

## Original Research

# Level Of Anxiety Among College Students During COVID-19 Pandemic

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### ABSTRACT

**Background:** The Coronavirus outbreak which has become a pandemic for more than a year could potentially cause health problems, including mental health. Mental health problems can occur to any group of people including the students because of the policy of learning from home using online learning technology. Mental health disorders or problems that may occur during the COVID-19 pandemic are high levels of anxiety.

**Methods:** It was quantitative with a cross-sectional design study. The sample was 344 respondents that were collected through purposive sampling. It was available from 1 to 12 August 2021 using Depression Anxiety Stress Scales (DASS-42) Questionnaire via a google form. The data was analyze through frequency for univariate analysis and chi-square for bivariate analysis using statistical software

**Results:** Based on the level of anxiety, the normal level was 13.1%; mild level was 8.7%; moderate level was 21.8%; severe level was 23.8%; extremely severe was 32.6%. The majority of respondents showed an extremely severe level of anxiety with a percentage. According to bivariate analysis, gender variable has a significant correlation to anxiety level while others have not.

**Conclusion:** It is recommended for the college to provide and develop student counseling centers in order to support the psychological condition of students.

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## INTRODUCTION

The Coronavirus outbreak which has become a pandemic in almost all countries over the world for more than a year affects many aspects of life. Indeed, the COVID-19 pandemic also has the potential to cause health problems, including mental health. The

psychological problems that accompany this pandemic of Covid-19 are rapidly adding to the public's health burden (Grubic et al., 2020; Liu et al., 2020).

In addition, the number of people with mental health disorders is projected to continue to increase as long as COVID-19 is still spreading and humans have not been able to adapt to this pandemic (Roy et al., 2020). Meanwhile, mental health disorders or problems that may occur during the COVID-19 pandemic are high levels of anxiety. This high anxiety can be caused by exposure to social media which simultaneously informs the status of the pandemic. Some of this information is inaccurate and redundant. This can have implications for mental health conditions and increase anxiety levels and cause people to feel depressed and emotionally exhausted (Roy et al., 2020; WHO, 2020).

Mental health problems can occur in students who are carrying out a pattern of learning from home using online learning technology. Regarding the use of online or online learning technology, research conducted by Hasanah et al (2020) shows that the majority of psychological problems experienced by students due to online learning are anxiety (Hasanah et al., 2020).

Universitas Islam Negeri (UIN) Alauddin Makassar is one of the universities that runs online learning methods during the pandemic. As an Islamic university, students of UIN Alauddin Makassar are not only required to be able to adapt to online learning but are also required to keep depositing the memorization of juz 30 to the Academic Advisor as a prerequisite for graduation. Those reasons can cause anxiety of even increase the level of anxiety of the students.

If it is not be solved soon, the students can prolong student completion time at university. Which can affect campus accreditation as the long term effect. Based on load analysis in adapting learning, the authors feel it is important to carry out the research entitled "Level of Anxiety among College Students during Covid-19 Pandemic: An-Online Based Survey".

## **MATERIALS AND METHOD**

This quantitative research is conducted using a cross-sectional design study. The sample was taken through purposive sampling with 344 respondents. Using *Depression Anxiety Stress Scales* (DASS-42), the questionnaire was given to students via a google form. The data collecting was conducted from 1 to 12 August 2021. The questionnaire has 14 questions and each question had four options with its score (Psychology Foundation of Australia, 2018). After that, all scores from every question will be calculated and divided into four categories. The categories such as normal (0-7), mild (8-9), moderate (10-14), severe (15-19), and extremely severe (>20).

This study had inclusion criteria which were registered as a student of UIN Alauddin Makassar, have a Student Identification Number, and willing to be a respondent in research. While the exclusion criteria was "did not fill out the questionnaire completely". The inform consent was given to respondent as the first page of questionnaire. If the students select "Yes" after read the inform consent then they can continue to the next question of DASS-42 questionnaire.

The independent variables were age, gender, period of learning, final project status, learning media, and learning challenges. The dependent variable was the level of anxiety during learning from home in the COVID-19 pandemic. Descriptive analysis

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

This was also has passed the health ethical process. The number of ethical approval from this study was B.088/KEPK/FKIK/VII/2021 on July 1, 2021.

## RESULTS

Univariate data analysis is data analysis to see the distribution of each variable based on the results of the study. In this study, the data used is categorical data.

**Table 1.** Frequency Distribution of Anxiety Level of Students in Universitas Islam Negeri Alauddin Makassar during Covid-19 Pandemic (n=344)

Variables	N	%
Anxiety		
Normal	45	13.1
Mild	30	8.7
Moderate	75	21.8
Severe	82	23.8
Extremely Severe	112	32.6

Based on the level of anxiety, the majority of respondents showed an extremely severe level of anxiety with a percentage of 32.6%. Meanwhile, the proportion of respondents who are in the mild category at the level of anxiety is very small with a percentage of 8.7%.

**Table 2.** Factors Associated to Depression Level of Students in Universitas Islam Negeri Alauddin Makassar during Covid-19 Pandemic (n=344)

Variables	Anxiety Level					P-value
	Normal	Mild	Moderate	Severe	Extremely Severe	
<b>Age</b>						
18 – 19 years	26 (16.8%)	20 (12.9%)	30 (19.4%)	34 (21.9%)	45 (29.0%)	0.084
20 -21 years	17 (10.9%)	10 (6.4%)	37 (23.7%)	40 (25.6%)	52 (33.3%)	
>21 years	2 (6.1%)	0 (0%)	8 (24.2%)	8 (24.2%)	15 (45.5%)	
<b>Gender</b>						
Men	19 (29.2%)	10 (15.4%)	17 (26.2%)	8 (12.3%)	11 (16.9%)	0.022
Women	26 (9.3%)	20 (7.2%)	58 (20.8%)	74 (26.5%)	101 (36.2%)	
<b>Final Project Status</b>						
Have not Started	38 (13.7%)	28 (10.1%)	60 (21.6%)	68 (24.5%)	84 (30.2%)	0.190
Being Started	7 (10.6%)	2 (3.0%)	15 (22.7%)	14 (21.2%)	28 (42.4%)	
<b>Period of Learning</b>						
1 <sup>st</sup> year	13 (14.4%)	10 (11.1%)	17 (18.9%)	22 (24.4%)	28 (31.1%)	0.450
2 <sup>nd</sup> year	15 (15.3%)	13 (13.3%)	17 (17.3%)	21 (21.4%)	32 (32.7%)	
3 <sup>rd</sup> year	5 (6.7%)	5 (6.7%)	22 (29.3%)	19 (25.3%)	24 (32.0%)	
4 <sup>th</sup> year	12 (16.4%)	2 (2.7%)	17 (23.3%)	18 (24.7%)	24 (32.9%)	
≥ 5 <sup>th</sup> year	0 (0%)	0 (0%)	2 (25.0%)	2 (25.0%)	4 (50.0%)	
<b>Learning Media</b>						
Whatsapp	2 (3.2%)	5 (8.1%)	11 (17.7%)	15 (24.2%)	29 (46.8%)	0.131
Zoom/Google	37 (14.3%)	23 (8.9%)	61 (23.6%)	61 (23.6%)	77 (29.7%)	
Meet/Webex	3 (23.1%)	2 (15.4%)	2 (15.4%)	4 (30.8%)	2 (15.4%)	
Google Classroom-	3 (30.0%)	0 (0%)	1 (10.0%)	2 (20.0%)	4 (40.0%)	
Lentera						

Variables	Anxiety Level					P-value
	Normal	Mild	Moderate	Severe	Extremely Severe	
<b>Learning Challenges</b>						
Bad Internet Connection	22 (14.5%)	15 (9.9%)	33 (21.7%)	36 (23.7%)	46 (30.3%)	0.708
Difficulty to Focus	13 (10.6%)	8 (6.5%)	23 (18.7%)	33 (26.8%)	46 (37.4%)	
Limited Internet Quota	10 (15.2%)	7 (10.6%)	18 (27.3%)	13 (19.7%)	18 (27.3%)	
Illiterate Electronic-Media Usage	0 (0%)	0 (0%)	1 (33.3%)	0 (0%)	2 (66.7%)	

According to bivariate analysis, gender variable has a significant correlation to anxiety level while others have not. Where the majority of respondents who have normal anxiety levels are male (29.2%). Meanwhile, the majority of respondents who have an extremely severe level of anxiety are female (36.2%). Based on age, the majority of respondents who are in the extremely severe category come from the age group > 21 years (45.5%). On final project status (thesis), the majority of respondents who have an extremely severe level of anxiety are completing their final project (42.4%).

According to the period of learning, the majority of respondents who experienced anxiety levels in the extremely severe category were 5<sup>th</sup> year period and above (50.0%) and at least they were in the 1<sup>st</sup> year period (31.1%). On the learning media, the majority of respondents who experienced the level of anxiety in the extremely severe category used WhatsApp as their learning media (46.8%) and at least used google classroom (15.4%). Based on learning challenges, the majority of respondents who have an extremely severe level of anxiety have learning difficulties in illiterate electronic media usage (66.7%) and the smallest have complaints of limited internet quota (27.3%).

## DISCUSSION

Anxiety is a psychological disorder that is often found in society, one of which is among students. Anxiety is getting worse considering that people are required to adapt to a normal life pattern (new normal) because of the Covid-19 pandemic that has never been lived before. Anxiety is one of the most common mental health problems. Anxiety is an emotion characterized by feelings of tension, worried thoughts, and physical changes such as increased blood pressure.

People with anxiety disorders usually have recurring intrusive thoughts or worries. They may avoid certain situations out of worry. They may also have physical symptoms such as sweating, shaking, dizziness, or a fast heartbeat (American Psychological Association, 2021). This study showed the majority of respondents showed an extremely severe level of anxiety with a percentage of 32.6%. Meanwhile, the proportion of respondents who are in the mild category at the level of anxiety is very small with a percentage of 8.7%.

The previous study showed the prevalence of anxiety in developing countries in adults and the elderly is 50%. The incidence of anxiety disorders in Indonesia is around 39 million people out of 238 million people (Husna & Ariningtyas, 2019). This number shows that the chance of developing anxiety disorders is still quite high, especially in adulthood. Things that can cause anxiety usually come from threats to biological integrity including disturbances to the basic needs of eating, drinking, warmth, sex, and threats to personal safety such as not finding self-integrity, not finding prestige status,

not getting recognition from others, and incongruence with self-views with the real environment.

Anxiety is caused by various factors such as predisposing anxiety in the form of tension arising from traumatic events, emotional conflicts experienced by individuals, frustration, medication and physical disorders (Dalami & Suliswati, 2010; Husna & Ariningtyas, 2019). In the recent development of education, it can be seen that the role of psychological factors in achieving achievement is very large.

It is undeniable that a student's learning achievement is also influenced by the student's personality. Many aspects of personality certainly influence students' attitudes in dealing with something, such as their characteristics, thoughts, motives, feelings, self-confidence, and others. If a student has a strong personality, he will have positive thoughts about learning outcomes, not be afraid of defeat, have a strong urge to do better than before, and believe in his potential, so that the student does not experience the anxieties that arise can interfere with learning (Widodo et al., 2017).

Anxiety depends not only on human variables but also on stimuli that evoke anxiety. Associated with this research, the anxiety faced by students can be caused by learning conditions that are not common to them before. The frequency of being in front of gadgets (laptops, notebooks, cellphones, etc.) is increasing due to online distance learning. The time for face-to-face socializing with friends is also indirectly reduced which can also be a trigger for the emergence of anxiety disorders (Novliadi, 2010; Widodo et al., 2017).

Anxiety in this study was divided into five categories, namely normal, mild, moderate, severe, and very severe. Based on these five categories, it is known that the highest proportion lies in students who experience anxiety in the very severe category. These results indicate that some students at UIN Alauddin Makassar have psychological disorders in the form of anxiety. This is different from the research conducted by Cao et al (2020) which explained that 0.9% of respondents experienced severe anxiety, 2.7% moderate anxiety, and 21.3% mild anxiety (Cao et al., 2020).

One independent variable that is significantly related to the level of anxiety is gender. Female respondents tend to experience a high level of anxiety compared to male respondents. This study is in line with several studies in which women's scores on COVID-19 anxiety were higher than men's scores in African university students (Birhanu & Hassein, 2016; Okafoagu et al., 2019; Rakhmanov & Dane, 2020).

Another study conducted on medical students also showed that women medical students had a higher prevalence of anxiety (38.0%, 95% CI: 27.6-49.5%) than male students (27.6%, 95% CI: 19.3-37.8%), but this difference was not statistically significant ( $p = 0.16$ ) (Quek et al., 2019). In addition, other studies have also shown that women have 1.5 times the chance of developing anxiety disorders than men. Psychosocial factors such as childhood sexual abuse as well as genetic and neurobiological factors are thought to be possible causes of the higher prevalence in women (Bandelow & Michaelis, 2015).

In addition to gender, there is no variable characteristic of the respondents in this study that affects the level of students' anxiety. However, although it was not statistically significant, there were some group trends in the independent variable showing a greater proportion of developing anxiety disorders in this case anxiety at an extremely severe level.

Based on the age variable, the proportion of students over the age of 21 years in the category of extremely severe anxiety is greater than that of other age groups. This study is in line with several studies such as those conducted on medical students in China. It is known that age has a significant effect on student anxiety levels where the age group of 21-25 has a higher level of anxiety than the 17-20 year age group (Shao et al., 2020).

Research conducted by Shamsuddin et al. (2013) also proved that students at Malaysian University in the older age group ( $\geq 20$  years) had higher anxiety levels/scores than other age groups (Shamsuddin et al., 2013). Other studies using multivariate analysis have revealed that older age is associated with higher levels of COVID-19 awareness and greater changes in future health behaviors (Chang et al., 2020).

In the variable of thesis completion status, the results of the analysis show that the proportion of students who are completing their final thesis is higher than students who have not completed their final project/thesis and suffer from an extremely severe category of anxiety. The period of writing the thesis potentially causes student anxiety. This is triggered by various factors such as the graduation target that is not achieved on time, the number of thesis revisions, difficulties in finding literature, and the difficult and constrained guidance process (Fikry & Khairani, 2017; Gunawati et al., 2006).

Another variable that does not have a significant effect but shows a relationship tendency is the study period variable. This study reveals that the higher the semester/study period of the students, the higher the level of their anxiety. This is demonstrated by the 5<sup>th</sup> year group and above that have the highest percentage of an extremely severe level of anxiety.

These results are in line with several studies that also reported higher anxiety scores among third-year students compared to first and second-year students (Shao et al., 2020). Iqbal et al (2020) also conveyed that the fifth-semester students had higher anxiety scores than second and fourth-semester students (Iqbal et al., 2020). In the learning media variable, the majority of students feel anxious in the very severe category in the group that uses the dominant learning media "WhatsApp". Learning media is a source of anxiety because it is no longer carried out directly but through internet-connected gadget intermediaries. Several lecturers then chose several platforms as the main learning media.

Essentially, Whatsapp is considered an easy-use online learning medium since this application has also become a daily communication medium (Zhafira et al., 2020). This media is most popular because of its effectiveness as a means of connecting in communication with students both individually and in groups per class (Indiani, 2020). Other research explains that some of the obstacles in using WhatsApp as a learning platform include the tendency to copy-paste the chats or tasks and an unstable network with limited time (Pahmi et al., 2021).

In addition to learning media, some other learning challenges worsen students' anxiety disorders in this study. Several reasons such as bad internet connection, difficulty to focus, limited internet quota, and illiterate electronic media usage are the reasons for the emergence of anxiety disorders.

Research conducted in India states that most students use Android phones as a tool to support online learning. Students face various problems related to the anxiety of poor internet connectivity and an unfavorable study environment at home. Students

from remote and marginalized areas especially face great challenges to study during this pandemic. This study suggests targeted interventions to create positive spaces for learning among students from vulnerable sections of society. Strategy is urgently needed to build a robust education system in the state that will ensure to level up the students' skills and productivity (Kapasia et al., 2020).

This shows that the emergence of anxiety in students during the COVID-19 pandemic is caused by very complex reasons. Not only because of the basic characteristics of the respondents, but also the role of the family and the learning process that students go through.

Not all anxiety disorders should be treated when symptoms are mild, transient, and without associated impairments in social and occupational functioning. However, treatment is indicated when the patient shows marked distress or suffers complications from the disorder (eg, secondary depression, suicidal ideation, or alcohol abuse). Anxiety disorders can be treated mostly on an outpatient basis. All patients with anxiety disorders require supportive speech and attention to the emotional problems associated with anxiety disorders (Bandelow et al., 2017).

## CONCLUSION

The level of anxiety among college students in Universitas Islam Negeri Alauddin Makassar during the Covid-19 pandemic was quite high. It was depicted with the high percentage of students who have an extremely severe level of anxiety (32.6%). Gender was the only variable that has a significant correlation to anxiety level compared to other variables.

Indeed, the university plays a crucial role in overcoming the level of anxiety among the students. Thus, it is highly recommended for higher education to provide and develop student counseling centers in order to support the psychological condition of students.

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