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INCREASING THE CAPACITY OF FISHERMEN IN HANDLING DROWNING VICTIMS IN THE COASTAL BEACH AREA

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ABSTRACT

Introduction: Fishermen often face extreme climates and weather that are life-threatening when at sea. The lack of knowledge of fishermen about first aid for drowning victims can increase the death rate due to drowning. This community service activity aimed to increase the knowledge and skills of fishermen in providing first aid to drowning victims.

Methods: This community service was carried out on 30 fishermen who live in the Coastal Area of Paciran Village, Lamongan Regency. The method used is through education and training which includes health promotion and training for drowning victims. Education activities are carried out directly to fishermen with the theme of handling drowning victims. The training materials provided to fishermen are basic life support and handling choking victims. The training is carried out through lectures, demonstrations - simulations and discussions.

Results: Fishermen's knowledge before the activity was 6 people (20%) in the poor category, 10 people (33.3%) in the sufficient category, and 14 people (46.7%) in the good category. While knowledge after the activity 1 person (3.3%) had poor knowledge, 2 people (6.7%) in the sufficient category, and 27 people (90%) in the good category. The pre-test and post-test results showed an increase in fishermen's knowledge about first aid for drowning victims.

Conclusion: Increasing the capacity of fishermen in providing first aid to drowning victims can be done through health education and training. Training activities can be integrated into fishermen's programs or activities so that fishermen's capacity will be more optimal.

KEYWORDS

drowning victims; first aid; fishermen; health promotion.

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1. INTRODUCTION

The geographical conditions of Indonesia have various islands with long coastlines where the majority of coastal residents utilize the potential of the sea as a daily livelihood (Faradisi et al., 2021).. Lamongan Regency, located on the coast of Java Island, has a lot of marine potential where most of the coastal residents make a living as fishermen (Bhaskoro & Mustain, 2020). Fishermen often face extreme climates and weather that are life-threatening when at sea. The lack of knowledge of fishermen regarding first aid for drowning victims can increase the death rate due to drowning (Asman et al., 2023).

The death rate from drowning is very high, causing 236,000 deaths each year, of which 90% occur in low- and middle-income countries (World Health Organization (WHO), 2023). Drowning is the third leading cause of unintentional injury death, accounting for 7% of all injury-related deaths. Deaths from drowning in water represent 28% of the world's annual death toll (FEDERATION, 2006). In 2016, there were 3.3 per 100 thousand people the incidence of drowning cases in Indonesia (Rizeki Dwi Fibriansari, Arista Maisyaroh, 2022). Most cases of drowning occur in areas where the majority of people work in the water (Sugiantoro & Wahyudi, 2021). One case of a fishing boat drowning in Lamongan occurred in August 2022 where a fishing boat containing 17 crew members had to drowning in the waters south of Bawean Island due to strong winds and large waves on their way home from fishing at sea (Sudjarwo, 2022). The main risk factors for drowning are male sex, age younger than 14 years, alcohol consumption, low income, poor education, rural residence, water exposure, risky behaviors, and lack of supervision (Szpilman et al., 2012).

Initial treatment for drowning at the scene includes rescuing the victim from the water, providing rescue breathing, chest compressions, cleaning vomit that can block the airway, preventing loss of body heat, and transporting the victim to the nearest emergency facility for evaluation and monitoring (Faradisi et al., 2021). Emergency medical care is an important part of preventing death from drowning (Hossain et al., 2020). According to WHO, the survival of a drowning victim depends on how quickly the person is rescued from the water, and how quickly appropriate resuscitation is performed (World Health Organization, 2014). The purpose of this community service is to improve the ability of fishermen in the Coastal area of Paciran Village, Lamongan Regency in providing first aid to drowning victims.

2. MATERIAL AND METHODS

The implementation method used in this community service activity is through education and training for 30 Fishermen of Paciran Village, Lamongan Regency. The activity was carried out not only by the implementer but also by partners, the Fishermen Coordinator and the Head of Paciran Village. This activity was provided by lecturers from the Faculty of Nursing, Airlangga University with certified Critical and Emergency Nursing expertise. The activities in this community service that have been carried out are the provision of materials and training in basic life support at the Paciran District Office. The details of the activities are as follows:

First Aid Education for Drowning Victims

Lecturers of the Faculty of Nursing, Airlangga University provide education on first aid for drowning victims. The material presented is related to basic life support and handling of choking victims. The media used in educational activities are power-points, leaflets, and learning videos. The presenters deliver the material using a discussion method accompanied by questions and answers with training participants.

First Aid Training for Drowning Victims

The next step provided by the community service team is to train fishermen on how to give first aid to drowning victims. The topic covered in this training is basic life support, including how to perform cardiopulmonary resuscitation and provide first aid for choking victims. This training employs demonstration and role-play methods. The materials used include a training tool in the form of a mannequin. The training includes examples of drowning victim scenarios and teaches how to respond to or administer first aid to these victims. Training participants are encouraged to practice performing cardiopulmonary resuscitation and first aid for drowning victims under the guidance of the trainer.

Measuring the success of community service regarding first aid training was conducted using a pre-test and post-test questionare. The pre-test is conducted by providing questions to be filled in by participants. before done education, whereas post test done on end session delivery educational program. The question form aims to explore participants' knowledge about help First on victim drowning And choked And belief self to ability to provide first aid to drowning and choking victims. Form contains 10 questions in true and false form about first aid in victims of drowning and choking.

3. RESULTS

Community service activities were carried out on 30 fishermen in Paciran Village, Lamongan Regency. The community service team provided education on managing drowning victims. The activity was continued with training in basic life support or first aid for drowning victims (Figure 1 and 2). Evaluation of the success of the activity was carried out through a pre-post test questionnaire. From the evaluation results, it was found that students' knowledge of first aid for drowning victims before the activity was 6 people (20%) in the poor category, 10 people (33.3%) in the sufficient category and 14 people (46.7%) in the good category. While knowledge after the activity was 1 person (3.3%) had poor knowledge, 2 people (6.7%) in the sufficient category and 27 people (90%) in the good category (Table 1). The results of the pre-test and post-test showed an increase in fishermen's knowledge of first aid for drowning victims. The results of the skills training in providing first aid to drowning victims are that the majority of fishermen are able to provide basic life support which includes cardiopulmonary resuscitation and handling drowning victims according to procedures.

4. DISCUSSION

First aid training for drowning victims can improve fishermen's knowledge and skills in providing basic life support to drowning victims. This is in line with the results of Aulia et al.'s research on coastal fishermen which showed an increase in fishermen's knowledge and skills in providing first aid. The results of counseling and training on First Aid for drowning victims showed that the majority of participants' knowledge and skills improved, and an Emergency Response Community Forum was formed that had never existed before. It is hoped that trained fishermen can play a role if there is an emergency (drowning victims) (Asman et al., 2023). Fishermen's

Table 1. Level of Knowledge of Fishermen in Paciran Village Before and After

Category	Pre-test		Post-test	
	f	%	f	%
Not enough	6	20	1	3.3
Enough	10	33.3	2	6.7
Good	14	46.7	27	90
Total	30	100	30	100

Figure 1. Health Promotion Handling of Drowning Victims

Figure 2. First Aid Training for Drowning Victims for Fishermen on the Lamongan Coast

representatives are used as first aid cadres. First Aid Cadres are a group of fishermen who have an active role in improving the knowledge and skills of fishermen, especially in handling drowning victims. Cadres have the main task as a community empowerment group in the health sector (Indonesia, 2019). The role of first aid cadres in providing basic life support is expected to be an effort to overcome drowning victims more quickly and precisely so that it can increase the life expectancy of drowning victims (Nurdin et al., 2023).

Basic Life Support (BLS) is an effort made to maintain life when a patient or victim experiences a life-threatening situation (Pangaribuan et al., 2018). BHD or Basic Life Support (BLS) is an emergency action taken to clear the airway and maintain blood circulation without using assistive devices for patients who experience cardiac arrest, respiratory arrest, or airway obstruction. This skill includes several components that can be taught to the community and not Cardiopulmonary Resuscitation (CPR) in BLS is carried out with the aim of increasing blood circulation to vital organs to prevent cessation of circulation and respiration which can cause death (Ganthikumar, 2016). The International Life Saving Federation states that the main thing in the general guidelines for the chain of survival in handling drowning victims is to provide basic life support (FEDERATION, 2014).

Early basic life support contributes to successful treatment and should be given as soon as possible (Szpilman et al., 2012). Once on land, victims should be placed on their backs, with their torso and head at the same level, and checked for responsiveness and normal breathing. If unconscious but breathing, the recovery position should be used.25,32 If not breathing, ventilation is essential (Truhlář et al., 2015) (Baker & Webber, 2011). Hypoxia is the leading cause of cardiac arrest in drowning and requires immediate treatment (Vanden Hoek et al., 2010).

First aid training using the simulation method for fishermen in one of the Districts of Lumajang Regency has a positive impact on knowledge and skills in providing first aid to drowning victims. The results of the training showed differences in the abilities of fishermen before and after training using the simulation method. An effective simulation method can teach someone to easily understand new knowledge (Rizeki Dwi Fibriansari, Arista Maisyaroh, 2022). Likewise, health education regarding the first treatment of sea water drowning victims will affect the knowledge and attitudes of fishermen in providing first aid (Rizka et al., 2023).

5. CONCLUSION

Education and training in first aid for drowning victims can improve the capacity of fishermen in providing first aid to drowning victims. Early handling can increase the chances of the victim being saved. Fishermen can improve their capacity by repeating the training that has been obtained in routine fishing activities.

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