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Disaster management efforts on disability family

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Abstract

Background and objective: Preparedness is an action to respond to a disaster situation quickly and efficiently. The family as the smallest unit in society has a role in disaster preparedness, especially for families with disabilities, this is due to the absence of disaster management for families with disabilities. According to a year 2013 UN global survey, 20% of people worldwide with disabilities can save themselves and 31% of people say they need someone who can help during a disaster. Based on the 2006 earthquake damage map, Imogiri Regency, Bantul, is the red zone that suffered the worst damage and from the results of a preliminary study, families who are ready for disaster have not been formed in real terms. The number of families with disabilities in 2019 was 15 families. Disaster preparedness activities for families

with disabilities have not been carried out, there are no activities that involve multi-structures in the formation of disaster prepared families. This study aims to increase the independence and capacity of the community and families in disaster preparedness.

Methodology: The research method used is a quasi-experimental pre-post-test. Research instrument with preparedness instrument.

Results: Family knowledge after receiving counseling and training on the preparedness of families with disabilities in dealing with disasters increased to 25% (from 25.0% pre-test results and post test results to 50.0%). Meanwhile, the attitude of family preparedness increased to 37.5% from 25.0% pre-test results and post-test results to 62.5%).

Keywords: disaster, disability family, knowledge, attitude

Introduction

Disaster events always have an impact on loss of life and material, this happens because of a lack of vigilance and preparedness in the face of danger threats ^[1]. Preparedness is actions that enable governments, organizations, communities, communities and individuals to be able to respond to a disaster situation quickly and effectively. Disaster preparedness is a basic need for every region to reduce the risk of disasters that can occur regardless of time and place. Especially in Yogyakarta. According to recorded data on the distribution of earthquake epicenters with a magnitude of 5 from 1900-2000 and according to a map of earthquake areas in Indonesia, the Special Region of Yogyakarta (DIY) is in an area prone to earthquakes. Apart from being located near the confluence of two world plates, this position makes DIY vulnerable to natural disasters such as tectonic earthquakes and volcanic earthquakes ^[2]. Vigilance is very important considering that the number of casualties and material losses is not small in every disaster incident, such as what happened in Yogyakarta, precisely in Bantul Regency on 27 May 2006.

Bantul Regency is one of the areas that has a fairly high earthquake hazard. The high threat of earthquakes in Bantul district has been proven by the earthquake on 27 May 2006. The disaster has resulted in more than 5,760 people dying, more than 40,000 people being injured and more than 1,000,000 people losing their homes ^[3]. Earthquake Earth 2006 in addition to causing casualties, it also caused damage and losses in the housing, social and infrastructure sectors. Productive and cross-sectoral sectors. The total loss and damage caused by the disaster in the provinces of the Special Region of Yogyakarta and Central Java Province is estimated at Rp. 29.1 trillion.

Bantul Regency is not only prone to earthquakes, it is also prone to the threat of a tsunami. In 2006 the Pangandaran tsunami occurred. BMKG said the tsunami was triggered by an earthquake on the ocean floor with an amplitude of 7.1 on the Richter scale, centered on 293 km southwest of Cilacap or 10,010 latitude and 107,690 east longitude. The earthquake occurred on July 17, 2006 at 03.06 WIB and triggered a tsunami wave. The height of the tsunami waves observed in the southern coastal area of Bantul Regency reached 1-3 meters ^[4]. This natural phenomenon did not cost lives and property in Bantul Regency, but is sufficient to show that the southern coastal area of Bantul Regency has the same high threat of earthquake and tsunami as the other southern coasts of Java.

The problems faced today are for example related to health services, education, security, social conflicts, land ownership, clean water needs, thuggery, illiteracy, and others. Types of disasters that have occurred in Bantul Regency.

This disaster that has happened has the potential to happen again in Bantul Regency if there is no serious handling of the potential disaster ^[5].

Flood

In Bantul Regency, flooding occurs not only due to high rainfall, but also due to the accumulation of water flowing from the northern region of the city of Yogyakarta and Bantul, the northern region covering the Kasihan, Sewon and Banguntapan sub-districts.

In May 2011, heavy rainfall caused the overflow of the code river, which submerged several houses in Sorogenen, Timbulharjo, Bantul Regency. In January 2012, BPBD Bantul Regency moved due to the Winongo flood 770 people were forced to evacuate, 15 of whom had to be evacuated by the SAR team. Refugees were scattered at several points, including four RT Jogonalan Kidul, two RT Jogonalan lor and two RT Glondong, all of them are in pity, Bantul and are on the banks of the Winongo River. In addition, the flood also affected the hamlets of Pandeyan, Bangunharjo, Sewon. As a result of heavy flood losses in Bantul Regency reached 29 billion.

In 2013 more than 200 ha of agricultural land in Bantul Regency were submerged due to heavy rains. The flooded agricultural land includes Pundong, Bambanglipuro, Pandak, Kretek and Sanden sub-districts. Floods are not only caused by high rainfall, but also because of the large flow of water.

Tornado

In 2011, Putting Beliang hit the Piyungan sub-district and damaged 54 houses. The damage caused by the tornado occurred in Sitimulyo Hamlet, namely 35 houses were slightly damaged, the damage caused by the tornado was around Rp. 28 million. In 2013 dozens of trees fell due to extreme weather that hit Jetis District, Bantul Regency. This happened to dozens of houses that were hit by a fallen tree and resulted in 1 person being lightly injured. In addition to Jetis District, many fallen trees also hit Imogiri and Sewon Districts ^[6].

Tidal Wave (Rob) and Abrasion

In 2011 the Tidal Wave hit Kuwaru beach in Srandakan District, Bantul Regency. This tidal wave damaged plants, dozens of buildings and even asphalt roads on the shores of Kuwaru. This wave occurs due to natural factors that often hit the region. In 2013 Tidal waves and abrasion occurred on the Samas beach, Sanden District, this resulted in housing which was 200 meters from the edge of the sea had to be evacuated. This incident harmed dozens of household heads, about 12 houses were left to evacuate, 6 of which were damaged.

Earthquake

In 2006 a tectonic earthquake with a scale of 5.9 on the Richter Scale destroyed the Bantul district. Based on data from the DIY Satkorlak, the death toll from Bantul district was 3,082 people. 2,700 seriously injured and 3,100 lightly injured. Around 33,616 houses were badly damaged, while the losses released by the Yogyakarta Provincial Government reached Rp. 2.8 Trillion.

Drought

In 2011 Drought hit 95 ha of paddy fields in Sedayu and Piyungan sub-districts, Bantul district, this resulted in crop

failure. This happens because of the long dry season so that the water debit in irrigation is getting smaller. In 2012 the impact of the long drought caused drought to occur in several sub-districts, including Dlingo, Piyungan, Imogiri, Pleret, Kretek and Pajangan Districts, but not all districts were affected, only a few points ^[7].

Landslide

In 2012 due to heavy rains landslides occurred in Mojosari Village, Piyungan District, Bantul Regency. This resulted in 1 damaged house the other at risk of landslides. In 2013 a landslide occurred in Sriharjo Village, Imogiri District, Bantul Regency, resulting in two houses being razed to the ground. This happened because of the heavy rain for a long time, apart from the two houses, this landslide caused 11 families to evacuate because their houses were uninhabitable.

Methodology

Regarding the Covid-19 pandemic, the number of families involved is 15 families. However, because there were many interests that could not be left behind, only 8 families were present. To solve the problems that have been identified and formulated above so that activities can run smoothly, then as an alternative problem solving is the classical approach. The classical approach is carried out when providing theories about disaster management efforts for families in general and disaster management efforts, especially for family members with disabilities along with video playback of disaster management. The methods used are:

1. Lectures vary

This method was chosen to convey what kinds of disasters often occur in Indonesia, what needs to be prepared from pre, intra and post disasters as well as what efforts must be made by families in dealing with disasters, especially for family members who have Disability family ^[8].

2. Demonstration

The demonstration was carried out by the instructor from the TAGANA Team in front of 8 participants. The TAGANA team demonstrated how disaster management techniques are used for family members with disabilities, how and what needs to be prepared in the event of a disaster and what should be done to help and save family members in the event of a disaster, especially for family members with disabilities ^[9]. The steps for the activities carried out are as follows:

1. Implementation of Pre Test
2. Explanation of the background of community service activities carried out by the Lecturer Team of STIKES Notokusumo
3. Providing information/education from the TAGANA Team related to the description of disasters that occurred in Indonesia in general and in Yogyakarta in particular apart from Disaster Management Efforts in general and Disaster Management Efforts for family members with Disabilities
4. Demonstration on how to implement disaster management techniques for family members with disabilities, how and what needs to be prepared in the event of a disaster and what to do to help and save family members in the event of a disaster, especially for family members who have experienced a disaster disability ^[10].
5. Implementation of Post Test

Results

1. Characteristics of Respondents

The research subjects consisted of 8 families. Characteristics of respondents in the study consisted of age, occupation and education, knowledge and preparedness. Based on the community service activities that have been carried out in August 2020, the characteristics of the respondents can be described as shown in the following table:

Table 1: Characteristics of Respondents by Age in Jomboran, Gilangharjo, Pandak, Bantul, Yogyakarta, August 2020 (n=8)

Characteristics (age)	Frecuency		Percentage	
	F		(%)	
31-40	1		12,5	
41-50	1		12,5	
51-60	3		37,5	
>60	3		37,5	
Total	8		100,0	

Table 2: Characteristics of Respondents by Occupation in Jomboran, Gilangharjo, Pandak, Bantul, Yogyakarta, August 2020 (n=8)

Characteristics	Frecuency		Percentage	
	F		(%)	
entrepreneur	1		12,5	
Private sector employee	2		25,0	
Seller	1		12,5	
Farmer	1		12,5	
Total	3		37,5	

Table 3: Characteristics of Respondents based on Education in Jomboran, Gilangharjo, Pandak, Bantul, Yogyakarta, August 2020 (n=8)

Characteristics	Frecuency		Percentage	
	F		(%)	
Elementary School (SD)	4		50,0	
Senior High School (SLTA)	3		37,5	
Bachelor (D3)	1		12,5	
Total	8		100,0	

The number of respondents in the Jomboran, Gilangharjo, Pandak, Bantul, most of them are 51-60 years old, namely 3 families (37.5%) and >60 years are 3 families (37.5%). At least 1 family member aged 31-40 years (12.5%) and 41-50 years old there is 1 family member (12.5%). Respondents of FAMILY who have a Labor job listed in the questionnaire are larger, namely 3 (37.5%) and the fewest occupations of respondents are Entrepreneur, Seller and farmer, each is 1 (12.5%). The highest number of respondents based on education was SD (Elementary School) which was 4 families (50.0%) and the least was Bachelor (D3) education of 1 family (12.5%).

2. Knowledge on Preparedness of Families with Disabilities in Facing Disaster

Table 4: Knowledge of Families with Disabilities Preparedness in Facing Disasters in Jomboran, Gilangharjo, Pandak, Bantul, Yogyakarta (n = 8)

Knowledge	Before		After	
	F	%	F	%
Good	2	25,0	4	50,0
Sufficient	1	12,5	1	12,5
Poor	5	62,5	3	37,5
Total	8	100,0	8	100,0

3. Attitudes About Preparedness of Families with Disabilities in Facing Disaster

Table 5: Attitudes regarding Preparedness of Families with Disabilities in Facing Disasters in Dusun Jomboran, Gilangharjo, Pandak, Bantul, Yogyakarta (n = 8)

Sikap	Sebelum		Sesudah	
	F	%	F	%
Good	2	25,0	5	62,5
Poor	6	75,0	3	37,5
Total	8	100,0	8	100,0

Tables 4 and 5 above show that the knowledge of the household family members before the counseling and training actions (pre-test) were carried out in 3 (three) categories, namely good, sufficient and poor. The highest category was the good category, namely 5 (62.5%) followed by the good category 2 (25.0%) and the sufficient category at 1 (12.5%). However, after conducting counseling and training on the preparedness of families with disabilities in dealing with disasters, knowledge has increased, namely the good category to 4 (50.0%), sufficient category 1 (12.5%) but there are still categories that are lacking even though the number has decreased from the results. the pre-test was from 5 person to 3 person only, while the lack of category was 3 person (37.5%). Meanwhile, related to the family's preparedness attitude before the counseling and training actions (pre-test) were carried out, there were 2 (two) categories, namely Good and Poor. The most category is less, which is 6 families (75.0%) and good category is 2 families (25.0%). After conducting counseling and training on the preparedness of families with disabilities in dealing with disasters, there are still 2 (two) categories of preparedness attitudes, namely good and poor. The good category increased from 2 families before the action. After the action was taken, it increased to 5 families (62.5%) and for the moderate category it decreased, from 6 families before the action was taken, it became 3 families only (37, 5%).

Discussion

1. Knowledge of disaster preparedness for family members with disabilities

Table 4 shows that the knowledge of the respondents before the counseling and training actions (pre-test) were carried out in 3 (three) categories, namely good, sufficient and poor. The highest category was the poor category, namely 5 (62.5%) followed by the good category 2 (25.0%) and the sufficient category at 1 (12.5%). However, after conducting counseling and training on the preparedness of families with disabilities in dealing with disasters, knowledge has increased, namely the good category to 4 (50.0%), sufficient category 1 (12.5%) but there are still categories that are lacking even though the number has decreased from the results. the pre-test was from 5 person to 3 person only, while the lack of category was 3 person (37.5%).

Based on the description above, what is meant by knowledge is the result of knowing and occurs after a person or group has sensed certain objects and knowledge is an important domain in shaping one's actions [11]. The knowledge obtained by respondents according to the form and type of knowledge according to Notoadmodjo (2012) is empirical knowledge, namely knowledge that emphasizes observation and sensory experience, obtained by observing and observing and through

human personal experiences that occur repeatedly^[12]. Based on the results of research conducted after the respondent's family received counseling and training, there was an increase in knowledge of 32.2% from the results before counseling and training was 58.1% and after counseling and training was 90.3%. This is in accordance with Notoadmodjo (2012) which states that the factors that affect a person's knowledge increase are education, media and information exposure^[13]. Disaster knowledge is the ability to remember events or series of events that threaten or disrupt people's lives and livelihoods caused, either by natural factors or non-natural factors as well as human factors that can result in casualties, humans, environmental damage, property losses and psychological impacts^[14]. Thus, it can be concluded that the knowledge of families with family members with disabilities regarding preparedness in dealing with disasters is in the good category so that it is expected to reduce risk when a disaster occurs.

2. Attitudes regarding disaster preparedness for family members with disabilities

Table 5 shows that the family's preparedness attitude before the counseling and training actions (pre-test) were carried out in 2 (two) categories, namely Good and Poor. The most category is less, which is 6 families (75.0%) and good category is 2 families (25.0%). After conducting counseling and training on the preparedness of families with disabilities in dealing with disasters, there are still 2 (two) categories of preparedness attitudes, namely good and poor. The good category increased from 2 families before the action. After the action was taken, it increased to 5 families (62.5%) and for the moderate category it decreased, from 6 families before the action was taken, it became 3 families only (37, 5%).

Based on the description above, what is meant by attitude is a pattern of anticipatory readiness behavior in adjusting to social situations and its nature is still closed from someone to a stimulus or object (Notoatmodjo, 2012). The purpose of this research is to improve and change the attitude of the respondent's family members to a positive attitude so that they are able to swiftly and ready to be able to face disasters and help family members with disabilities. The components that support the attitude structure are cognitive, affective and conative components.

Based on the results of research conducted after the respondent's family members received counseling and training, there was an increase in attitudes of 35.5% from the results before counseling and training was 61.3% and after counseling and training was 96.8%. This is in accordance with Notoatmodjo (2012) who stated that the factors that influence the formation and improvement of attitudes are personal experience, culture, other people who are considered important, mass media, educational and religious institutions or institutions as well as emotional factors. Factors that influence the formation and improvement of attitudes on the respondent's household head in this study are personal experience, culture, mass media and institutions. The attitude of disaster preparedness is an emergency response plan. An emergency response plan is a plan owned by individuals or communities in dealing with emergencies in an area due to natural disasters. An emergency response plan is very important, especially on the first day of a disaster or a period when outside assistance has not yet arrived^[15]. It can be concluded that the attitude of family preparedness in dealing with disasters is included in the good category, so it is expected to minimize the number of victims when a disaster

occurs and make the family more responsive to disasters.

Conclusion and Recommendations

Preparedness is the most important thing that must be owned by the family which can affect the knowledge and concern of the family to be ready and alert in anticipating disasters. Knowledge of preparedness is very useful in reducing disaster risk. Community preparedness behavior will make the community better prepared in dealing with disasters so as to minimize the negative impacts that arise when a disaster occurs. Community safety in the face of a disaster is not only determined by the effectiveness of the management that has been carried out by the government but also by the awareness and preparedness actions carried out by the community itself^[16]. The results obtained from the research that have been carried out show that there is an increase in knowledge and attitudes both before and after counseling and training actions regarding the preparedness of families with disabilities in facing disasters. Family knowledge after receiving counseling and training regarding the preparedness of families with disabilities in facing disasters increased to 25% (from 25.0% pre-test results and 50.0% post-test results). Meanwhile, the attitude of family preparedness increased to 37.5% from 25.0% pre-test results and post-test results to 62.5%).

Advice For Families. Families, especially those with family members with disabilities, need to be consistent in implementing handling and preparedness in dealing with disasters based on the information that has been obtained. Families need to work together with other family members to prepare all the necessities needed if one day a disaster occurs. The head of the family and other family members often meet, communicate and coordinate to remind each other about what things need to be done when a disaster occurs. The head of the family shares duties and roles with other family members regarding who will be responsible for protecting and helping family members with disabilities to survive the disaster. There is coordination and cooperation among family members related to the placement, arrangement and placement of objects or items in the house so as not to risk injuring family members during a disaster. Families can deal with emergencies by preparing in advance and working with other family members because the family is the main spearhead for people with disabilities. Preparedness is key to surviving an emergency and managing the chaos that follows. Many things must be prepared to prepare families for natural disasters. One way to prepare for this is to prepare disaster preparedness equipment and other necessities^[17].

Suggestions for related agencies. Tagana, BPBD and District Social Services need assistance for disaster preparedness in the community, especially in each family after being given counseling and training. Assistance that can be done, for example by making plans and designs to be able to improve the readiness or preparedness of the community or each family with regular implementation and evaluation.

Conflict of Interest

The authors declare that there is no conflict of interests regarding the publication of this paper.

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