furthermore, 15 teachers are included in the medium category with a percentage of 50%. The results of the study also found that there was 1 teacher or 3% which was included in the low category. Based on the description above, it is concluded that the teachers of SMA Negeri 1 Palas as a whole know enough about disaster preparedness at high and medium levels.

The descriptive statistical analysis of disaster preparedness' descriptor

The teachers' knowledge about PFA as a tool of disaster preparedness is divided in three descriptors which are: 1) providing direct care of the Psychological First Aids, with the frequency of high category of 80%, the frequency of moderate category of 20%, and and the frequency of low category of 0%; 2) High Risk People Identification of the Psychological First Aids, with the frequency of high category of 63%, the frequency of moderate category of 37%, and the frequency of low category of 0% ; and 3) design Follow Up of the Psychological First Aids, with the frequency of high category of 73%, the frequency of moderate category of 20%, and and the frequency of low category of 7%. The results of the categorization given in the form of percentage and figures as presented in the following diagrams.

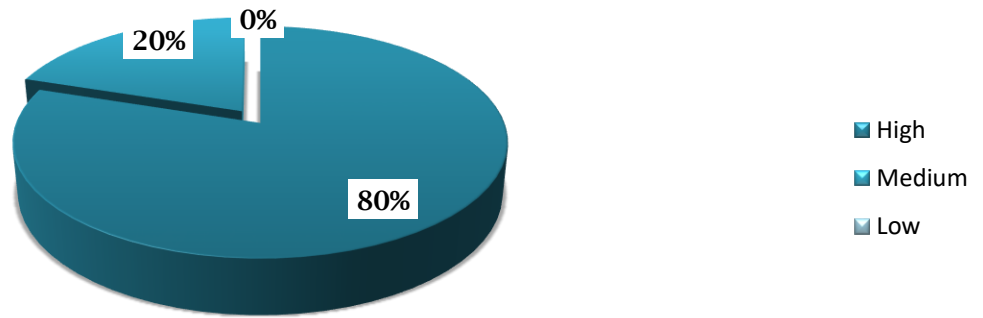


Figure 4. Frequency of provide direct care

Figure 4 above is a diagram of the percentage of disaster preparedness in provide direct care. The diagram shows that there are as many as 24 teachers or 80% of teachers are in the high category, where two of them are Guidance and Counseling teachers. There are as many as 6 teachers with a percentage of 20% are in the medium category. In other words, it can be said that almost all teachers at SMA Negeri 1 Palas understand well in provide direct care for disaster preparedness.

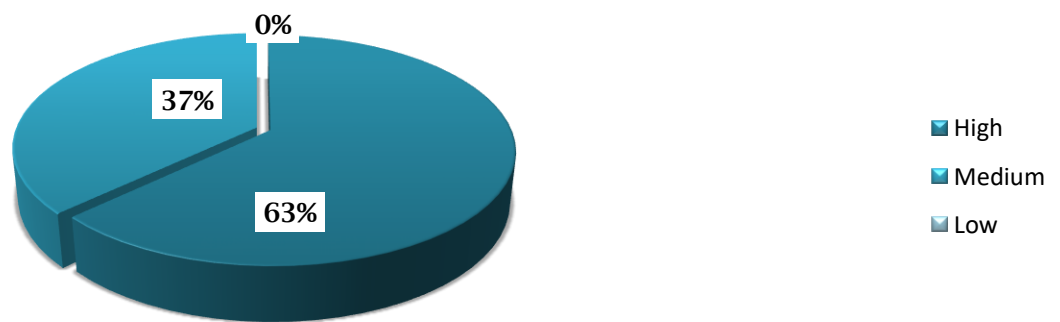


Figure 5. Frequency high risk people identification

Figure 5 above is a diagram of the percentage of high risk people identification in PFA disaster preparedness. The diagram shows that there are as many as 19 teachers or 63% of teachers are in the high category, where two of them are Guidance and Counseling teachers. There are as many as 11 teachers with a percentage of 37% are in the medium category. In other words, it can be said that almost all teachers at SMA Negeri 1 Palas understand well in high risk people identification for PFA disaster preparedness.

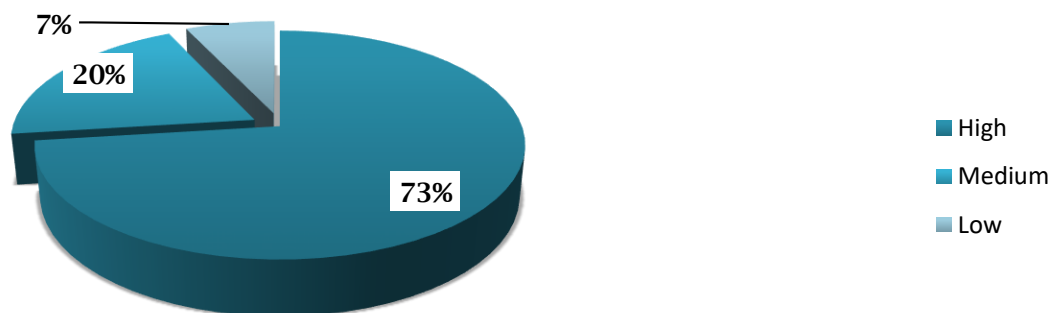


Figure 6. Frequency of design follow up

Figure 6 above is a diagram of the percentage of design follow up in PFA disaster preparedness. The diagram shows that there are as many as 22 teachers or 73% of teachers are in the high category, where two of

them are Guidance and Counseling teachers. There are as many as 6 teachers with a percentage of 20% are in the medium category and 2 teachers with a percentage of 7% are in the low category. In other words, it can be said that almost all teachers at SMA Negeri 1 Palas understand well how to design follow up in PFA disaster preparedness. This is evidenced that none of the 2 teachers who were the research subjects had low scores, related to design follow up in PFA disaster preparedness.

Discussion

Teachers' knowledge of pfa disaster preparedness at SMA Negeri 1 Palas in South Lampung

Based on the results of data analysis that has been carried out, it is known that the scores obtained by 30 teachers as subjects, there are 14 teachers or 47% who are included in the high category, 15 teachers or 50% are in the medium category, and 1 teacher or 3% low category of PFA Disaster Preparedness. These results proved that most of the teachers of SMA Negeri 1 Palas have fairly good knowledge about PFA Disaster Preparedness. However, there is still a need to increase in understanding for some teachers regarding the scores.

The findings of this study are supported by research by Palupi, et al (2019) which found that the level of teacher preparedness in terms of disaster knowledge in Klaten residence was high. This is because Klaten goverment already have a policy regarding disaster materials that must be implemented at schools in the Klaten Regency. Widiastuti et. al. (2020) also found that the knowledge in disaster preparedness of teachers in middle school and high school in South Lampung was relatively high. Marlyono and Nandi (2018) said that the location influence the knowledge among the residence. The location of the school which is easy to access also give good effects for the teacher. Some of them can get the knowlege and skill in PFA disaster preparedness, either from teacher's training or study by themself as the internet access is easy and fast.

This percentage figure indicates that there are still some teachers who do not understand disaster knowledge well. Therefore, with a good and sufficient trainings can help them forming the right knowledge and also skill in reducing disaster risk. Good knowledge can influence attitudes and care in disaster preparedness. According to Kurniawati and Suwito (2019), knowledge is the main and key factor for preparedness. In this disaster case, the school becomes one of the important factors for disaster risk prevention or management if the level of knowledge possessed by the teacher. In this case, school plays an important role in providing knowledge of PFA disaster preparedness for the school community considering that schools are the source of knowledge (Hafida, 2018).

Teachers who fall into the medium and low categories need more attention from the school to increase the knowledge of teachers so that they more fully understand the knowledge of PFA disaster preparedness. For this reason, efforts that can be made are for these teachers to take part in training and briefing on disaster management and how to reduce disaster risk as an effort to improve the preparedness of school residents (Setyowati, 2019).

If previously the initial response to disasters was still focused on finding missing victims, providing first aid and restoring menatl and physical health is now a priority. Interventions that also need to be considered in this research is the fulfillment of the psychological needs. Students need to be always in a good psychological well-being. This can be realized through the role of teachers in schools who should provide activities that can help reduce or prevent risks to them and the surrounding environment (INEE, 2010). One of the skills in the process of helping recovery in crisis conditions is a form of crisis intervention as in disaster called Psychological First Aid (PFA). Psychological First Aid (PFA) is a basic action that is given as soon as possible. This action may not only be performed by an expert, but any individual who has attended training can help to carry out this kind of therapy to others. A teacher in a school can have this important role as supporting figures for students.

In the education sector, everyone has the right to receive training and skills regarding disaster risk reduction efforts, both in non-disaster situations and potentially disaster situations (Setyowati, 2019). Referring to

the importance of skills in disaster preparedness that must be possessed by teachers and students, SMA Negeri 1 Palas needs to create a strategy for implementing PFA skills properly. This is intended as an effort to manage the disaster risks, such as threats and vulnerabilities in dealing with the impacts of the disasters. Previous studies that lead by Xia et al. (2016) and also by Kaufman et al. (2017) explained that there were same simulations or activities that could increase the awareness in disaster preparedness. The simulations given must improve the teamwork, problem-solving, and confidence to actively take some roles in dealing with disasters.

Conclusion

Based on the result of data analysis, then it can be concluded that the knowledge level of PFA disaster preparedness on teachers of State Senior High School (SMAN) 1 Palas South Lampung is at high category with percentage 47%, at moderate category of 50%, and the low category of 3%. In other words the teachers already know the concept of knowledge of disaster preparedness concerning their task in giving information about the disaster preparedness to students. Thereby, the school needs to make strategy of implementing and increasing the PFA disaster preparedness. It could be coordinated by the Guidance and Counseling Teacher related to increase the skill of PFA disaster preparedness at school.

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