

MENTAL HEALTH INTERVENTION FOR TADULAKO UNIVERSITY STUDENTS AFTER A NATURAL DISASTER (EARTHQUAKE, TSUNAMI, AND LIQUEFACTION)

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ABSTRACT

Objective: This study aims to determine the effectiveness of Psychological First Aid (PFA) intervention in reducing mental health symptoms for Tadulako University students after a natural disaster.

Methods: The study design was a quasi-experimental pretest and posttest without a control group. 84 Tadulako University students were purposive sampling selected and willing to participate Psychological First Aid (PFA) intervention for 3 days. Collecting data using interviews and questionnaires, and data analysis techniques used t-test.

Results: This study found that the intervention of the Psychological First Aid (PFA) results showed a decrease in stress, anxiety, and depression symptoms ($p = 0.00$) of Tadulako University Students

Conclusion: Psychological First Aid (PFA) intervention effectively reduces mental health symptoms (stress, anxiety, depression) of Tadulako University Students.

KEYWORDS: Disaster; stress; anxiety; depression; PFA Intervention.

I. INTRODUCTION

A natural disaster (earthquake, tsunami, and liquefaction) that occurred on September 28, 2018 in the province of Central Sulawesi (Palu City, Sigi Regency, Donggala Regency) resulted in the loss of life in the form of 4,340 people who were declared dead, 4,438 people were injured, and material losses reached 18.48 trillion.¹ In disaster management, reconstruction of resources and infrastructure is prioritized.^{1,2} Meanwhile, dealing with the mental health of people affected by disasters received less attention even though this mental health has long-term effects.^{1,2} Previous studies have shown that mental health morbidity; anxiety; 7-42%, your prolonged grief; 28-41%, depression; 5-38%, post-traumatic stress disorder; 11-89%, and substance abuse; 3-24%.¹⁻⁴

One of the interventions that can reduce the morbidity of mental health is the Psychological First Aid (PFA). Psychological First Aid (PFA) developed in America by National Child Traumatic Stress Network and National Center for PTSD.⁵ Psychology First Aid (PFA) is one approach that can be used to overcome the impact of an emergency or disaster situation and minimize the impact caused by an emergency or disaster on an individual.⁶

Psychological First Aid (PFA) is designed to reduce the initial difficulty caused by traumatic, to encourage short and long-term adaptive coping.⁷ Psychological First Aid (PFA) exists as a simple model and is expected to help recovery, by caring for others.⁸ Based on the above, the research objective is to determine the effectiveness of Psychological First Aid (PFA) intervention in reducing mental health symptoms (stress, anxiety, and depression) of Tadulako University students after a natural disaster (earthquake, tsunami, and liquefaction), Province of Central Sulawesi.

II. METHOD

The study design was a quasi-experimental pretest and posttest without a control group. Conducted 6 months after a natural disaster (earthquake, tsunami, and liquefaction), Province of Central Sulawesi.

Population and study setting

The study setting started in April 2019 and ended in June 2019. The criteria for selecting the population were students aged 19-22 years, male and female, experienced a disaster (earthquake, tsunami, liquefaction, Disaster exposure in the form of lost/damaged house, or a family member who died and were willing to take part in the research. With the pretest using the stress scale, anxiety scale, and depression scale high category of data collection using the DASS42 questionnaire.

Intervention

Psychological First Aid (PFA) interventions are used to reduce mental health symptoms (stress, anxiety, and depression) of the 84 students of the University of Tadulako randomly selected and willing to participate in the intervention for 3 days. WHO (2013) in Psychological First Aid: Guide for field workers, developed a framework for Psychological First Aid (PFA) consisting of three principles of action to help, namely; Look, Listen and Link. Look and Listen can be interpreted as an effort to see by entering into a disaster environment to know, listen to, and understand the needs of people affected by the disaster.⁹The steps are⁹:

Step 1. Preparation

In the preparation stage, the things that must be possessed are initial knowledge about the disaster, what happened (type of disaster, at what stage the handling was carried out, the needs of the survivor, and the assistance needed).

Step 2. Introduce yourself and initiate contact

Introducing yourself and initiating contact are important things to be able to move on to the next process, it is hoped that you can build a trusting relationship. In this process the things that should be conveyed are identity, request for permission to hold talks, the purpose of being there, offering assistance, keeping personal information confidential from seizures. On the other hand, things that shouldn't be done are: interrupting the conversation, forcing the sufferer to tell a story.

Step 3. Provide a sense of security

In this stage, what Psychological First Aid (PFA) service providers need is to provide a sense of security and provide for the basic needs of the survivor. Always stay calm when talking to people who are suffering. Show concern but be a reassuring presence. Restoring a sense of security is the main goal after a disaster, a sense of security will be able to reduce the stress and worry that survivors feel, due to losing family members, or accompanying when the family has serious problems.

Step 4. Encourage functioning

In this stage, what a survivor must do is to provide a sense of comfort with verbal and nonverbal behavior to the survivor, especially for those who are very grieving or emotional, Psychological First Aid (PFA) service providers are expected to teach simple ways to manage stress, for example by relaxing, encourage the survivor to keep and be together with the family, seek reunification with the separated family, inform the sufferer regarding the desire to describe the occurrence of the disaster that has just been experienced, help the survivor connect to available sources of assistance.

Step 5. Facilitating survivor for Recovery

At this stage, the service provider seeks to encourage the sufferer to participate in the post-disaster recovery process and to help the person develop a follow-up plan. In such cases, it is important to ask questions and follow up. In this stage, more efforts are made to encourage survivors to return to their pre-disaster routines, involve sufferers in an effort to meet their needs, and provide opportunities for fellow sufferers to help and provide support.

Variables, data collection and data analysis

Mental health variables are measured through; 1) stress symptoms in the form of mental disorders faced by a person due to pressure both from within and outside the individual; 2) Anxiety symptoms in the form of

excessive tension characterized by feelings of worry, uncertainty, or fear. 3) depressive symptoms in the form of sad feelings that have a negative impact on thoughts, actions, feelings

Data collection used the DASS42 questionnaire which has been used widely in Indonesia, where the DASS42 questionnaire has a simple and easy administration. The DASS42 questionnaire was used to measure the stress scale, anxiety scale, and depression scale before and after the PFA intervention. The DASS42 questionnaire has four answer options in the form of:

0: Doesn't suit me at all, or never.

1: It suits me to a certain level, or sometimes.

2: I think the limits of what can be considered, or quite often.

3: It suits me, or often.

DASS42 questionnaire data processing through editing, coding, tabulating, scoring processes. The results of the data processing were then consulted with the adjusted norms into three categories, namely; low; moderate; high.

This research has obtained permission from the Rector of Tadulako University. Consent in selecting a sample of involved students through informed consent. Data collection through interviews was carried out after the implementation of the intervention PFA. Data collection through interviews aims to find out what lessons the respondents got from the intervention?

In this research, the data analysis technique used is descriptive analysis and t-test.

III. RESULT

Characteristics of the sample students aged 19-22 years old, with a female; 63.10%, and male; 36.90%, total samples 84 with high categories of mental health symptoms (table 1).

Table 1 Characteristics of the sample with Mental Health Symptom.

<i>Mental Health Symptom</i>	<i>Gender</i>					
	<i>Male</i>		<i>Female</i>		<i>Male & Female</i>	
	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>
Stress	3	9.68	5	9.43	8	9.52
Anxiety	21	67.74	38	71.70	59	70.24
Depression	7	22.58	10	18.87	17	20.24
	31	36.90	53	63.10	84	100

Source: Primary Data, 2019.

Intervention

84 students of Tadulako University participated in Psychological First Aid (PFA) intervention. The implementation of Psychological First Aid (PFA) intervention was carried out for three days with pretest and posttest showed a decrease in stress, anxiety, and depression symptoms, and the result showed p-value = 0.00. It means Psychological First Aid (PFA) intervention effectively reduces stress, anxiety, and depression symptoms (table 2).

Table 2 Mental Health Symptom Before and After Interventions.

<i>Mental Health Symptom</i>	<i>Mean and SD</i>		<i>Correlation</i>	<i>T</i>	<i>p-value</i>
	<i>Before Intervention</i>	<i>After Intervention</i>			
Stress	M 14.88, SD 2.532	M 9.88, SD3.603	.530	4.537	.003
Anxiety	M 14.07, SD2.753	M 9.41, SD3.286	.557	12.429	.000
Depression	M 14.35, SD 2.783	M 9.82, SD3.377	.579	6.496	.000

Paired Sample T-Test

Source: Primary Data, 2019.

Interview Results

The results of interviews of mental health intervention effective in reducing stress, anxiety, and depression symptoms because there are four important elements in Psychological First Aid (PFA) where respondents say that Psychological First Aid (PFA) gives them a sense of security, connection, self-efficacy, and gives hope to carry out daily routines.

IV. DISCUSSION

The results showed that the Psychological First Aid (PFA) intervention effectively reduced stress, anxiety, and depressive symptoms ($p < 0.000$) of Tadulako University students. This finding supports previous research which Psychological First Aid (PFA) intervention using reduce acute stress by addressing post-disaster stressors.¹⁰

The effectiveness in reducing stress, anxiety, and depression symptoms is because there are four important elements in Psychological First Aid (PFA) where respondents say that through Psychological First Aid (PFA) gives them a feeling of security, connection, self-efficacy, and providing hope to go through the daily routine. This finding supports a previous study in which Psychological First Aid (PFA) intervention using establish safety and security to promote adaptive coping and problem-solving; and help the affected people obtain additional resources to better cope with their current circumstances and regain a feeling of control.¹⁰

There are still shortcomings of this study, one of which is not using a control group. Future studies suggest using a control group to see if the intervention given the right effect is to decrease mental health morbidity.

V. CONCLUSION

Considering that disaster events are no longer rare in everyday life, it is recommended that Psychological First Aid (PFA) be included in disaster management simulation programs because Psychological First Aid (PFA) intervention effectively reduces stress, anxiety, and depression symptoms.

Conflict of interest

The authors declare no conflict of interest.

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