DEPRESSION, ANXIETY, AND STRESS AMONG STUDENTS IN SURABAYA DURING COVID-19 PANDEMIC

DEPRESI, KECEMASAN, DAN STRES MAHASISWA DI SURABAYA SELAMA PANDEMI COVID 19

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Abstract

This study aims to determine the prevalence and levels of depression, anxiety, and stress among students during the COVID-19 pandemic in Surabaya. This research also investigates the relationship among levels of stress, anxiety, and depression. This study used a cross sectional approach as the research design and purposive sampling as the sampling technique. Participants in this study were 207 active students of the Faculty of Psychology, Hang Tuah University, Surabaya. The instrument used in this research is the DASS-42 questionnaire distributed online. Data analysis was conducted using Pearson correlation test. The results of data analysis showed that there was a strong positive relationship between depression level and anxiety level (p = 0.000, p < 0.05), strong positive relationship between depression level and stress level (p = 0.000, p < 0.05), as well as strong positive relationship between stress levels and anxiety levels (p = 0.000, p < 0.05). In addition, this research results explained that students have mild to very severe anxiety (36.3%), stress (31.9%), and depression (31.8%) during the Covid-19 pandemic. The results of this study are expected to provide information and support in overcoming the psychological problems of students during the Covid 19 pandemic.

Keywords: depression, anxiety, stress, DASS, Covid 19 pandemic, student

Abstrak

Penelitian ini bertujuan untuk mengetahui prevalensi level depresi, kecemasan, dan stres beserta tingkatannya di kalangan mahasiswa pada saat pandemi covid 19 di Surabaya. Selain itu, penelitian ini juga melihat hubungan antara level stress, kecemasan, dan depresi. Penelitian ini menggunakan pendekatan cross sectional sebagai desain penelitian dan teknik sampling yang digunakan adalah purposive sampling. Partisipan dalam penelitian ini adalah mahasiswa aktif Fakultas Psikologi Universitas Hang Tuah Surabaya yang berjumlah 207 mahasiswa. Instrumen penelitian ini menggunakan kuesioner DASS-42, disebarkan melalui google form. Teknik analiss data menggunakan uji korelasi pearson. Hasil analisis data menunjukan bahwa terdapat hubungan positif yang kuat antara level depresi dan level kecemasan (p = 0.000, p < 0.05), terdapat hubungan positif yang kuat antara level depresi dan level stress (p = 0.000, p < 0.05), begitu pula terdapat hubungan positif yang kuat antara level stress dan level kecemasan (p = 0.000, p < 0.05). Selain itu, hasil data menjelaskan bahwa mahasiswa memiliki kecemasan ringan hingga sangat berat (36,3%), stress (31,9%), dan depresi (31,8%) pada saat pandemi covid 19. Hasil penelitian ini diharapkan dapat menjadi informasi dan memberikan penanganan terkait dengan kondisi psikologis mahasiswa saat pandemi covid 19 ini agar tidak terjadi yang lebih buruk.

Keywords: depresi, kecemasan, stress, DASS, pandemi Covid 19, mahasiswa

Introduction

Around the end of December 2019, Coronavirus Disease 2019 (Covid-19) was first discovered in the Wuhan area, China. This virus shocked the world and spread to various countries. According to the data from World Health Organization (WHO), 217 countries have been infected

with Covid-19 or C-PPK-Pneumonia-COVID-19-With-Complications. In general, corona viruses are found in humans and animals without causing infection (Schmidt et al., 2005). However, some types of corona viruses from animals may infect humans, transmitted between humans, and cause a pandemic (Yuliana, 2020)

The covid-19 can spread through droplets of people with coronavirus, such as through aerosols, coughing, sneezing, even when the infected person is exhaling. Since the virus was generated rapidly, it may easily spread to the environment and survive in places such as floors or other surfaces. Initial symptoms include cough, fever, and shortness of breath. However, some people who do not experience these symptoms are called 'people without symptoms' (OTG). The incubation period for this coronavirus is about 1-14 days.

Based on data from WHO as of 27 May 2020, around 5,491,678 cases were indicated as positive for COVID-19 with 349,190 cases spread throughout the world. Likewise in Indonesia, according to data from Covid19.go.id, around 23,851 cases were declared positive and 1,473 mortality cases due to COVID-19. Covid 19 cases in Surabaya, East Java showed a significant upward trend. The total number of patients indicated positive for Covid 19 in East Java almost reached 4000 people. Thus, East Java became the area with the highest number of residents with confirmed positive cases (Kompas.com).

The spread of this virus is relatively fast. Thus, the Indonesian government has made policies to stop the spread of this virus, including psychological distancing and Large-Scale Social Restrictions (PSBB). PSBB itself is a restriction on certain activities in religious places, public facilities, workplaces, and education institutions. The government has determined that the process of teaching and learning activities from early childhood education to higher education is carried out online. This policy demanded lecturers and students to adapt quickly to the situations because they still have to continue teaching and learning activities in accordance with the curriculum (*SE Mendikbud*, 2020)

Previous research showed that around 15-25% of students need mental health support during the pandemic covid 19 (Mahardika, 2020) . This situation happens because after nearly two months of studying at home, students experience boredom and erratic routines. These conditions influence the psychology of students because many students are depressed by many assignments given by lecturers, online learning activities that require a significant internet quota, limited access or facilities, and teaching and learning processes that do not work effectively. These barriers may cause students to experience psychological trauma, which makes learning demotivating (Nurkholis, 2020) These factors also make students experience stress during the COVID-19 pandemic.

The pandemic will indirectly cause psychological mental health consequences, such as stress, anxiety, worry, panic, and depression (Hashemian et al., 2006). However, the three psychological symptoms such as stress, anxiety, and worry are related to each other. The anxiety, stress, and depression may decrease the body's immunity, and make the virus easily enter the

individual's body. Individual mental health is also influenced by information obtained from social media that may cause stress, anxiety, and fear. Confusion or hoax news also creates fear and anxiety among individuals, especially information about the increasing cases and deaths due to Covid-19.

An environment that is not suitable and stressful may cause the individuals to feel anxious, tense, and stressed. According to (Jovanovic, J et al., 2006) stress is more emphasized on the dualism of emotional abilities and thought processes as a process of interaction between humans and the surrounding environment. (Jensen & Nutt, 2015) stated that stress changes a person's perspective in overcoming problems. In addition, students who have high dissatisfaction may be more stressed in dealing with everyday life (Mahmoud et al., 2012).

The Covid-19 pandemic period gave almost similar mental reactions namely anxiety to every individual, including students. However, if this anxiety continues, it can lead to various problems, such as physical, cognitive, and even psychological disorders. According to (Kaplan,H et al., 1997) anxiety is a state in which individuals with bad thoughts sometimes deal with uncertainty and feelings of insecurity. (Jensen & Nutt, 2015) stated that emotional responses such as loneliness can increase an individual's level of anxiety.

There are three symptoms that occur when individuals experience anxiety. The first is physical symptoms, e.g. increased blood pressure, palms sweating, throat choking, and breathing difficulty. The second is behavior symptoms such as feeling irritable, withdrawn, easy to cry, and feeling helpless. The third is cognitive symptoms namely difficulty to concentrate, and lack of attention. Some people were obsessed with finding information related to covid 19, especially related to statistics of patients who are confirmed positive and the rate of daily mortality. This indicates that the individual's mental health is being disturbed (Nevid J et al., 2005). However, (Alvi et al., 2010) found that students' anxiety levels may decrease because students continue to adapt to the environment.

The impact of poor mental health problems can affect a person's behavior. The thinking and behavior of the people can trigger individual physical and emotional problems. When not handled properly, stress and anxiety may cause people to experience worse mental health problems such as depression. Based on Manpreet and Maheshwari (2015) stress is positively related to the development of anxiety and depression. In addition, these three problems may become a combination of negative emotions.

Another mental health condition is depression. Depression also affects the feelings and moods of individuals that may cause feelings of sadness and even loss of pleasure to do activities. It makes people tend to be lazy, always feel guilty, have difficulty sleeping, decreasing appetite, and even difficulty concentrating. The most extreme impact of this depressive disorder is that it can inhibit brain activity, which may lead to suicide attempt ((Marcus et al., 2012)

One of the most vulnerable groups of people to mental health problems during the pandemic are the teenagers, especially the students. Daniel (2013) stated that loneliness is one of the main factors that cause students to experience mental health problems. Furthermore, the same study found that levels of attachment were highly correlated with levels of mental health problems such as stress, anxiety, and depression among college students.

The purpose of the study was to determine the prevalence of stress, anxiety, and depression and their levels among students during the COVID-19 pandemic in Surabaya. In addition, this study also looked at the relationship between stress, anxiety, and depression. The results of this study are expected to be information related to the psychological condition of students during the COVID-19 pandemic so that nothing worse happens.

Method

The approach used in this research is cross sectional, while the sampling technique is purposive sampling. The subjects of this research are active students from the Faculty of Psychology, Hang Tuah University, Surabaya, with the total number of 207, with the age range of 16-23 years.

This study used questionnaire instruments to obtain demographic data and DASS (Depression Anxiety Stress Scale) to measure depression, anxiety, and stress. The Depression Anxiety Stress Scale (DASS) used in this research is developed by Lovibond and Lovibond (1995) which has been translated into Indonesian by (Damanik, 2006). This scale reveals the psychological status of individuals and also determines the level of negative emotional states. This instrument used a Likert scale consisting of 42 items. Each item on the Dass Scale has a rating marked with 0 for the statement of never, 1 for rarely, 2 for quite often, and 3 for often.

The questionnaire consists of three aspects, namely stress, anxiety, and depression with 14 questions for each aspect. Each answer score will be added up and the score ranges between the available ranges indicates the level of a person's emotional state. The 4 levels in this instrument are normal, mild, moderate, severe, and very severe. The total scores of ≤ 9, ≤ 7, and ≤ 14 are for the categories not experiencing depression, anxiety, and stress. On the other hand, scores above 9.7 and 14 are defined as experiencing depression, anxiety, and stress. The assessment indicators can be seen in table 1.1. Showing Cronbach's Alpha internal consistency coefficients for depression, anxiety, and stress scales of 0.83; 0.76; and 0.80 (Rekha, 2012).

Table 1. Levels of Depression, Anxiety, and Stress

Levels of	Depression	Anxiety	Stress
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Very Severe	>28	>20	>34

Results and Discussion

Characteristics of Participants

Demographic analysis data includes gender, ethnic background, family income, and study period, as can be seen in table 2. In general, the total sample consisted of 207 students with 28.9% male and 71.1% female. Based on the population, female students are more dominant than male students. The majority of 78.2% of the participants are Javanese. Tribes originating from outside Java such as Madura, Bali, Kalimantan, and others. Family income below IDR 5,000,000 - 7,500,000 constituted 44.9% of the total participants. Most of the participants underwent the first and third year of study.

Table 2. Characteristics of Participants (N = 207)

Characteristics	f	%
Gender		
Male	60	28.9
Female	147	71.1
Ethnic		
Javanese	162	78.2
Kalimantan	15	7.3
Madura	12	5.7
Balin	7	3.4
Other	11	5.4
Income (Rupiah)		
1,000,000- 3,000,000	22	10.6
3,000,000- 5,000,000	35	16.9
5,000,000-7,500,000	93	44.9
>7,500,000	57	27.6
Years of study		
1	75	36.2
3	62	29.9
5	47	22.7
7	23	11.2

The results of the psychological examination of students using DASS 42 showed that 141 (68.2) % were normal but 31.8% were depressed, which is divided into mild to very severe levels, namely 25 (12.2%) in the mild depression category, 22 (10.7%) in the moderate depression category, 12 (5.8%) in the severe depression category, and 7 (3.1%) with very severe depression. The mean depression score was 0.64 (SD $\pm$ 1.096).

The anxiety category showed that 92 respondents (44.4%) were in the normal category, around 19 (9.2%) had mild anxiety, 46 (22.2%) had moderate anxiety, 29 (14%) had severe anxiety, and 21 (10.2%) experienced anxiety. anxiety level is very severe with a mean anxiety score of 1.36 (SD $\pm$1.421). For the stress category, respondents indicated that around 141 (68.1%) were in the normal category, 22 (10.6%) indicated that they had mild stress symptoms, 27 (13.1%) experienced moderate stress, 10 (4.8%) had severe stress, and around 7 (3.4%) felt they had very severe stress.

Table 3. Distribution of Participants' Depression, Anxiety, and Stress (n=207)

Category	Level Score	n	%
Depression			
	Normal	141	68.2
	Mild	25	12.2
	Moderate	22	10.7
	Severe	12	5.8
	Very Severe	7	3.1
Anxiety	Normal	92	44.4
	Mild	19	9.2
	Moderate	46	22.2
	Severe	29	14
	Very Severe	21	10.2
Stress	Normal	141	68.1
	Mild	22	10.6
	Moderate	27	13.1
	Severe	10	4.8
	Very Severe	7	3.4

Pearson correlation is used to analyze the relationship between depression, anxiety, and stress levels of students during the Covid 19 pandemic. Table 4 shows the analysis of depression and anxiety (r = .645, p = 0.000, p > 0.05), these results indicate that there is a strong positive relationship between depression levels and student anxiety levels during the Covid-19 Pandemic. Likewise, related to the relationship between depression levels and stress levels, there are strong relationships (r = .734, p = 0.000, p > 0.05). Stress level and student anxiety level also have a strong relationship (r = .684, p = 0.000, p > 0.05).

Table 4.
Relationship between Depression, Anxiety, and Student Stress during
the Covid 19 Pandemic (n=207)

		depression	anxiety	stress
depression	Pearson Correlation	1	.645[**]	.734[**]
	Sig. (2-tailed)		.000	.000
	N	207	207	207
anxiety	Pearson Correlation	.645[**]	1	.684[**]
	Sig. (2-tailed)	.000		.000
	N	207	207	207
stress	Pearson	.734[**]	.684[**]	1

	Correlation		
Sig. (2-tailed)	.000	.000	
N	207 207		207

Discussion

This study aimed to describe the prevalence of depression, anxiety, and stress as well as the relationships between the three students of the Faculty of Psychology at the University of Hang Tuah Surabaya during the pandemic of covid-19. The current pandemic period is full of challenges and causes exhaustion for many people including students. On one hand, students are required to be able to adapt quickly to all conditions. On the other hand, pressure from the environment, the burden of lectures, the uncertainty of the situation lead to negative emotional impact ; (Dong & Bouey, 2020) and cause psychological problems (Moccia et al., 2020). This is in accordance with the research proposed by Kamal and Othman (2020) conducted in Iran, that the level of depression and anxiety was found in the country during the covid 19 pandemic.

Based on the data obtained, it was explained that the prevalence of depression, anxiety, and stress in students is quite high. The majority of respondents have symptoms that lead to mental health problems. The dominant mental health problem that respondents complain about is feeling anxious due to this pandemic condition, from the results of the data it is reported that they have mild to very severe anxiety (55.6%), stress (31.9%), and depression (31.8%). These results are strengthened by research from (Wang et al., 2020) which explained that in China around 16.5% experienced moderate to severe symptoms of depression, 28.8% experienced moderate to severe anxiety, and 8.1% experienced moderate to severe stress. This indicates that teenagers in this case who are students experiencing mental health problems need further attention.

The tendency of students to experience mental health problems such as depression, anxiety, stress is more or less influenced by the health information presented by the government through the media (Leung, 2008). Information such as how many patients have recovered from this virus, the availability of vaccine, and the status of infected locations (red zone) are associated with low levels of anxiety (Wang et al., 2020).

During the pandemic, students face economic issues to join classes through online media (Zhang et al., 2014) such as ZOOM, google classroom, or whatsapp group; where it costs more money to buy internet quota, and this becomes a financial burden. Thus, there is a relationship between the level of depression, anxiety, and stress related to economic status (Creamer et al., 2003)

The PSBB situation and physical distancing also make the people feeling uneasy and lonely. One of the factors that increase levels of depression, anxiety, and stress is having to deal with the feeling of homesickness and being far away from important people in their lives. This is also in accordance with the research conducted by (Daniel, 2013) and (Jensen & Nutt, 2015)who found that loneliness, isolation, and being away from friends can cause stress and anxiety.

The results of this study indicate that there is a relationship between depression levels, anxiety levels, and student stress levels in the COVID-19 pandemic conditions. The analysis using Pearson explains that there is a strong positive relationship between depression levels and anxiety levels, a strong positive relationship between depression levels and anxiety levels, and a strong positive relationship between stress levels and anxiety levels. A similar study from Madihie and Said (2015) also explained that there was a significant relationship between levels of depression, anxiety, and stress among counseling students in the University of Malaysia Sarawak, with the results showing that students experienced mild to very severe anxiety (55.6%), stress (31.9%), and depression (31.8%).

Conclusion

Based on the results of data analysis, it can be concluded that there is a positive and strong relationship between the levels of depression, anxiety, and stress of students in the covid 19 pandemic. Students reported experiencing mild to very severe anxiety (36.3%), stress (31.9 %), and depression (31.8%). This research is expected to increase self-awareness related to depression, anxiety, and stress during the COVID-19 pandemic and help to make coping strategies to improve mental health. This study can also become a guide for making mental interventions to prevent and reduce the negative mental health effects of this pandemic.

Suggestions

The results of this study is expected to help students to have a better understanding about levels of depression, anxiety, and stress, so that they can have good self-awareness about their mental health, so that they will be able to make coping strategies to overcome psychological problems to maximize their potential.

This study has limited time and has not discussed other factors that affect students experiencing the negative mental health in the pandemic.

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