THE RELATIONSHIP BETWEEN DEPRESSION LEVELS AND QUALITY OF LIFE POST-FLOOD DISASTERS IN COMMUNITIES IN NANGGUNG DISTRICT BOGOR REGENCY

Yufi Aliyupiudin[1*], Tisna Yanti[2], Satrio Kusumo Lelono[3], Akhmad Yani Suryana[4], Reny Siswanti[5,] Fajar Adhie Sulistyo[6]

[1,2,3,6] Nursing Study Program, Wijaya Husada Health Institute, Bogor
[4] Public Health Study Program, Wijaya Husada Health Institute, Bogor
[5] Midwifery Academy, Wijaya Husada

Abstract

In 2013 – 2016 Indonesia experienced 7,835 floods. The incident caused 2,294 people died, 623 people were missing, 9,187 people were injured, 1,799,211 people were displaced, 8,460,772 people were disabled, 52,396 houses were heavily damaged, 133,662 houses were slightly damaged. Indonesia, especially Java Island, experienced 509 floods which resulted in 201 deaths, 84 people missing, 322 injured, 92,678 people displaced, 971,602 people disabled, 4,515 houses heavily damaged, and 15,420 houses lightly damaged. West Java also experienced 56 floods in the same year. The flood caused 15 deaths, 2 injuries, 9,557 people displaced, 730,967 disabled people, 48 houses seriously damaged, and 154 houses lightly damaged. The sampling method in this research is accidental sampling technique with 60 respondents. The tools used in data collection were the WHO-Qol BREEF questionnaire to assess the quality and the Beck Depression Inventory (BDI) questionnaire to assess depression. The data analysis used was univariate and bivariate (Chi-square) analysis with SPSS program. The results of 60 respondents for the level of depression after the flood disaster in Nanggung Regency in 2021, 42 respondents (70%) experienced severe depression, 46 respondents (73.7%) had poor quality of life, There is a relationship between the level of depression and the quality of life of the community after the disaster flash floods in Nanggung Regency in 2021 with a p value of 0.034 (p value < 0.05).

Keywords: *Depression, Quality Of Life, Post-Flood Disasters*

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*)Corresponding author:
Email:wijayahusada@gmail.com

1. Introduction

The incidence and victims of floods are in the first place of the many disasters in the world, reaching 55%. In Indonesia, floods account for 38% of all disasters. The consequences of land use, climate change, and rising sea levels can increase the likelihood of catastrophic flooding during the rainy season. Flood events basically occur as a result of human activities, natural events, and other condition factors. (Badan Nasional Penanggulangan Bencana, 2015).

In 2013 – 2016 Indonesia experienced 7,835 flood events. The

incident caused 2294 people to die, 623 people missing, 9,187 people injured, 1,799,211 people displaced, 8,460,772 people affected, 52,396 houses heavily damaged, and 133,662 houses slightly damaged. Indonesia, especially the island of Java, experienced 509 flood events that caused 201 people died, 84 people were missing, 322 people were injured, 92,678 people were displaced, 971,602 people were affected, 4,515 houses were heavily damaged, and 15,420 houses were slightly damaged. And West Java also experienced 56 flood events in the same year. The flood caused 15 people died, 2 people were injured, 9,557 people were evacuated, 730,967 people were affected, 48 houses were seriously damaged, and 154 houses were slightly damaged (BNPB, 2019).

The impact of floods at all ages can cause mental problems, and have a long psychosocial impact. Impacts that arise include post-traumatic stress disorder (PTSD), stress disorder/stress disorder, being diagnosed with depression and anxiety disorders, and drug abuse, as well as suicidal ideation (BNPB, 2019).

The aftermath of a disaster can affect the family as a whole. Family members may exhibit symptoms that suggest secondary trauma, this occurs especially in children. The results of the research are that if parents experience post-traumatic stress disorder (PTSD) after a flood, it will affect their child's mental condition. Girls are more prone to PTSD than boys, but there is no difference in cases of depression and anxiety (Gunawan, 2020).

According to research by M. Cho (2019), it is explained that the quality of life perceived by the community is closely related to psychological factors including stress, anxiety and depression that can affect the quality of life. (Cho, 2019).

2. Method

The method used is a descriptive survey. Respondents used in this study were post-flood victims who were willing to fill out google forms online. The researcher applied for a research survey permit issued by STIKes Wijaya Husada Bogor and submitted to the head of the Nanggung sub-district. After obtaining a research permit, the researcher met with the head of the Nanggung sub-district to ask for permission and explain the research procedures to be carried out by the researcher including the media and instruments to be used. Inviting prospective research respondents through a Zoom Meeting, given a depression level questionnaire and a questionnaire about quality of life via Google Form, then. Each data that has been obtained is then tabulated for data analysis. The data analysis technique used univariate and bivariate analysis with chi square test.

3. Results and Discussion

This research was conducted in August 2021 for 1 day via Google Forms.

Table-1 : Frequency Distribution Of Post-Flood Depression Levels In Nanggung Sub-District

Depression Level	Frequency	%
Light	2	3,3
Medium	16	26,7
Heavy	42	70,0
All Total	60	100,0

Based on table 1, the distribution of the frequency of depression levels in disaster-affected communities in Nanggung District in 2021, the results showed that from 60 respondents, the data on the frequency distribution of depression levels in the severe category was 42 people with a percentage of 70%.

Table-2 : Frequency Distribution Of Post-Flood Quality Of Life In Nanggung Sub-District

Quality Of Life	Frequency	%
Good	14	23,3
Bad	46	76,7
All Total	60	100,0

Based on table 2 46 (76.7%) respondents experienced a poor quality of life.

Table-3 : The Relationship between Post-Flood Depression Levels with Quality of Life Levels in Nanggung Sub-District

Depression Level	Quality Of Life				All Total		P value
	Good		Bad				
	F	%	F	%	F	%	
Good	0	0	2	3	2	3	0,034
Medium	1	2	15	25	16	27	
Bad	13	22	29	48	42	70	
All Total	14	24	46	76	60	100	

Based on table 3, it was found that 29 (48%) respondents with a bad level of depression with poor quality of life, the results of further analysis with chi square analysis showed a p value of 0.034 or p value < 0.05 which means that there is a relationship between depression level and post-flood quality of life in Nanggung Sub-District.

Depression Level in Post-Flood in Nanggung Sub-District

Based on table 1, it can be seen that of the 60 respondents who had bad depression, 42 respondents (76.7%). The level of depression in this study was measured using a questionnaire with a score < T mean which means good and if score > T mean it is said to be bad.

The results of this study are in line with research conducted by Erni Agustina Setiowatid with the title "The relationship between depression level and quality of life in the people of North Semarang who experienced the 2014 Rob flood". % at moderate levels, and 58.69% at high levels or experiencing severe depression (Setiowati and Kuncoro, 2019).

Post-traumatic stress disorder research conducted by Endiyono and Hidayah on victims of landslides in Jemblung Hamlet, Banjarnegara Regency on 38 respondents. Results: Respondents who experienced PTSD symptoms were 30 respondents (78.9%), while respondents who did not experience PTSD symptoms were 8 respondents (21.1%) (Endiyono and Hidayah, 2019).

Post-traumatic stress disorder (PTSD) is an intense physical and emotional response to thoughts and reminders of events that persists for weeks or months after the traumatic event. Symptoms of PTSD are divided into three types, namely reviving, avoidance and increased arousal (Greenberg, Brooks and Dunn, 2015).

Based on the results of research conducted by Wenjie Dai, et al (2016) stated that as many as 51 respondents (15.89%) were diagnosed with PTSD, the current prevalence rate of PTSD shows that natural disasters, such as floods can affect the mental health of victims in a long time (Dai *et al.*, 2016).

Many flood victims experience symptoms of depression, anxiety and stress (Marzuki, Mustaffa and Khalid, 2017). It is also supported by research conducted by Abdullah S, et al (2015) which stated that of 300 respondents, 74 respondents who experienced depression (24.7%), 137 respondents who experienced anxiety (45.7%) and stress as many as 40 people (13.3%) (Abdullah *et al.*, 2015).

People who live in flood-prone areas experience anxiety, such as research conducted by Lamba CT, et al (2017) which states that of the 30 respondents who experienced mild anxiety disorders as many as 10 people (33.3%), moderate anxiety disorders as many as 12 people. (40%) and severe anxiety disorder as many as 6 people (20%) (Lamba, Munayang and Kandou, 2017).

Quality of Life of the Post-Flood Community in Nanggung District, Bogor Regency

The results of research conducted by researchers in the community in Nanggung District in 2021 showed the quality of life with 60 respondents divided into 2, namely: good as many as 14 respondents (23.3%) and bad as many as 46 respondents (76.7%). Quality of life in this study was measured using a questionnaire with a

score > T mean which means bad and if score < T mean it is said to be good.

The results of this study are inversely proportional to those conducted by Hidayat FS, et al (2020) most of the flood victims have a moderate quality of life as many as 33 respondents (35.5%), and a small proportion have a very poor quality of life as many as 2 respondents (2, 2%) (Hidayat, Priambodo and Nurhakim, 2020).

Quality of life according to the World Health Organization Quality of Life (WHOQOL) Group, is defined as an individual's perception of the individual's position in life in the context of the culture and value system in which the individual lives and its relationship to goals, expectations, set standards and one's concerns (Fajar Adhie Sulistyo, 2018). Quality of life is defined as individuals' perception of their position in life in the context of the culture and value system in which they live and in relation to their goals, expectations, standards and concerns (WHO, 2020).

According to research conducted by Ony Wijagsono, et al (2019), it is stated that the Trucuk District community in dealing with post-floods is through physical and non-physical adaptation. Physical adaptations carried out by the community and the government in order to improve physical conditions such as elevating houses, repairing irrigation networks, building dams and building embankments along rivers. Non-physical adaptation carried out by the community and government is the existence of an early warning system that aims to detect flood hazards early and also with community assistance in dealing with floods such as mutual cooperation in all matters before and after flooding, providing solutions to increase resilience and adaptation to flood disasters (Wijagsono, Muryani and Prihadi, 2019).

It is also supported by research conducted by HZ Tan, et al (2016) which states that floods have a major impact on the QOL of residents in affected areas, the effects of floods result in worsening living conditions such as food shortages, difficulty in accessing medical care, drinking water pollution, disruption of drinking water purification, disruption of water purification and sewage systems and the spread of infection (Tan *et al.*, 2004).

The Relationship between Depression Level and Quality of Life Post-Flood in Communities in Nanggung District, Bogor Regency

Based on table 3, it was found 29 (48%) respondents with bad depression level with poor quality of life, the results of further analysis with chi square analysis showed p value 0.034 or p value < 0.05, which means there is a relationship between depression level and post-flood quality of life in community in Nanggung District, Bogor Regency.

According to research by Johari and Marzuki (2017) explaining that the quality of life perceived by the community is closely related to psychological factors including stress, anxiety and depression that can affect

the quality of life of the victim and is defined as a life experience to identify and satisfy nature and is influenced by background, health. and one's situation (Marzuki, Mustaffa and Khalid, 2017) .

There is a lot that needs to be done in terms of flood education in the community, as well as training for emergency aid providers to reduce the possible negative effects of psychosocial factors on individual quality of life, according to research conducted by Marzuki NA, et al (2017) showing data there is a significant relationship, quite strong and negative relationship between stress and quality of life (r=0,320 p<0,05), anxiety and quality of life (r=0,348, p<0,05) and depression and quality of life (r=0,305, p<0,05). These results indicate that a high quality of life will reduce stress, anxiety and depression levels of flood victims (Marzuki, Mustaffa and Khalid, 2017).

Floods are terrible disasters that affect people's lives, disasters affect people in different ways and many people experience post-traumatic stress disorder (PTSD) as a result of changes in daily routines and loss of messages in life. These changes further affect their quality of life (Othman *et al.*, 2016).

Supported by research conducted by Marzuki NA, et al (2017) stated that there is a relationship between stress and the quality of life enjoyed by flood victims (r = -324, p < 0.05), the relationship obtained is negative where the higher the stress, the higher the stress. the lower the quality of life of the victim, and conversely the lower the stress experienced, the higher the

quality of life (Marzuki, Mustaffa and Khalid, 2017). the same as the research conducted by Melti (2018) which stated that there was a significant relationship between depression and negative quality of life, meaning that the higher the depression, the lower the quality of life score (Melti Suriya, 2018).

4. Conclusion and suggestion

From the results of this study it can be concluded that there is a relationship between the level of depression and the post-flood quality of life in the community in Nanggung District, Bogor Regency. Then for further researchers, it is hoped that they can continue this research by using other methods of Quality Of Life Post-Flood Disasters as a comparison.

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