Psychological Stress of Students during Learning From Home in COVID-19 Pandemic

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ABSTRACT

COVID-19 became a pandemic all over the world. It was first found in Wuhan, China. This pandemic also caused psychological pressure such as stress. Stress can be experienced by students who were forced to adjust to new method of learning. The method change from face-to-face to online learning. Therefore, students who cannot deal with it can get stressful.

This study aimed to know the stress level of students in Alauddin Islamic State University of Makassar and some factors that were thought to have a relation to the stress level.

This quantitative research, a cross-sectional study design used primary data conducted from August 1 until August 12, 2021 via google form. The respondent must be a student in Alauddin Islamic State University of Makassar from various faculties. The exclusion criteria was a student who refused to be a respondent. The total sample was 344 respondents. The data was analyzed through frequency for univariate and chi-square for bivariate analysis.

Most of the respondents tend to have normal levels of stress. Age, gender, and learning challenges were being the variable that had a significant correlation with stress level. Students in university became prone to get stress by the new normal era in education.

It requires the cooperation of various parties, both from the campus, the role of students, and the family. Alauddin Islamic State of Makassar can maximize counseling centers in all faculties, especially for those with psychological disorders.

Keywords: COVID-19, Learning From Home, Stress

INTRODUCTION

Coronavirus has been spread in several countries causing an outbreak. It was first found in China while the disease was named Coronavirus Disease 2019 (COVID-19). COVID-19 became a national public health emergency after a previous respiratory disease like Severe Acute Respiratory Syndrome (SARS). COVID-19 became a highly infectious disease with no specific treatment yet available (Liu et al., 2020; Wu et al., 2020).

One of the impacts of this pandemic was the development of crisis and negative emotions in several countries. This happened repeatedly caused a psychological crisis. Work pressure experienced, especially during the work from home period, causes psychological pressure which affected the emotional condition of workers. The emotional disorder became a concern of public health as an impact of COVID-19 pandemic (Duan & Zhu, 2020; Lima et al., 2020; Taylor et al., 2020).

Responding to the pandemic of COVID-19 in Indonesia, the government issued regulations regarding learning from home for students. The regulation issued by The Minister of Education and Culture set the guideline prohibited learning face to face and instruct schools and universities to learn from home (Press Conference Number: 137/Sipres/A6/VI/2020, 2020).

This regulation made a transition of learning from face-to-face to online method. Nowadays, there were some interactive technologies developed. Supporting this new method, teachers and students utilized some platforms or applications that were free and easy to use such as zoom, google meet, google classroom, WhatsApp, and etc (Bransford et al., 2000; Sari et al., 2020). Facing this new method both students and teachers have to adjust to this situation that called "New Normal Era".

This change can cause stress for some students especially students in university as a higher level of education. Therefore, through this research, we aimed to know the stress level of university students in Indonesia and some factors that was thought to have a relation to the stress level. Refers to the health protocol of COVID-19 to implement physical distancing, this research was conducted through an online survey.

METHODS

Participants

Data used a primary that was collected from a web survey to Alauddin State Islamic University of Makassar. It was cross-sectional data where all variables were given at the same time to the participant. The data were eligible to fill from August 1 until August 12, 2021 via google form. The survey used a purposive sampling where any students in Alauddin State Islamic University of Makassar can fill the questionnaire as long as it is still available. The online questionnaire was spread through WhatsApp to students and their lecturers. The researcher asked for the lecturers' help to forward the questionnaire to their students in Alauddin State Islamic University of Makassar. The exclusion criteria were a student who refused to be a respondent while the informed consent was given on the first page of the questionnaire. The total sample was 344 students from various faculty.

Procedures and Measures

This research used an online platform with an online questionnaire because Indonesia Government recommended the citizens minimize face-to-face interaction and suggest them stay at home. The questionnaire was taken from Depression Anxiety Stress Scales (DASS) with a 42-item self-report instrument designed by the Psychology Foundation of Australia. Specifically for stress measurement, there were 14 questions. Each question had four options with its score, consist of (Psychology Foundation of Australia, 2018) :

0 = Did not apply to me at all

1 = Applied to me to some degree, or some of the time

2 = Applied to me to a considerable degree, or a good part of the time

3 = Applied to me very much, or most of the time

After that, all scores from every question will be calculated and divided into four categories. The categories such as normal (0-14), mild (15-18), moderate (19-25), severe (26-33), and extremely severe (>34).

Statistical Analysis

There are some variables in this research. The independent variables were age, gender, final project status (thesis), learning media, and learning challenges. The dependent variable was the level of stress during learning from home in COVID-19 pandemic. Descriptive analysis was calculated

through frequency for univariate analysis and chi-square for bivariate analysis using statistical software.

Ethical Clearance

This research also has passed the ethical review process from Health Research Ethics Committee Universitas Islam Negeri Alauddin Makassar. The number of ethical approval was B.088/KEPK/FKIK/VII/2021 on July 01, 2021.

RESULTS

There were 344 samples of Alauddin State Islamic University of Makassar varying from all faculties. According to their level of stress, students tended to have a normal level of stress. But there was still a valuable proportion for an extremely severe level of stress. Even though the percentage was not high, it still become a concern for health practitioners (Table 1).

Table 1. Frequency Distribution of Stress Level of Students in Alauddin Islamic State University of Makassar in Covid-19 Pandemic (n=344)

Variables	n	%
Stress		
Normal	129	37.5
Mild	71	20.6
Moderate	65	18.9
Severe	51	14.8
Extremely Severe	28	8.1

Based on bivariate analysis, showed that age, gender, and learning challenge had significant correlation to stress level (p-value < 0.05). While final project status (thesis) and learning media had not. The proportion in each stress level showed that all categories of age tended to have a normal level of stress. But a respondent who has above 21 years old of age tended to have a higher proportion of extremely severe level of stress than other groups. While both men and women as gender category had the most normal stress level. But, based on extremely severe category, it showed that women tended to have a higher proportion to feel extremely severe stress than men (Table 2).

On learning challenge, although students felt bad internet connection, difficulty to focus on learning, limited internet quota, and illiterate electronic media usage as the challenge of online learning, most of them had a normal level of stress. While illiterate electronic media usage became a challenge that makes most students felt extremely severe in the term of stress (Table 2).

In this research, it was also divided students to have not started their thesis and currently working on their thesis in the final project status (thesis) variable. Based on in although most students had a normal level of stress but students who were currently working on their thesis had higher proportion to get extremely severe level of stress than those who have not start to do their thesis. According to learning media, students used WhatsApp, Zoom/Google Meet/Webex, Google Classroom, and Lentera as their learning platforms. Students who mostly used lentera had a higher proportion to get extremely severe levels of stress than other platforms (Table 2).

Table 2. Factors Associated to Stress Level of Students in Alauddin Islamic State University of Makassar in Covid-19 Pandemic (n=344)

Variables	Stress Level					P-value
	Normal	**Mild**	**Moderate**	**Severe**	**Extremely Severe**	
Age						
18 – 19 years	72 (46.5%)	28 (18.1%)	23 (14.8%)	23 (14.8%)	9 (5.8%)	0.040
20 -21 years	50 (32.1%)	38 (24.4%)	33 (21.2%)	21 (13.5%)	14 (9.0%)	
>21 years	7 (21.2%)	5 (15.2%)	9 (27.3%)	7 (21.2%)	5 (15.2%)	
Gender						
Men	37 (56.9%)	10 (15.4%)	9 (13.8%)	6 (9.2%)	3 (4.6%)	0.011
Women	92 (33.0%)	61 (21.9%)	56 (20.1%)	45 (16.1%)	25 (9.0%)	
Final Project Status (Thesis)						
Have not start	111 (39.9%)	59 (21.2%)	51 (18.3%)	38 (13.7%)	19 (6.8%)	0.131
Currently Working	18 (27.3%)	12 (18.2%)	14 (21.2%)	13 (19.7%)	9 (13.6%)	
Learning Media						
Whatsapp	13 (21.0%)	14 (22.6%)	17 (27.4%)	12 (19.4%)	6 (9.7%)	
Zoom/Google Meet/Webex	108 (41.7%)	51 (19.7%)	45 (17.4%)	36 (13.9%)	19 (7.3%)	0.294
Google Classroom	5 (38.5%)	5 (38.5%)	1 (7.7%)	1 (7.7%)	1 (7.7%)	
Lentera	3 (30.0%)	1 (10.0%)	2 (20.0%)	2 (20.0%)	2 (20.0%)	
Learning Challenges						
Bad Internet Connection	60 (39.5%)	33 (21.7%)	23 (15.1%)	25 (16.4%)	11 (7.2%)	
Difficulty to Focus	40 (32.5%)	25 (20.3%)	27 (22.0%)	17 (13.8%)	14 (11.4%)	0.026
Limited Internet Quota	29 (43.9%)	12 (18.2%)	15 (22.7%)	8 (12.1%)	2 (3.0%)	
Illiterate Electronic Media Usage	0 (0%)	1 (33.3%)	0 (0%)	1 (33.3%)	1 (33.3%)	

The factor that had significant relation with the level of stress were age, gender, and learning challenges. This study showed that the age group above 21 years had the largest proportion of experiencing severe levels of stress. This can be caused by various reasons such as students over the age of 21 years having a double burden in addition to lectures but also the completion of the final project and the obligation to complete memorization of juz 30. In line with the completion of the final project/thesis, this study also found that the proportion of students who were completing The final project was higher in experiencing stress in the very severe category compared to students who have not done the final project.

DISCUSSION

The transmission of coronavirus caused some problems because of its novelty. Besides a medical problem entitled COVID-19, this pandemic also caused mental disorders. Previous studies found that the widespread outbreaks of infectious diseases, such as COVID-19, were had a relation with mental illness and psychological distress (Bao et al., 2020; Chang et al., 2020; Gao et al., 2020; Wu et al., 2020; Yehudai et al., 2020). Kind of conditions includes stress, anxiety, depression, insomnia, anger, fear, stigma (Lin, 2020; Pakpour et al., 2020; Torales et al., 2020; Yehudai et al., 2020).

Another study also resulted that the stress caused by the COVID-19 outbreak manifested in most students in the university. It happened because they have achieved independence and they tended to worry about all aspects of COVID-19. Therefore their somatic symptoms were more severe than those of the primary schools' students, who are not independent (Liu et al., 2020). The stress because of COVID-19 pandemic could lead to anxiety and depression. Other surveys conducted reported that exposure to social media was positively correlated with negative emotions, which were anxiety and depression (Chang et al., 2020; Gao et al., 2020; Liu et al., 2020).

The stress as the impact from COVID-19 pandemic was relevant to research in university students. It was because they were more exposed to social media than other groups. Students in university were aware of all aspects related to COVID-19 pandemic. Besides, during the early stage of the pandemic, many stores in some countries were selling masks, alcohol, and other products as the prevention effort and control of the virus, but may the supply may be limited. It was probably caused the students were feeling anxious about the threat to life and health because of COVID-19 (Liu et al., 2020).

In this study, we investigated some factors that were assumed to have a relation with the level of stress in university students. Reported most participants had a normal stress level. However, there are still around 8.1% of respondents with very severe stress levels. Stress can occur in students due to pressure from deferred research projects, uncertain study schedules, and missed study and career opportunities exacerbated by upcoming college deadlines. In addition, the deteriorating economic situation has exacerbated the burden on students in paying tuition fees (Jenei et al., 2020).

A previous study showed that age had an effect on students' perceived stress levels, and there was a statistically significant difference in stress levels between age groups (P < 0.001). The level of stress experienced by those aged between 18 to 20 years is higher than others (Aslan & Pekince, 2021). Although, another study showed that the youngest students have the lowest coping skills. The results make it possible to conclude that students' maladaptive strategies for coping with stress, especially during a pandemic, may have long-term consequences for their psychophysiological health and academic achievement (Babicka-Wirkus et al., 2021). Therefore, all students over the age category should give a treatment to cover the possibility of getting extremely severe level of stress.

In addition to age, gender also had a significant effect on student stress levels. This study showed that the proportion of women to have very severe levels of stress was higher than that of men. This result was in line with previous studies in which women received significantly higher perceived stress scores than men (Limcaoco et al., 2020). A significant difference in stress levels in terms of gender was also found (P < .001) in another study where the stress level of female students was found to be higher (Aslan & Pekince, 2021). The reason for this finding may be related to gender differences in coping with stress.

The learning constraints which are also one of the factors that had a significant effect on stress levels also showed a tendency of a relationship where the proportion of learning constraints in this case lack of understanding of the use of electronic media is higher than other obstacles. Lack of understanding of the use of electronic media is certainly one of the big obstacles because, in the new normal era of learning, learning is done online which requires media. Research conducted by Komang and Yanti (2021) also shows that some respondents do not understand the use of electronic media during online learning (Komang & Yanti, 2021).

A previous study from Husky et al. (2020) showed that university students in France most experienced moderate to severe stress during learning from home. Students who still live alone or did not back to their family's home reported had significantly higher levels of stress (Husky et al., 2020).

Apart from parental involvement, another study also showed that religiosity had a significant correlation to academic stress. The students who have high religiosity can mostly control their stress in the learning period (Sari et al., 2020). Learn From Home (LFH) during the pandemic of COVID-19 can cause stress to students. It was because the teacher or lecturer gave a lot of assignments to students (Sarafino & Smith, 2014). Besides, this research found that the method of learning by the lecturer had significant correlation with the level of stress. Unacttractive learning method caused a moderate level of stress to students.

A previous study also stated a relationship between teacher support and academic stress. The higher support of the teacher, the lower the academic stress of students who experienced Learn From Home as an impact of COVID-19 pandemic (Sari et al., 2020). This transition of learning from face-to-face to online forced students to adjust to it. Some students can be adjusted well but some were not. These group who cannot adjust may stress.

To overcome this situation, it is needed to find out the effective strategies to prevent psychological effects because of COVID-19 pandemic include stress. Some of effective way that was done by some institutions, including academia. For example, Peking University provided a mental health handbook related to how to cope with stress and other psychological problems as the impact of COVID-19 pandemic. Besides, numerous psychiatric hospitals, counseling centers, and psychology departments in universities provided telephone hotlines to give psychological counseling (Bao et al., 2020; Ozamiz et al., 2020). In Indonesia, some organizations also provide a guideline to do learning from home for students.

CONCLUSION

As noted, most of the respondents tend to have a normal level of stress. Age, gender, and learning challenges were being the variable that had a significant correlation with stress level. Students in university became prone to get stress by a new normal era in education. Therefore, it requires the cooperation of various parties, both from the campus as a place for students to gain knowledge, the role of students in managing information, and the family as the closest person who can support the psychological condition of students. Alauddin Islamic State of Makassar can maximize counseling centers in all faculties, especially for those with psychological disorders.

Acknowledgements

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