Proceeding of The International Conference on Health Sciences (TICHes)
Vol 3, No 3 (2024) Print ISSN 9772722511 Online ISSN 3026-3689

O-04

IMPROVING KNOWLEDGE AND BEHAVIOR TOWARDS EARTHQUAKE DISASTER PREPAREDNESS FOR PRIMARY SCHOOL STUDENTS THROUGH ANIMATED VIDEOS

[1)]Erni Buston, [2)]Pauzan Efendi, [3)]Widia Lestari, [4)]Yulistia Pradini
[1,2,3)] Health Polytechnic Ministry of Health Bengkulu/
Applied Bachelor Students/ Bengkulu City
[4)]Bayangkara Hospitals/ Bengkulu City

ABSTRACT

Natural disasters cause many negative impacts on people's lives, including the number of fatalities, loss of property, environmental damage and disruption of the psychological function of victims of natural disasters. With this disaster, in the future it is necessary to increase community capacity in preparing for natural disasters. In addition to the community increasing knowledge of disaster preparedness must also be obtained as early as possible. Therefore, community service activities are needed to increase children's knowledge and behavior regarding earthquake disaster preparedness. The methods used in the service are lecture, demonstration and simulation methods which are carried out from July to September 2023. This activity is carried out at the Lempuing area elementary school, namely SD N 38 Bengkulu City with a total of 50 students. The results obtained were that there was a significant increase in knowledge and behavior after pre and post training was carried out for students. So this positive result has the hope that every student will be able to prepare themselves to face earthquake disasters from an early age. Future recommendations are that this service activity can be carried out in elementary schools in other areas.

Keywords: Community Service, Disaster Preparedness, Earthquake, Students

INTRODUCTION

Based on laws of the Republic Indonesia number 24 of 2007 about disaster management, disasters are a series of events that threaten and disrupt people's lives and livelihoods caused by natural and non-natural factors as well as caused by human factors. It can result in casualties, environmental damage, property loss, and psychological impacts. In general, the factors that cause a natural disaster to occur are due to the interaction between threat (hazard) and vulnerability (Maharani, 2020). Bengkulu Province is one of the provinces that is also prone to disasters. This province is located in the southwest coastal area of Sumatra Island which directly faces the Indian Ocean. The process of continuous tectonic movement can cause to have a high risk of earthquake and tsunami disasters. Data from BPBD Bengkulu City, states that many schools in Bengkulu which are located on the coast are vulnerable to earthquakes and have the potential for tsunamis, such as SMP Negeri 12 Kota Bengkulu, SD Negeri 38 Kota Bengkulu, SD Negeri 04 Kota Bengkulu, SMP 07 Kota Bengkulu, and SD Negeri 08 Bengkulu City (BPBD Bengkulu City, 2020). The most recent earthquake that occurred in Bengkulu was on November 29 2020 with a magnitude of 5.1 (BMKG, 2019).

It cannot be denied that the occurrence of natural disasters causes many negative impacts on people's lives, including the occurrence of many fatalities, loss of property, environmental damage, and disruption of the psychological function of victims of natural disasters (Rahmat & Alawiyah, 2020). Based on data from BNPB in 2020, it was found that 370 victims of natural disasters died, 39 people went missing and 536 people were injured. Not only that, many houses, offices and facilities were damaged due to natural disasters that occurred (BNPB, 2020). The large number of victims and damage caused by earthquakes will

threaten and disrupt the continuity of life for individuals, families and communities. This is due to a lack of knowledge about disasters and disaster preparedness as well as a low level of awareness about disaster preparedness.

The activities were carried out at an elementary school in the Lempuing area because it is in a coastal area and based on the disaster index issued by the Indonesian Center for Volcanology and Geological Disaster Mitigation, this area is a very vulnerable and vulnerable area to disasters. So the aim of community service activities is, namely to increase children's knowledge and behavior regarding earthquake disaster preparedness.

METHOD

The method of community service activities is in the form of lectures, demonstrations and simulations which will be carried out in July – September 2023 with a target of 54 students at SD N 38 Bengkulu City, Lempuing Region. The stages of community service activities begin with a preparation stage in the form of coordination with government institutions, the community and youth organizations where the activity takes place. Followed by the implementation stage. Delivery of material using lecture methods, discussions, showing SIBETA animations followed by simulations and training in the form of earthquake preparedness. The final stage is evaluation and monitoring of preparedness simulations in facing earthquake disasters

RESULT

This community service activity begins with filling in biodata to obtain data on respondents' characteristics and a pre-test to measure the level of youth knowledge about emergency first aid and the use of ambulances. After that, material was provided in the form of education about emergency first aid and the use of ambulances by the Bengkulu Ministry of Health Poltekkes team using power point media which was displayed monitored via a projector and using pocket book media that had been prepared and distributed to participants. The following is an overview of the results of data collection on training participants:

1. UNIVARIATE ANALYSIS

Table 1. Characteristics Based on Age and Occupation of Parents

No	Variable	Result
1	**Age**	
	Mean	10.63
	Min	10
	Max	12
	SD	0.345
	SE	0.068
	CI 95%	10.81-11.04
2	**Parents Occupation**	
	Civil servants	15 (27.7%)
	Self-employed	29 (53,7%)
	Private	10 (18.5%)

Table 1 illustrates the age characteristics of training participants in the range 10-12 years, with the lowest age being 10 years and the highest age being 12 years. The mean age of respondents was 10.63 years. Describes the characteristics of parents' work. Most of the 53.7% of parents are self-employed.

Table 2. Average knowledge and behavior of participants

Knowledge	N	Mean	SD	Min – Max	CI
Pre test	54	86.56	11.825	40-100	83.33 – 89.78
Post test	54	91.33	6.513	74-100	89.56 – 93.11

Table 2 shows that the average value of knowledge and behavior regarding earthquake preparedness before was 86.56 and after it was 91.33.

2. BIVARIATE ANALYSIS

Tabel 3. The Differences in participants' knowledge and behavior before and after training

Variabel	Mean	SD	P value	N
Pre Test	86.56	11,825	0,000	54
Post Test	91.33	6.513		

Table 3 shows the results of statistical analysis that the mean knowledge in the first measurement before training is 86.56 with a standard deviation of 11.825. In the second measurement after training, the average knowledge was found to be 91.33 with a standard deviation of 6.513. The results of statistical tests obtained a p value of 0.000, so it was concluded that there was a significant difference between knowledge and behavior before training and after training

DISCUSSION

This community service found that there was an effect of using video media on people's knowledge, where there was a difference in average knowledge before and after training. The

impact of education on knowledge and attitudes about regarding earthquake preparedness was quite significant. In the last decade, the use of technology, especially audiovisual media technology, has been an important factor in achieving improved learning. As technology and audiences evolve, cross-disciplinary teaching methods and practices are implemented, in addition to providing knowledge itself. Children are naturally curious and enjoy paying attention to other people for several reasons. First, it allows them to see something new and learn how it works, which can spark their imagination and creativity. Video-based learning is better than text because it improves retention, brand recall, and memory. Some key takeaway points: Since videos are more engaging, people are more likely to stay on a video longer than they are on a text page. Our minds are naturally built to process visual information. To that point, researchers have determined the human brain processes visuals 60,000 times faster than text. Therefore, not only does video content connect with your audience at a deeper level, but also does it far faster than text. With videos, one can use visuals and sound to make the point more effectively. Video learning media can facilitate understanding and strengthen memory, and cultivate students' interest and can provide the relationship between the content of the subject matter with the real world. Video learning has positive outcomes on multiple levels, including increased motivation and deeper learning, and can specifically impact students' ability to facilitate discussions and identify problems. This resultis in line with the theory of Notoatmodjo (2012) which states that attitude is a person's response which includes the emotions involved (agree, disagree, good or bad).

CONCLUSIONS AND SUGGESTIONS

After carrying out community service activities, there was an increase in children's knowledge and behavior after taking part in disaster preparedness training, especially earthquakes. So that students are able to prepare themselves to face earthquake disasters. It is hoped that earthquake disaster preparedness activities will not be carried out just once, but will be carried out regularly and can be carried out in elementary schools in other areas.

REFERENCES

1. Amri, M. R., Yuliani, G., Yunus, R., & Wiguna, S. (2016). *Risiko Bencana Indonesia* (R. Jati & M. R. Amri, Eds.). Jakarta: Badan Nasional Penanggulangan Bencana (BNPB).
2. Andi. Latifa, H. L., Untari, M. A., & Ardiyanto, A. (2020). Keefektifan media video animasi mitigasi bencana dengan model pembelajaran problem based learning terhadap hasil belajar peserta didik kelas v sd n kaliurang 01 kabupaten magelang. Indonesian Journal of Elementary and Childhood Education , 89-98.
3. BNPB, BPS, & UNFPA. (2013). *Pilot Survei Pengetahuan, Sikap & Perilaku Kesiapsiagaan Menghadapi Bencana Kota Padang 2013*. Jakarta.
4. BNPB. (2016). Data dan Informasi Bencana Indonesia.
5. Daud, R., Sari, S. A., Milfayetty, S., & Dirhamsyah, M. (2014). Penerapan pelatihan siaga bencana dalam meningkatkan pengetahuan, sikap, dan tindakan komunitas sma negeri 5 banda aceh. Jurnal Ilmu Kebencanaan (JIKA) , 26-34.
6. Dien, R. J., Kumaat, L. T., & Malara, R. T. (2015). Pengaruh penyuluhan kesehatan terhadap kesiapsiagaan menghadapi bencana gempa bumi pada siswa smp kristen kakaskasen kota tomohon. e-Journal Keperawatan , 1-7. Effendy, D. N. (1998). Dasar- dasar keperawatan kesehatan masyarakat. E/2. Jakarta: EGC.
7. Havwina, T., Maryani, E., & Nandi. (2016). Pengaruh pengalaman bencana terhadap kesiapsiagaan peserta didik dalam menghadapi ancaman gempabumi dan tsunami (Studi kasus pada SMA Negeri Siaga Bencana Kota Banda Aceh). Jurnal Pendidikan Geografi , 1-8.
8. Husna, C., Hafni, M., Fithria, & Jannah, S. R. (2019). Efektivitas edukasi mitigasi bencana

terhadap kesiapsiagaan bencana gempa bumi dan tsunami pada keluarga pasien di rumah sakit. Idea Nursing Journal , 1-22. Khambali, I. (2017). Manajemen penanggulangan bencana. Yogyakarta:

9. Maharani, N., & Andika, K. A. (2020). Tingkat pengetahuan siswa tentang kesiapsiagaan bencana gempa bumi di smpn 3 kuta selatan badung provinsi bali. Journal of Science Education , 32-38.
10. Pramono, S., & Yusuf, M. (2015). Implementasi penanggulangan bencana berbasis masyarakat (Studi Pengembangan Penanggulangan Bencana Desa Tangguh di Desa Boboh Kecamatan Menganti). Jurnal Ilmu Administrasi , 137-150.
11. Saparwati, M., Trimawati, & Wijayanti, F. (2020). Peningkatan pengetahuan kesiapsiagaan bencana dengan video animasi pada anak usia sekolah. Pro Health Jurnal Ilmiah Kesehatan , 23-28.
12. Sianturi, E., Pardosi, M., & Surbakti, E. (2019). Kesehatan masyarakat. Taman - Sidoarjo:
13. Supartini, Y. (2004). Konsep dasar keperawatan anak. Jakarta: EGC. Ulum, M. C. (2014). Manajemen bencana. Malang: UB press.
14. Zifatama Jawara. Suciana, F., & Permatasari, D. (2019). Pengaruh edukasi audio visual dan role play terhadap perilaku siaga bencana pada anak sekolah dasar. Journal of Holistic Nursing Science , 44-51.