The Prevalence of Stress among Medical Students Post-disaster in Central Sulawesi

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Background. Stress is a psychological disorder that often causes psychological problems in individuals. Stress is a response of body both physically, mentally, and emotionally to events that are not expected to occur. Students have a high level of stress because of difficulties in adjusting to higher education. In addition to academic factors, stress can also occur due to other factors such as natural disasters.

Aim. The study aims to measure stress level among students post natural disasters (earthquakes, tsunamis and liquefaction) in Palu City in 2018.

Method. The study was descriptive observational with total sampling on students of the Faculty of Medicine, Tadulako University. The sample is 100 students.

Result. The result revealed that 23% of medical students enrolling 2018 in Faculty of Medicine, Universitas Tadulako suffered stress ranging from mild to severe. Stress level among men students is higher than that on women. 13.3% and 6.7% of male students suffered moderate and severe stress respectively.

Key Words: Stress, Post-disaster, mental disorder, students

Introduction

Stress is a psychological disorder that often causes psychological problems in individuals. Stress is a response of body both physically, mentally, and emotionally to events that are not expected to occur in human life. An event that can cause a stress response is called a stressor (Rasheed et al., 2018). While some stressors potentially cause mental disorders, some others do not. (Mangindaan and Dharmono, 2017).

Stress can be divided into five levels; normal, mild, moderate, severe, and extremely sever. Stress has symptoms such as tension, cannot be relaxed, sensitive, irritable, easily surprised, nervous, restless, timid, intolerant of interruptions or delays (Psychology Foundation of Australia, 2010).

Some studies found high stress levels iamong medical students with various types of academic stressors. Research related to stress in medical education in Arabia also shows that stress, depression, and anxiety are very common in medical students.

In addition to academic stressors, stress can also be caused by other factors such as trauma. Trauma is a permanent memory of a bad event that befalls someone or someone else such as a natural disaster, death and so forth. Earthquakes and its afterwards can cause liquefaction hazards that can damage buildings and infrastructure facilities, especially in urban areas in Indonesia. Loss of facilities and family members can cause depression, stress, and anxiety. Therefore this research was conducted to see the description of the stress level students enrolling 2018 in the Faculty of Medicine due to post-earthquake, tsunami and liquefaction disasters.

Methods

The study applied descriptive observational. The data were collected with an online questioner. The questioners were distributed in Whats App group of 2018 student to be filled. There were 100 students out of 144 students gave their response. The instrument is DASS 21, however the paper only focus on stress.

Result

The study observed 30 males and 70 females. The result revealed that 23% of medical students enrolling 2018 in Faculty of Medicine, Universitas Tadulako suffered stress ranging from mild to severe. Stress level among men students is higher than that on women. 13.3% and 6.7% of male students suffered moderate and severe stress respectively. 15.7% of male students experienced mild stress and 7.2% suffered moderate stress. For more detail, look at table 1 below.

Table 1. Stress Category according to Gender

Gender		Stress Category				Total
		Normal	**Mild**	**Moderate**	**Severe**	
Male	n	23	1	4	2	30
	%	76.7	3.3	13.3	6.7	100
Female	n	54	11	5	0	70
	%	77.1	15.7	7.2	0	100

Sources: Primary data, 2018

The age of respondent ranged from 17-20 years old. 44% of respondents were 18 years old, and 39% were 19 years old.

Table 2. Stress Category according to Age

Age		Stress Category				Total
		Normal	**Mild**	**Moderate**	**Severe**	
17 years	n	6	2	1	1	10
	%	60	20	10	10	100
18 Years	n	36	5	3	0	44
	%	81.8	11.4	4	0	100
19 Years	n	30	5	3	1	39
	%	76.9	12.8	7.7	2.6	100
20 Years	n	5	0	2	0	7
	%	71.4	0	22.2	0	100

Sources: Primary data, 2018

Discussion

According to Hans Selye (1976, citation by Fink, 2017) stress is defined as part of everyday human experience with various problems such as surgical trauma, burns, emotional disturbances, mental or physical, pain, fear, need for concentration, drug poisoning - drugs, even unexpected successes that require individuals to change their lifestyle. Stress is a threat to someone who produces feelings of anxiety, emotion or tension, and also difficulties in adjusting to certain situations (Fink, 2017).

Stress can also be called a mental emotional disorder. This condition indicates that individuals are experiencing psychological changes. Stress or mental emotional disorders can be experienced by each individual in certain circumstances such as stressful circumstances. This condition can be cured if handled properly, but can continue to be a worse condition if not handled properly (Ministry of Health, 2013). Someone experiences mild stress, stress can provide a positive and good effect, for example, can help someone become more productive and as a motivation to achieve something. However, if stress is felt very heavy, it can have a negative effect and is very dangerous for the person such as suicide (Klinic Community Health Center, 2010). Every individual must experience stress and cause tension which is the result of stress that is not handled well, where one cannot overcome the problem at hand. Some people can overcome the pressure they face but some cannot cope with the pressure which ultimately has a bad effect (Essel and Owusu, 2017).

Thousands of studies have been conducted related to stress both in normal condition and abnormal condition (high level of stressors) such as environmental shock, stress related work and stress related study among students. Burger and Scholz (2016) conducted a study to determine the relationship between learning styles Kolb and the psychological status of students of the

preclinical faculty of the Faculty of Medicine, University of Erlangen. The method used in this study was observational analytic with a cross-sectional approach. The subjects in this study were 530 medical students from semester 1 - 4 in the winter of 2012/2013. The results obtained a significant relationship between each student's learning style and expression of a sense of coherence, as well as symptoms of cognitive and emotional fatigue. Student learning styles differ significantly in these same parameters. This study also shows that learning styles and types of learning not only affect learning performance, but also relate to a sense of coherence and psychological illness.

Kimatian et al. (2017) conducted a research to analyze stress, tense, and how to overcome it in a non-directed learning style. The method used in this study was descriptive observational. The subjects in this study were 296 students in the post-graduate education program in anesthesiology. The results obtained were that students with undirected learning styles showed more stress and tension and fewer ways to overcome them.

In contrast, Faustina and Agus (2017) studied the link between learning style and mental disorders (depression and anxiety) in preclinical students in Faculty of Medicine, Atmajaya University in 2015. The study found that there was not significcant correlation between learning style and depression and anxiety among the students.

Conclusion

In conclusion, the study found that stress were found more in men compared to women students. 23% of Medical students in Universitas Tadulako. Stress level among men students is higher than that on women, 13.3% and 6.7%.

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