Original Research Article Outline:

TRIAGE TRAINING ON TABLETOP DISASTER EXERCISE (TDE) INCREASE THE ABILITY TO IDENTIFY VICTIMS OF FLOOD DISASTER IN ADOLESCENTS

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ABSTRACT

Introduction. The ability to identify flood victims in Indonesia is still low, therefore efforts to improve the ability to identify victims in adolescents must be improved. Triage training based on Tabletop Disaster Exercise (TDE) will make it easier for adolescents to understand disaster scenarios. This study aims to determine triage training on tabletop disaster exercise (TDE) to increase the ability to identify victims of flood disasters in adolescents. **Method.** The research design used in this study was a pre-experiment with a one-group pre-post test design. The population of 30 people was selected using a simple random sampling technique to obtain 28 respondents. **Results and Analysis.** The independent variable is Triage training and the dependent variable is the ability to identify disaster victims as measured using the chi-square test. The analysis in this study used the Chi-Square Test with a significance level of $\alpha = 0.05$ and the processing was carried out using SPSS software version 26.0 for Windows, obtaining the Asymp Sig. Value. = 0.000. So $p = 0.000 < 0.05$ then H1 = accepted. **Discussion**. Based on this analysis meaning that there is a triage training on tabletop disaster exercise (TDE) to increase the ability to identify victims of flood disasters in adolescents.

Keywords: Adolescent; Flood Disaster; Identification Skills; Triage Training.

INTRODUCTION

The high impact of natural disasters such as floods is still quite a concern. Reducing the number of fatalities is one of the government's priority programs in disaster management. Seeing the magnitude of the impact of the disaster that occurred, especially the loss of life, an effort is needed to overcome it, as a form of our shared responsibility in reducing the risk, both the government, society, academics, and practitioners in providing ideas to reduce the impact of the disaster towards a society or village that is resilient to disaster through community service activities. The community is expected to have the ability to identify disaster victims adequately (Yu & Coffey, 2024).

Disaster victim identification is a form of effort to recognize or determine the identity of someone who is experiencing difficulties or has died due to a disaster. Identification is more emphasized on efforts to prepare emergency response activities quickly and accurately. Currently, the ability to identify disaster victims among adolescents in Indonesia is still low. This shows that efforts to improve the ability to identify disaster victims among adolescents are an important shared agenda which is an effort and responsibility of community members and community stakeholders (Sadiq et al., 2023).

According to WHO *(World Health Organization)* a disaster is an event that causes destruction, damage to the environment of living things, many fatalities, and a decrease in a certain level of health and requires assistance from

outside the community or area where the disaster occurred. According to data from the National Disaster Management Agency (BNPB), from 2015 to 2019, floods were ranked second in the order of natural disasters that often occur in Indonesia. In 2017, disasters recorded 2,175 disasters in Indonesia. The number consisted of 737 floods, 651 tornadoes, 577 landslides, 96 forest and land fires, 19 droughts, 8 tidal waves/abrasions, and 2 volcanic eruptions. According to data from the Central Statistics Agency of East Java Province on October 11, 2019, disasters recorded 473 disasters in East Java Province. The number consists of 5 earthquakes, 99 landslides, 87 floods, 20 droughts, 110 forest and land fires, 145 tornadoes, 7 tidal waves. According to data on Flood Disasters in Lamongan Regency in 2015-April 2019. in 2015 there were 6 Districts (39 villages) 2,159 families, in 2016 there were 11 Districts (83 villages) 8,670 families, in 2017 there were 2 Districts (88 villages) 4,006 families, in 2018 there were 9 Districts (40 villages) 3,921 families, in 2019 there were 6 Districts (35 villages) 3,391 families flooded. The coastal areas of Lamongan Regency are in the "High" category, namely the villages of Sedayulawas, Brondong, Sidomukti, Lohgung, Labuhan, Brengkok, Blimbing, Kandang Semangkon, Paciran, Tunggul and Banjirwati.

According to the Indonesian Institute of Sciences there are several factors that influence the number of disaster victims, namely: knowledge and ability to identify disasters, lack of early warning and preparedness, and lack of community involvement in disaster management, lack of socialization regarding disaster issues, lack of self-warning information resulting in helplessness or inability and unpreparedness in facing disasters (Dohrmann et al., 2024). The impact that will occur if the identification ability is low is causing more severe impacts of flood disasters such as high fatalities, serious injuries, many victims who are displaced and diseases arising from damaged environmental conditions. In improving the ability of adolescents to identify disaster events can be done in various ways, namely counseling, training, *workshops* and others. Training is one alternative choice in improving the ability of adolescents.

Training is a process to acquire knowledge, attitudes, and skills as a result of a person's experience so that it results in behavioral changes (Vaughn, 2005). Training according to Mangkuprawira (2013) is a process of teaching certain knowledge and skills and attitudes so that a person becomes more skilled and able to carry out responsibilities better, in accordance with standards. Methods in training include simulations, Small Group Discussions (SGD), and others.

Triage is a process of classifying patients based on the type and severity of their condition. *Triage* is also defined as an act of grouping patients based on the severity of the injury that is prioritized for the presence or absence of disturbances in *the airway* (A), *breathing* (B), and *circulation* (C) by considering facilities, human resources and the probability of survival of the patient (Jankielsohn, 2024). Efforts to reduce disaster risk are community-based disaster management by strengthening the ability to identify disaster victims, one of which is by using the simulation method. *Tableop Diseaster Exercise* (tTDE) can be used as a teaching method with the assumption that not all learning processes can be carried out directly on the actual object (Sari et al., 2024).

Tabletop Disaster Exercise (TDE) is an indoor simulation that can be used to test the preparedness of various elements related to disaster management, through analysis of the reactions of training participants to resolve certain disaster scenarios. TDE is carried out in a plenary room or class (Ferianto & Hidayati, 2019).

Tabletop Disaster Exercise (TDE) is a simple and systematic concept where students can practice according to their respective roles by providing an imagination of a real disaster situation (Gerlach et al., 2023). This is supported by the statement of Steward & Wan (2007) in their research on the role of simulation in disaster management can measure a person's readiness to face a disaster. According to Mayo (2024) in their research, they also stated that disaster preparedness education using simulations in the form of games or play can provide better results than those that do not use simulations.

Based on the description above, the researcher is interested in conducting a study entitled "Triage Training on Tabletop Disaster Exercise (TDE) To Increase The Ability To Identify Victims Of Flood Disasters In Adolescents".

METHOD AND ANALYSIS

The research design used in this research is *pre-experimental* with a data collection method. data in *one group pre-posttest design* and a population of 30 selected using a *simple random sampling technique* that obtained 28 respondents those that fit the inclusion criteria are: active member of 6 youth groups, physically and mentally healthy and willing to be a respondent. The independent variable is *Triage training* and the dependent variable is the ability to identify disaster victims as measured using the Chi Square test.

The study was conducted in March 2023. This research has approved by the Commission Ethics Health Research Institute Nahdlatul Ulama Tuban Health Sciences Number: 32/LEPK.IIKNU/III/2023. The instrument used a questionnaire on the ability to identify disaster victims. The initial stage began with the researcher submitting a letter of request for permission to the campus by filling out the letter-making form in E-learning. After the letter was obtained from the campus, the researcher gave the letter to the Head of Labuhan Village. Then, the researcher collected data and populations that were in accordance with the research inclusion criteria, after the population data was collected, the researcher calculated the sampling using the " simple random sampling " method to calculate how many samples could be used as subjects who participated in the study. The selected samples will be given an explanation of the intent and purpose and ethics of the study including the confidentiality and privacy of respondents, then the researcher asks the respondents for their willingness and asks them to sign an informed consent form for respondents who are willing to be research subjects. Before the training, a pre-test will be carried out first which will be assisted by the team, then an intervention will be given in the form of Triage training which will be given by the demonstration method speaker with a 60-minute lecture. Then the Post-test will be continued by filling out the questionnaire and using a checklist to assess the ability to identify flood victims in each respondent. The researcher rechecks the data in the questionnaire, if there is anything that has not been filled in, the researcher asks the respondent to fill it in again. The data collected will be used as research data.

After all the research data has been collected, data processing is carried out using the stages of editing, coding, scoring, tabulating and data interpretation. The data collected in this study were analyzed using the Chi square statistical test, the data scale used for the independent and dependent variables is the Nominal scale. The tool used to analyze the data uses the SPSS for Windows software program.

RESULT

Table 1 Characteristics Based on Age, Gender, Education and Organizational Delegation Respondent

Characteristic	f	Percentage
Age		
10-14 Years	1	3.6%
15-16 Years	4	14.3%
17-21 Years	23	82.1%
Gender		
Man	18	64.3%
Women	10	35.7%
Education		
Junior High School	1	3.6%
Senior High School	20	71.4%
Bachelor	7	25.0%
Organization Delegation		
Youth organization	5	17.9%
IPNU/IPPNU	5	17.9%
IKSPI	2	7.1%
GASPI	4	14.3%
PRSH	7	25.0%
Vespa Community	5	17.9%
Total	**28**	**100%**

Based on table 1 in the respondent age section, it can be seen that of the 28 respondents, the majority were aged 17-21 years (82.1%) with a frequency of 23 respondents, the majority showed that their last education was high school 20 (25%), the majority (64.3%) of respondents were male, the majority of organizations that came as respondents were PRSH (25.0%) with a frequency of 7 respondents.

Table 2 Ability to Identify Flood Disaster Victims before done training *Tabletop Disaster Exercise* (TDE) Based *Triage*

No.	Before TDE	f	Percentage
1.	Unable	28	100%
2.	Capable	0	0%
	Total	28	100%

Based on table 2 it can be seen that The ability to identify flood disaster victims among adolescents in Labuhan Village before the Tabletop Disaster Exercise (TDE) based triage training was carried out in the underprivileged category (100%) with a frequency of 28 respondents.

Table 3 Flood Disaster Victim Identification Ability after done training *Tabletop Disaster Exercise* (TDE) Based *Triage*

No.	After TDE	f	Percentage
1.	Unable	4	14.3%
2.	Capable	24	85.7%
	Total	28	100%

Based on table 6 after the treatment was carried out, the ability to identify flood disaster victims among adolescents in Labuhan Village after the *tabletop disaster exercise*- based *triage training was* in the capable category (85.7%) with a frequency of 24 participants.

Table 4 *Tabletop disaster exercise (TDE)* -based *triage* training on the ability to identify flood disaster victims among adolescents in Labuhan Village

No.	Identification of Flood Disaster Victims	Capable		Unable		Total	
		f	%	f	%	f	%
1.	Pre-test	0	0	28	100	28	100
2.	Post-test	24	85.7	4	14.3	28	100
	Chi Square Asymp. Sig. = 0.000						

Based on Table 3, it can be seen that most of the ability to identify disaster victims before the youth training was unable with a percentage of (100%) frequency of 28 respondents. While after the training, the percentage of unable had decreased to (14.3%) frequency of 4 respondents.

Based on the results of the analysis using the SPSS *software application*

version 26.0 *for Windows,* the results of *the Asymp Sig value were obtained (2-tailed*) = 0.000, which means that the smaller the p-value , the more significant the results of the study, so that p = (0.000 <0.05), then H1 is accepted. This shows that there is an influence of training*Triage* based on *Tabletop Disaster Exercise* on the ability to identify flood disaster victims among adolescents in Labuhan Village, Brondong District, Lamongan Regency.

DISCUSSION

Triage **Training Based on** **Tabletop** **Disaster** **Exercise** **(TDE)** **for** **Identification of Flood Disaster Victims** **in Adolescents in Labuhan Village,** **Brondong District, Lamongan Regency**

Based on table 2, it shows the ability to identify flood disaster victims in teenagers before the *tabletop disaster exercise*- based *Triage Training was carried out,* showing that the percentage (100%) with a frequency of 28 members unable.

A person who can provide immediate assistance (handling) to a victim is called *a bystander* (Fatmawati et al., 2023). *Bystander* in Indonesian means a layperson. The Great Dictionary of the Indonesian Language defines a layperson as someone who is not an expert in a particular field. *A bystander* can also be interpreted as a first responder if an emergency occurs before an ambulance arrives (Usman et al., 2023). So it can be concluded that *a bystander* is someone who is not an expert in a field (medical) and becomes the first aider when an emergency occurs until *an ambulance* arrives at the scene.

Zhang et al., (2023) stated that age is related to a person's experience, ability to utilize sources of support and skills in coping mechanisms. Age factors affect the increase because the older the child, they are able to digest positive and negative

attitudes that socialize. Gender also affects the ability to identify flood disaster victims.

Almost all respondents were male, 18 (64.3%), while a small number of respondents were female, 10 (35.7%).

From the description above, the researcher can opine that to find out how far the respondents' abilities are before *the Triage* based on *tabletop disaster exercise is carried out*, a pre-test is needed. *The pre-test* results showed that 28 respondents were unable out of 28 respondents. This means that all respondents were unable before the training was carried out.

Identification **of** **Adolescent** **Capabilities After** **Triage** **Training** **Based on** **Tabletop Disaster Exercise** **(TDE)** **for Identification of Flood** **Disaster Victims in Adolescents in** **Labuhan Village, Brondong District,** **Lamongan Regency**

Based on table 3, the ability to identify flood disaster victims in teenagers after carrying out *Triage Training* based on *tabletop disaster exercises* shows that the percentage (85.7%) with a frequency of 24 teenagers able and percentage (14.3%) with a frequency of 4 teenagers who are unable. The presentation of the data shows that there is a change positive on some respondents namely his ability increase.

This change in ability level was caused by *Tabletop Disaster Exercise*- based *Triage training* for adolescents. can provide information, in which there is a process Study. Process Study is process For add knowledge, understanding And ability Which can obtained from experience or conduct studies (teaching and learning process). With this learning process, individuals expected capable dig What the hidden one in himself with method push for think, develop, And increase personality with to free myself from ignorance (Clar et al., 2023).

Training is a process to acquire knowledge, attitudes, and skills as a result of a person's experience resulting in behavioral changes (Fara-on, 2024). According to Hauth et al., (2024), training is a process of teaching certain knowledge and skills and attitudes so that a person becomes more skilled and able to carry out responsibilities better in accordance with standards. The factors that influence the effectiveness of training according Zhu et al., (2023) are training materials or content, training methods, trainers (instructors/trainers), training participants, facilities and training evaluation. Disaster education can be carried out using simulation methods that can make it easier for someone to improve their abilities.

According to *the Pan American Health Organization* (PAHO) *Tabletop Disaster Exercise* (TDE) can also be called a disaster simulation on a board or table where there is a scenario about a realistic disaster to be solved together during the exercise. Each individual involved has their own role and task in making decisions based on the knowledge and skills they have (Ozkan & Ikizceli, 2023).

Based on results This research can be concluded that after training there is change ability Respondent in accordance description table 3, data the show there is change Which Enough Good.

Tabletop Disaster Exercise (TDE) based *Triage* training on the ability to identify flood disaster victims among adolescents in Labuhan Village

Analysis in study This use Test *Chi Square* with level significance $\alpha = 0.05$ and processing was carried out using SPSS *software* version 26.0 *for windows* obtained results mark *Asymp Sig. = 0,000* . So $p = 0.000 < 0.05$ then H $_1$ = accepted means there is an influence of training *Tabletop Disaster Exercise-* based *Triage* on the Ability to Identify Flood Victims in Adolescents in Labuhan Village, Brondong District, Lamongan Regency.

Based on table 2, it shows that the majority of the ability to identify flood disaster victims before the training of adolescents was unable with a percentage of (100%) with a frequency of 28. Meanwhile, after the training, the percentage of unable had decreased to (14.3%) with a frequency of 4. This proves that the *Tabletop Disaster Exercise-* Based *Triage training* has a good influence on the ability to identify flood disaster victims of adolescents in Labuhan Village.

Based on table 1, it can be seen that the majority of 17-21 year olds are in the transition process from adolescence to adulthood, during this period individuals begin to explore their identity, especially in love, perspective, and work. In general data based on age, the percentage obtained is (82.1%) with a frequency of 23 respondents.

So researchers are able to argue that the factors that influence a person's behavior in determining good, bad and can determine an ability, so that the concept plays a role in determining a person's attitude and behavior in something. Knowledge refers to concepts, principles, procedures, policies or other information needed. Sufficient experience, frequent exposure to an event and adequate level of knowledge can make a person act better.

So it can be concluded that *Bystander* is someone who is not an expert in a field (medical) and becomes the first aider when an emergency occurs until *the ambulance* arrives at the scene. *The 32nd* *International* *Conference Of The Red Cross And Red Crecent* got the results, one of the points of which is the driver of each country to consider all necessary steps to encourage the provision of first aid by *first responders* or lay people with proper training and if necessary get some protection (Vaughn & Masterson, 2024)

CONCLUSION

The conclusion of this study is that there is an influence of providing Tabletop Disaster Exercise (TDE)-based Triage training on the ability to identify flood disaster victims among adolescents in Labuhan Village, Brondong District, Lamongan Regency.

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