

Relationship of Preparedness with Anxiety for Flood in The Region of Panjangrejo Village

Ika Silvitasari^{1*}, Hermawati², Wahyuni³

¹Bachelor of Nursing/Faculty of Helth Sciences, Aisyiyah University Suraarta

²Diploma of Nursing/Faculty of Helth Sciences, Aisyiyah University Suraarta

³Bachelor of Nursing/Faculty of Helth Sciences, Aisyiyah University Suraarta

*E-mail: korespondensi@domain.com

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ABSTRACT

Background: Floods are a type of disaster that people need to be aware of because they can have physical and psychological impacts. One of the impacts of the community on the occurrence of floods is the anxiety of the residents about their unpreparedness for flooding. Objective: to determine the relationship between preparedness and anxiety level in facing floods in Panjangrejo Village. Methods: the research method is a quantitative cross sectional approach with the sampling technique using accidental sampling and get a total sample of 36 respondents. The instrument used to measure preparedness used the adaptation of the 2018 BNPB questionnaire while the level of anxiety used the State Anxiety Inventory (S-AI) Form Y. Results: statistical analysis test used chi square with a significance level of 95%, obtained p value = 0.002 or ($p < 0.05$), so it is found that there is a relationship between preparedness and level of anxiety in facing floods in Panjangrejo Village. Conclusion: Communities with high preparedness will reduce the level of anxiety, while people with less preparedness will increase the level of anxiety. Suggestion: carry out further research on flood preparedness with a quasi experimental method.

INTRODUCTION

Flood is an event of water inundating an area / area that is usually not flooded for a certain period of time (Findayani A,

2015). Floods can be caused by high rainfall, which causes river, lake, sea or drainage to overflow because the amount of water exceeds the capacity. Floods can

also be caused by reduced water infiltration, deforestation, littering and establishing hunia on river banks (Yanuarto *et.al*, 2019).

One of the various disasters that the community must be aware of is flooding. Floods are unique, because the water comes suddenly and shrinks quickly, this incident has a big impact on the people who are downstream. Increased understanding and capacity of the community related to flood preparedness is needed to deal with the threat of flooding (Azmeri *et al*, 2017).

Unfavorable environmental conditions can become health and psychological problems (Zulch, H. R. (n.d.), 2014). People who live in areas prone to flooding will have continuous problems, including health problems, environmental problems, health problems and psychological problems (Findayani A, 2015).

The impact caused by flooding is a psychological trauma for the people who experience it and will have an impact on mental health. Various psychological symptoms that arise such as anxiety, acute stress, depression and post traumatic stress disorder can increase after the flood disaster (Bisson, I Jonatan and Lewis , Catrin, 2014).

Flood disaster is one of the factors for anxiety, because this disaster cannot be predicted when the disaster will occur. Flood

disaster will increase someone's coping to immediately take steps and decisions so that the impact that occurs is lighter (Lamba, *et al*. 2017; Findayani A, 2015).

Efforts to systematically and comprehensively to cope with disaster events quickly, precisely and accurately to minimize casualties and losses are called disaster management (Usiono, *et.al*, 2018). Disaster management consists of preparedness, mitigation, disaster, rehabilitation and reconstruction (Badan Nasional Penanggulangan Bencana, 2018).

All activities carried out to anticipate disasters through organizing and using appropriate steps constitute disaster management in the preparedness phase (Usiono, *et.al*, 2018). Research journal by Aprianto, N., and Fransiske, S (2018) in which it explains that preparedness is a form of responsibility in carrying out disaster management. Flood preparedness activities carried out at the pre-flood disaster stage are an initial provision for dealing with flood disasters. One of the activities that can be carried out in the flood preparedness phase is by educating disaster preparedness in flood-prone community areas.

The results of the preliminary study found that Pundong sub-district is a disaster-prone area because most of the area is flanked by two large rivers, namely the Oya River

and the Opak River. In 2017, Pundong sub-district experienced flooding and the area of Panjangrejo village was one of the areas with a fairly large flood impact. The anxiety felt in the community is felt when the rainy season arrives, people always feel anxious when the rainy season arrives. The experience of floods that have been experienced by residents is their own experience to prepare everything when the rainy season arrives.

METHODS AND MATERIALS

The research design was analytic observational with cross sectional approach. This research was conducted in Panjangrejo village in July - August 2020. The number of samples used was 36 people. The sample criteria of this research is the residents of the kelurahan of Panjangrejo village who have experienced floods and are prone to flooding, who are willing to be respondent, they can read and write, and do not have mental disorder. Sampling using accidental sampling.

The research instrument used was the State Anxiety Inventory (S-AI) Form Y to measure the level of residents' anxiety and the flood preparedness questionnaire was taken from the BNPB in 2018. Statistical analysis used the Chi Square test with 95% (α 0.05) degrees of significance.

RESULTS AND DISCUSSION

1. Univariate analysis

- a. Characteristics of respondents based on age, gender, education

Table 1. Frequency distribution: age, sex, education

Characteristics	Frequency	Percentage
Age		
17-25	6	16.7
26-35	13	36.1
36-45	13	36.1
45-55	4	11.1
Sex		
Man	28	77.8
Women	8	22.2
Education		
Primary School	5	13.9
junior high school	8	22.2
senior high school	20	55.6
University	3	8.3

Table 1 shows that the majority of respondents aged 26-35 years and 36-45 years, namely 13 respondents (36.1%), a small proportion of respondents aged 45-55 years, namely 4 respondents (11.1%).

Research conducted by Hastuti, Haryanto, Romadhani (2020) states that age, gender and education will result in different knowledge and

attitudes related to disaster preparedness.

Based on the most recent education of respondents, the majority of high school graduates are 55.6%, if the level of understanding is high, it can affect the way people think better, then information and innovation will be absorbed quickly so that they are better prepared for disasters. This is consistent with Hoffmann R & Muttarak R (2017) stated, that highly educated people are more capable of reducing risks, increasing their abilities and reducing the impact on health so that they will participate either as individuals or communities in preparing themselves to react to disaster. Apart from providing information, educational activities include learning skills and self-empowerment in such a way that they are able to take possible actions to reduce the risk of disaster hazards.

Someone with a much older age will have more experience dealing with anxiety problems than a young age. However, this statement is different from that presented by Supriyandi (2020) which states that getting older does not indicate a willingness to prepare for a disaster.

b. Characteristics of respondents based on level of preparedness

Table 2. Frequency distribution based on the disaster preparedness level of residents in flood-prone areas

Characteristics Preparedness	Frequency	Percentage
Not ready	4	9.3
Less Ready	4	9.3
Almost ready	15	34.9
Ready	8	18.6
Very ready	5	11.6

Table 2. shows that the majority of residents in flood-prone areas are almost ready, namely 15 respondents (34.9%). Most people in the ready category until they are very ready. Meanwhile, there are still some people who are in the almost ready to not ready category. This is because people still believe that disasters are God's destiny so there is no need to make preparations for flood disaster prevention. The results of this study are in line with research by Sabir A (2016) which states that people are in the almost ready category due to the perception of natural disasters as God's destiny.

The results of research by Aji.A (2015) state that the community's pre-flood preparedness is still low

due to the absence of disaster monitoring and preparedness places, the absence of disaster training, disaster dissemination and counseling. In the location of the flood disaster, educational media such as posters, disaster-prone maps and pamphlets were not found containing an invitation to minimize the impact of flooding.

This is in line with Hastuti (2020) which states that disaster preparedness training will increase one's preparedness when facing disasters. According to Jacklin's (2015) research, the level of disaster preparedness for people who have attended training or counseling related to disasters is higher than for people who have not attended disaster training or counseling.

- c. The frequency distribution is based on the level of community anxiety in facing floods

Table 3. Frequency distribution based on frequency based on the level of community anxiety facing floods

Characteristics Anxiety	Frequency	Percentage
Mild anxiety	6	14.0
Moderate Anxiety	26	60.5
Severe Anxiety	4	9.3

Table 3 shows that most respondents experienced moderate anxiety, namely 26 respondents (60.5%). This is because residents feel afraid and anxious when a flood will cause casualties, injuries, loss of property or damage to infrastructure. The results of this study are in line with the research of Schwartz *et al* (2015) on victims of Hurricane Sandy, which found that property damage causes symptoms of anxiety. Another source explains that the loss of something important and irreplaceable, such as property or possessions, can be an anxious stressor for flood victims. This has a much more significant impact in developing countries, because individuals do not have the financial resources to replace all that is lost (González. *et.al.*, 2021).

Anxiety is influenced by several factors according to Mamesah (2018) who argue that young people experience feelings of anxiety more easily than old age. In addition to age, gender is also influential, women experience an average of two to three times more anxiety than men. Women are at greater risk of suffering from anxiety disorders

because of their position in society and the nature of their relationships with other people. In general, women lack power in society and their status is typically tied to men (Wiramiharja, 2015). Another factor is education. According to Prihatiningsih, Wakhid and Aini (2019) study, it was found that residents with secondary education tend to be more able to overcome anxiety, this is because

their level of knowledge and understanding in problem solving is higher.

At research level mental health with the nepal earthquake then the highest result was depression, followed by with increasing anxiety (Kane et al., 2018). The results of this study show natural disasters such as floods can increase anxiety, furthermore it can cause traumatized.

2. Bivariate analysis

Table 4. Relationship between Preparedness and Anxiety Level in Facing Floods in Panjanglejo Village

Disaster Preparedness Level	Anxiety level								p-value
	Mild anxiety		Moderate Anxiety		Severe Anxiety		Total		
	F	%	F	%	F	%	F	%	
Not ready	1	25	0	0	3	75	4	11,11	0,002
less ready	1	25	3	75	0	0	4	11,11	
Almost ready	2	13,3	12	80	1	10	10	27,78	
Ready	0	0	8	100	0	0	8	22,22	
Very ready	2	40	3	60	0	0	10	27,78	
Total	6	22,2	26	72,2	4	11,1	36	100	

Based on table 4. It shows that the respondent group with a level of disaster preparedness in the category of not ready to experience severe anxiety is 3 respondents, this category is obtained more than in other categories of respondents. However, in this study the

majority of residents in the category of disaster preparedness level were almost ready to experience moderate anxiety.

Chi-square test results obtained p value 0.002 ($\alpha = 0.05$), which indicates that there is a relationship between Preparedness and Anxiety Levels in

Facing Floods in Panjangrejo Village. This is because people think the area where they live is still safe and become a source of livelihood and income to fulfill their daily needs.

The effect of activities in which respondents who have more frequent contact with hate activities are far more prepared. This fact is in accordance with a study that states that people who can accept that they live in vulnerability to disasters and come into contact with disaster activities more often will be better able to increase preparedness, better understand and tend to comply with plans when the disaster occurs (Hastuti, 2020). In the face of disasters, people are only faced with the choice that whether they want it or not they have to make friends with disasters, especially because they live and make a living in a disaster-prone environment so that what is gained and learned with good absorption will form good preparedness attitudes and behaviors (Sabir, 2016).

The results of this study are in line with Nurmalah (2017) study of the relationship between flood preparedness and anxiety levels. The results show that there is a relationship between the level of preparedness to face floods and the level of community anxiety. Disas-

ter preparedness provides awareness and confidence in the community and minimizes disaster victims and psychological impacts. Disaster preparedness is a component in reducing disaster risk. The community is very important to know disaster preparedness because they are the biggest component in stakeholders who play an important role in preparedness (Badan Nasional Penanggulangan Bencana, 2018).

CONCLUSIONS AND SUGGESTIONS RECOMMENDATIONS

The results showed a relationship between preparedness and anxiety level in facing floods in Panjangrejo village. Preparedness that has been planned and realized, the disaster area will reduce the level of anxiety for residents affected by the flood. For future researchers, it is hoped that they can carry out further research on flood preparedness using quasi experimental methods.

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