

Health Education Regarding Community Flood Disaster Mitigation in Lepo-Lepo Village

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Abstract

Community-based natural catastrophes are recurring phenomena that consistently evoke a sense of danger and disturb the normal course of life. Flooding is a recurring natural calamity that poses a constant danger to communities. Communities situated in the lower reaches of the river will experience a constant sense of vulnerability. Hence, it is important to provide information on flood catastrophe mitigation. The objective of community service is to enhance the community's understanding of disaster mitigation in Lepo-Lepo hamlet. Approach: In order to assess the state of the Lepo-Lepo village located along the Wanggu river, a community service initiative was conducted targeting the older population. This effort was a joint partnership between the Lepo-Lepo village council and the Lepo-Lepo health facility. This activity involved assessing the respondents' knowledge before receiving education, followed by providing education on disaster mitigation through the use of leaflets and PowerPoint presentations. Subsequently, a questionnaire on disaster mitigation was administered again after the education session to measure knowledge levels post-education (post-test). Outcome: Following the provision of health education, participants demonstrated comprehension of the supplied content, and their knowledge level was classified as satisfactory. It is expected that this health education program would provide advantages to all individuals in the Lepo-lepo hamlet, with a particular focus on the elderly who are more susceptible to harm. Conclusion: The provision of health education via community service activities may enhance the elderly's understanding of flood catastrophe prevention. It is advisable for relevant parties to consistently provide educational programmes to the community on catastrophe mitigation.

Keywords: Disaster mitigation; flood; elderly; knowledge

Abstrak

Pendahuluan: Bencana alam yang sering terjadi pada lingkungan masyarakat merupakan kejadian yang selalu membuat masyarakat merasa terancam dan mengganggu kehidupan. Salah satu bencana alam yang selalu mengancam masyarakat yaitu banjir. Masyarakat yang berada pada wilayah hilir sungai akan merasa terancam setiap saat. Oleh karena itu perlu diberikan pengetahuan tentang mitigasi bencana banjir. Tujuan pengabdian masyarakat adalah untuk meningkatkan pengetahuan masyarakat tentang mitigasi bencana pada masyarakat di kelurahan lepo-lepo. Metode: melihat keadaan kelurahan lepo-lepo yang dilewati aliran sungai wanggu maka dilaksanakan pengabdian kepada masyarakat rentang (lansia) yang bekerjasama dengan pemerintah kelurahan lepo-lepo bersama puskesmas lepo-lepo. Pada kegiatan ini dilakukan pengukuran pengetahuan responden sebelum dilakukan edukasi dan tahap selanjutnya pemberian edukasi tentang mitigasi bencana melalui media leaflet dan power point setelah itu

kembali dilakukan pemberian kuesioner tentang mitigasi bencana untuk mengukur pengetahuan setelah dilakukan edukasi (post test). Hasil: setelah diberikan edukasi kesehatan peserta mampu memahami materi yang disampaikan dan tingkat pengetahuan peserta termasuk kategori baik. harapan dengan adanya pendidikan kesehatan ini dapat memberikan manfaat kepada semua masyarakat dikelurahan Lepo-lepo khususnya kelompok rentan lansia. Kesimpulan: Kegiatan pengabdian kepada masyarakat dengan memberikan pendidikan kesehatan dapat meningkatkan pengetahuan lansia tentang mitigasi bencana banjir. Sehingga disarankan kepada pihak terkait untuk selalu memberikan edukasi kepada masyarakat tentang mitigasi bencana. Adapun target luaran dari pengabdian ini yaitu jurnal sinta 3-5.

Kata Kunci: Mitigasi bencana; banjir; lansia; pengetahuan

INTRODUCTION

Disasters are events or series of events that threaten and disrupt people's lives and livelihoods caused by natural and/or non-natural factors and human factors, resulting in human casualties (Law No. 24/2007 on Disaster Management). The impact of disasters can be felt by everyone, but the impact can be felt more by vulnerable groups than other community groups (BNPB, 2016). Natural disasters will cause damage and losses and have an impact on the psychology of disaster victims (Narayana et al., 2022). According to Government Regulation Number 21 of 2008 concerning the Implementation of Disaster Management the elderly are one of the groups vulnerable to disasters (BNPB, 2008).

According to the WHO in the Southeast Asia region, the elderly population is around 8% or around 142 million people. By 2050 it is predicted that the elderly population will increase by 3 times. In 2020, the number of elderly reached 28.8 million (11.34%) of the total population (Indonesian Ministry of Health, 2020). The elderly are one of the range groups in natural disasters that must receive special attention (Sakina et al., 2021).

Sedimentation problems, especially in large rivers in Indonesia, are a serious concern, especially rivers that cross cities such as the Wanggu River in Kendari City, Southeast Sulawesi Province. According to Maddi et al (2021), the problem of flooding in the Wanggu River is caused by changes in land use, greater flood discharge, the non-optimal performance of the flood control system, partial and short-term flood management, and reduced river storage capacity due to sedimentation. Floods that occurred in Kendari city in 2013 resulted in 2,300 residents being displaced. In a press statement received by Kompas.com, Wednesday (17/7/2013), the Head of the Data Information and Public Relations Center of BNPB, Sutopo Purwo Nugroho, said that the flood occurred since Monday (15/7/2013) and hit 64 villages in 10 sub-districts in the capital of Southeast Sulawesi Province. Historically flood-prone areas are spread across 10 sub-districts in the city of Kendari, consisting of 30 villages with a total area of 635,251 ha. One of the areas most frequently affected by floods in Kendari city is the Wanggu river basin. Land use change in the Wanggu River Watershed has resulted in increased erosion and sedimentation due to reduced rainwater catchment areas (Alwi & Marwah, 2015). The Wanggu River Watershed experienced a decrease in infiltration ability which increased the volume of surface flow (Alwi, 2011). This is characterized by the growth of grass and shrubs in the upper Wanggu River watershed which are unable to retain water during the rainy season (Maddi et al., 2021). This has an impact on the flow of flow downstream simultaneously, which has the potential for flooding in downstream areas that contribute to sedimentation in the lower reaches of the river in Kendari Bay.

One of the efforts to overcome the impact of flood disasters that occur by mitigating flood disaster preparedness, including flood disaster mitigation in the elderly range group. Mitigation is an effort to prevent and minimize the impact that will be caused by disasters. (Darmawan et al., 2020). Disasters in the elderly can have an impact on physical, mental, and social aspects, therefore the elderly group in flood disasters is a range group that requires special attention.

Based on the initial survey, it was found that the lepo-lepo neighborhood is a wanggu river basin that is often affected by flooding during the rainy season. Therefore, it is necessary to conduct education to reduce the impact and risks that occur due to flooding, so that many victims will be reduced. Based on the above data, group 1 is interested in making a paper to conduct health education on flood disaster mitigation in the elderly range group in Lepo-lepo village, Baruga sub-district, Kendari city.

METHODS

STIKes Karya Kesehatan professors, together with students, collaborated with the Lepo-lepo village administration and the Lepo-lepo Puskesmas to carry out a community service project. The activity took place on 20 July 2023 at the Lepo-lepo village office. This is a community service activity. The operation was conducted in the hamlet of Lepo-lepo because to its location inside the Wanggu river watershed basin. Community service is conducted for a length of 60 minutes every day. The population being studied in this endeavour consists of the elderly residents of Lepo-Lepo Village. There were 40 senior individuals included in the sample. This project aims to give health education on community flood catastrophe mitigation specifically targeting the older population in Lepo-Lepo hamlet. A 60-minute community service was conducted at Lepo-lepo hamlet, Baruga sub-district, Kendari city, lasting for one day. The population being studied in this endeavour consists of the older individuals residing in Lepo-Lepo Village. The study included a cohort of 38 older individuals. This project aims to provide health education on community flood catastrophe mitigation specifically targeting the older population in Lepo-Lepo hamlet. Prior to the implementation of the educational programme, the participants were administered a pre-test questionnaire to assess their understanding of disaster mitigation. Subsequently, they received instruction on disaster mitigation via the use of PowerPoint presentations and informational pamphlets. Following the educational intervention, a post-test was conducted to examine the participants' knowledge once again.



Figure 1. Flowchart of Community Service

RESULTS AND DISCUSSION

The implementation of community service carried out on July 20, 2023, which was held at the lepo-lepo village office hall went smoothly. The implementation of this activity was attended by 38 elderly people as well as the village and health center. This activity consists of three stages. The first stage is the preparation stage consisting of preliminary studies, coordination with the government and health centers, as well as preparation of instruments and time contracts with respondents. The second stage of implementation consisted of three sessions, the first session was the distribution of questionnaires containing knowledge about disaster mitigation (pre-test) which lasted for 15 minutes. The second session provided material using leaflets and powerpoint media with a question-and-answer session which lasted for 60 minutes. The third session provided a questionnaire to be filled in again (post-test). The next activity is a group photo between lecturers, the health center, the lepo-lepo village government, respondents, and students.

Table 2. Distribution of elderly vulnerable group participants by gender

No	Gender	n	%
1	Male	9	23,7
2	Female	29	76,3
Total		38	100

Respondents who participated in community service were mostly female 29 (76.3%) with an age range of 48 to 75 years

Table 3. Distribution of respondents based on knowledge of the elderly knowledge about flood disaster mitigation pre-test and post-test results

No.	Knowledge category	Pre-test	Post-test
1	Good	6 (15,78%)	38 (100%)
2	Simply	32 (84,22%)	0 (0%)
Total		38 (100%)	38 (100%)

The findings indicated a considerable improvement in respondents' understanding of disaster mitigation. Before the test, the majority of respondents had adequate knowledge, with 32 individuals (84.22%) falling into this category, while 6 respondents (15.78%) had strong knowledge. The respondents' level of knowledge is evident in the questionnaire results. The majority of respondents lack knowledge regarding the steps of disaster mitigation, the negative impact of disasters on health, and the protection of vulnerable groups affected by disasters. However, after receiving education, all respondents demonstrated a significant improvement in their knowledge, with 38 individuals (100%) achieving a good level of understanding. However, the post-test results indicate that 38 elderly individuals participated in the test, with an average score of 79. The results show that the elderly vulnerable group's knowledge on flood disaster mitigation improved to a satisfactory level after receiving material and information. This demonstrates that the participants possess the ability to comprehend the offered content, and their degree of knowledge falls within the "good" group. This health education program aims to provide advantages to all communities residing in Lepo-lepo village, with a particular focus on the vulnerable senior population. This is under the results of the study which show that statistically there is an effect of counseling on flood preparedness on the knowledge and attitudes of family heads in dealing with floods with a significance value of $p=0.000$. Knowledge is one of the supporting factors for preparedness which affects the attitude and concern of the community in anticipating disasters (Shodiq et al., 2022). The level of knowledge and attitude of the head of the

family before being given counseling was mostly in the poor category, namely 56.8% and 54.1% (Saragi, 2022). Increased understanding can lead to a response to community preparedness in the face of flood disasters (Rahma & Yulianti, 2020).

CONCLUSION

Community service activities by providing health education can increase the knowledge of the elderly about flood disaster mitigation. So it is recommended that related parties to increase education to the community about disaster mitigation.

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