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Original Research Article

FAMILY KNOWLEDGE AND PREPAREDNESS IN FACING FLOOD DISASTERS IN BENGKULU CITY

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Abstract

Background: Floods are natural events that can occur at any time and often result in loss of life and property. Losses due to flooding can be in the form of damage to buildings, loss of valuables, so that the losses that result cannot be prevented, but can be controlled and reduced the impact of losses caused.

Objectives: This study aims to determine the relationship between family knowledge and preparedness in facing flood disasters in Bengkulu City.

Methods: This study used a cross-sectional research design. The population were head of family, samples obtained by accidental sampling technique as many as 90 respondents. Data analysis used univariate and bivariate analysis, questionnaire were knowledge and preparedness questionnaires.

Results: The results of this study showed that from 90 samples of family knowledge about flooding, 30 respondents (33.3%) were well informed and 44 respondents (48.9%) were well-knowledge, while 20 respondents (22.2%) had good preparedness, and 70 respondents (77.8%) had sufficient preparedness. The results of the Chi-square analysis obtained there was no significant relationship between family knowledge and preparedness.

Conclusion: The result of this research can be used as information material for the family that are about that the knowledge is not one of the factors can be affecting the preparedness of respondents in facing flood disaster.

Keywords: Flood, Knowledge, Preparedness

INTRODUCTION

Disaster is the event or series of events that basically tend to threatening life, disturbing public peace. Disaster due to various factors like natural disaster and non – natural disaster that caused by human and causing fatalities,

environmental damage, loss of property and exposed to psychology (The Law of Indonesia No 24 at 2007).

The knowledge is main factor and the key for preparedness. The knowledge that it has able be affecting the attitude and caring to do

preparedness in anticipate of disaster (Khambali, 2017)

Disaster probably can be occurred in Indonesia that are landslide, volcano, drought, forest fire and flood. This condition cannot be separated from the territory of Indonesia country which are geology on meeting of two big plates that are Eurasian plate and indo- Australian plate. Astronomically, Indonesia passed by the equator so that tropical climate. This thing able to make drought on dry season and flood on rainy season, so that, in 2019 occurred disaster by the highest number that are tornado and flood. (BNPB, 2019). Flood disaster is frequently occurred in Indonesia due to tomado, tropical storm (Kodoatie, 2021). Flood disaster due to natural condition that static like, geography, topography and geometry of river channel.

Bengkulu is one of province in Sumatera Island that frequently exposed disaster like flood disaster especially in Tanjung Agung district, every year on rainy season (Ida Rahmawati, 2022).

16 Enhancement of the Disaster Management Capacity of National Agency for Disaster Management (BNPB) explained that the impact of flood disaster in Indonesia able to reduce by community if their preparedness and their knowledge about flood disaster improved (BNPB, 2019).

6 **Objective:** This study aims to determine the relationship between family knowledge and preparedness in facing flood disasters in Bengkulu City, to know distribution and frequency of family knowledge, to know distribution and frequency of preparedness.

METHODS

Study Design

Method of research that used by researcher was analytic survey by cross-sectional design here independent variable that were family knowledge and the dependent variable was Preparedness in Facing Flood Disasters. These variables were measured simultaneously.

13

Setting

This research was conducted in Tanjung Agung district, Bengkulu City from July to October 2023.

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Research Subject

The population of this study were as many as 324 persons and used Slovin's formula for samples of this study taken by accidental sampling technique. The number of samples in this study were as many as 90 respondents.

Instruments

Instruments used in this study were knowledge questionnaire and preparedness questionnaire. Item questions of the knowledge questionnaire were 10 questions and the preparedness questionnaire as many as 10 questions.

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Data Analysis

Data was analyzed using SPSS version 21 software. Univariate analysis was performed to describe each variable (knowledge and preparedness). Bivariate analysis was carried out to see the relationship between knowledge and the Preparedness in Facing Flood Disasters in Bengkulu City using the Chi Square statistical test.

Ethical Consideration

This study was getting the recommendation from Kesbangpol Bengkulu City No 098/869/B.Kesbangpol/2023, Permission from Institution of Research and Community Services No.061-P/LPPM-STIKESTMS/2023.

RESULTS

The characteristic of the respondents was described based on the gender, their level of knowledge and their level of preparedness.

Table 1. Distribution Based on Gender

Gender	Frequency	%
Male	72 respondents	80 %
Female	18 respondents	20 %
Total	90 respondents	100 %

Based on Table 1, there were 72 respondents or 80% were male and 18 respondents (20%) were female.

Table 2. Distribution Based on Knowledge

No	Knowledge	Frequency	(%)
1.	Low	16	17.8
2.	Moderate	44	48.9
3.	Good	30	33.3
	Total	90	100.0

Based on Table 2, from 90 respondents there were 16 respondents (17.8%) with low knowledge category, there were 44 respondents (48.9%) with moderate category, and 30 respondents (33.3%) with good category.

Table 3. Distribution Based on Preparedness

No	Preparedness	Frequency	(%)
1.	Moderate	70	77.8%
2.	Ready	20	22.2%
	Total	90	90%

Based on table 3 obtained that from 90 respondents there were 70 respondents (77.8%) with moderate and 20 respondents (22.2%) with ready category.

Table 4. Cross Tabulation Between Family Knowledge and Preparedness

Education	Preparedness				Total		χ^2	P
	Moderate		Ready					
	F	%	F	%	F	%		
Low	14	87,5	2	12,5	16	100	1,09	0,57
Moderate	33	75,0	11	25,0	44	100		
Good	23	76,7	7	23,3	30	100		

Based on Table 4, from 16 respondents was low knowledge there were 14 respondents (87.5%) with moderate category and 2 respondents (12.5%) with ready category. From 44 respondents were moderate knowledge category there were 33 respondents (75%) with moderate preparedness category and 11 respondents (25%) with ready preparedness category. From 30 respondents was good knowledge there were 23 respondents (76.7%) with moderate preparedness category and 7 respondents (23.3%) with ready preparedness

category. The result from Chi-Square Test obtained that the value of person Chi-Square was $\chi^2 = 1,093$ by P-Value $0.579 > \alpha 0.05$, there is no significant the relationship between family knowledge and preparedness in facing flood disasters in Bengkulu City.

DISCUSSION

Knowledge is the basic of family in facing of flood disaster. Especially in anticipate and on flood disaster is going. The knowledge of householder is important towards flood disaster, because as a patriarch in related the information of flood disaster (Purwani, 2019). In other research conducted by Indrawati (2015) explained that the knowledge able to influence concern and attitude to always ready and anticipate when disaster occurred, especially on vulnerable area of flood disaster.

The majority of family preparedness were moderate category. Preparedness can affect by various factors like knowledge, so that, better the level of knowledge of family, so more ready the family to anticipate of flood disaster.

From 90 samples obtained 16 respondents was low knowledge there were 14 respondents with moderate category and 2 respondents with ready category. This thing showed that the knowledge affected towards preparedness. Better the level of knowledge so more ready for anticipate of flood disaster, whereas 2 respondents that have ready preparedness category. Showed that the direct communication to respondents who said that in their environment frequently occur flood disaster. On that time, the respondents have experienced on facing the flood disaster.

According to Setiawicaksana (2021) with high respond of respondent, so they able to acted like preparing all of the thing to face of flood disaster. Various effort of the government which is structurally or structural approach, in turns out fully able to anticipate the problem of flood in Indonesia (Malahika, 2016).

According theory of Umar (2013), preparedness and knowledge of society in facing of flood disaster hoped proactively for conducted

step by step of the prevention, emergency response and rehabilitation which collaborate with government for maintain the environmental to minimize the impact caused.

CONCLUSION ⁹

The result of this research can be used as information material for the family that are about that the knowledge is not one of the factors can be affecting the preparedness of respondents in facing flood disaster.

SUGGESTIONS

Suggestion for the society is the result of this study able to motivate and improve their information about disaster preparedness and mitigation of flood disaster in their environment.

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¹⁴ DECLARATION OF CONFLICTING INTEREST

There is no conflict of interest arise when conducting this research.

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AUTHOR CONTRIBUTION

Loren Juksen: Contribution in planning and supervision in the completion of a manuscript.

Yulita Elvira: Contribution in reviewing the discussion of the final results of the manuscript.

Desi Fitriani: Contribution in reviewing the discussion of the final results of the manuscript.

Ida Rahmawati: Contribution in reviewing the discussion of the final results of the manuscript.

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