

# Mental health management in online learning media during the COVID-19 pandemic for students at private university

## Gestión de la salud mental en medios de aprendizaje en línea durante la pandemia de COVID-19 para estudiantes de universidades privadas

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### SUMMARY

**Introduction:** *The Coronavirus Disease 2019 (COVID-19) pandemic has negatively impacted many sectors of people's lives worldwide, especially in the education sector. The COVID-19 pandemic in the education sector has disrupted students' mental health. This study aimed to determine and identify the impact of online learning during the COVID-19 pandemic on students' physiological and mental health.*

**Methods:** *This study used non-experimental with quantitative methods. It also used a descriptive survey research design. An instrument used in this study was the Self-Reporting Questionnaire (SRQ) with a Guttman scale for students in 2020. The research sample was 378 people using simple random sampling. The data analysis used in this study was univariate.*

**Results:** *Most respondents were 18-25 years (97.9 %). Based on the environmental conditions where students*

*live in the red zone, 56.9 %. The distribution of students who experience mental health problems was 87 % of students experiencing psychotic symptoms, which was 90.2 %.*

**Conclusion:** *During the COVID-19 pandemic, students experienced quite high anxiety. More than half experienced the impact of COVID-19, and the experience of mental health problems is relatively high.*

**Keywords:** *COVID-19, mental health, students.*

### RESUMEN

**Introducción:** *La pandemia de la enfermedad por coronavirus (COVID-19) ha impactado negativamente en muchos sectores de la vida de las personas en todo el mundo, especialmente en el sector de la educación. La pandemia de COVID-19 en el sector de la educación ha trastornado la salud mental de los estudiantes. Este estudio tuvo como objetivo determinar e identificar el impacto del aprendizaje en línea durante la pandemia de COVID-19 en la salud fisiológica y mental de los estudiantes.*

**Métodos:** *Este estudio utilizó métodos no experimentales con métodos cuantitativos. También*

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*se utilizó un diseño de investigación descriptivo de encuesta. Un instrumento utilizado en este estudio fue el Cuestionario de Autoinforme (SRQ) con escala de Guttman para estudiantes del año 2020. La muestra de la investigación fue de 378 personas utilizando un muestreo aleatorio simple. El análisis de datos utilizado en este estudio fue univariado.*

**Resultados:** *La mayoría de los encuestados tenían entre 18 y 25 años (97,9 %). Según las condiciones ambientales donde viven los estudiantes en la zona roja, el 56,9 %. La distribución de los estudiantes que experimentan problemas de salud mental fue del 87 % de los estudiantes que experimentaron síntomas psicóticos, que fue del 90,2 %.*

**Conclusión:** *Durante la pandemia de COVID-19, los estudiantes experimentaron una ansiedad bastante alta. Más de la mitad experimentó el impacto de COVID-19, y la experiencia de problemas de salud mental es relativamente alta.*

**Palabras clave:** *COVID-19, salud mental, estudiantes.*

## INTRODUCTION

The Coronavirus Disease (COVID-19) pandemic is currently having a negative impact on many sectors of people's lives around the world (1-3). The health, food, manufacturing, tourism and education sectors were affected in several fields. This pandemic has a huge impact, making people panic (4-6). These are potentially threatening the mental health of children and adolescents significantly. This is associated with various physical effects, such as decreased motor activity, changes in eating habits, no sunlight exposure, and adverse psychological effects, such as stress, fear, anxiety, and depression. Anxiety, lack of contact with peers, and reduced opportunities for stress management are the main problems that lead to further mental disorders (7-9).

One of the major impacts that the changes in youth society have felt is the education sector, especially the teaching and learning process implementation. Various research surveys have been conducted to measure students' mental health levels worldwide. For example, a survey conducted by a previous study found that students in Bangladesh experienced high levels of anxiety, depressive symptoms, and low mental health status when facing various changes due to the COVID-19 virus in April 2020 (10). Research in China also revealed that due to COVID-19,

as many as 24.9 % of students experienced high anxiety during the learning process (11). However, a study conducted at Mulawarman University in Indonesia examined that 16.5 % of students reported experiencing moderate to severe symptoms of depression, 28.8 % experienced moderate to severe anxiety symptoms, and 8.1 % experienced moderate to critical stress levels (12).

In early April, the Indonesian government established a strict policy through large-scale social restrictions to suppress the spread of COVID-19. Progressive steps were taken to limit the transmission of the virus through restrictions on people's movements. While learning from home is the only solution to keep the learning system running. Learning from home online is called e-learning. It is also conducted by the Televisi Republik Indonesia (TVRI) channel, which simultaneously broadcasts educational topics daily at every level of education (12,13). However, online learning is considered less enjoyable. It has many obstacles in its implementation due to the lack of adequate facilities individually and the low readiness of teachers, students, and parents. The results of the Child Protection Commission (KPAI) survey were students as respondents complained of many obstacles, including narrow task work time that makes students less rested and exhausted. Then, many students do not have adequate facilities such as laptops or mobile phones with proper specifications for online learning, teaching, and learning interactions, such as lost communication in the middle of lesson hours. There are no learning interactions such as questions and answers and explanations of material from the teacher.

The continuous online learning process is expected to decrease students' mental health. Various symptoms of decreased student mental health are known from the number of students who experience high anxiety levels. In addition, most students are also known to feel depressed due to the many assignments given by lecturers, which also causes them to lack time to rest (7,14,15). Furthermore, the COVID-19 pandemic has not yet been resolved. New clusters continue to emerge, which are increasingly causing unrest in the community. Thus, forcing government policies to continue means that the implementation of the teaching and learning process will continue to rely

on learning from the home system. Therefore, it has to be conducted until conditions are considered more stable and safer. For this reason, this study aims to investigate and identify the impact of online learning during the COVID-19 pandemic on the physiological effect and mental health of students at a private university.

## METHODS

This type of research design was non-experimental. This study used a descriptive survey research design. The Self Reporting Questionnaire (SRQ) questionnaire was developed by World Health Organization (WHO) with the Guttman measuring scale. It was distributed to students at a university in Banten Province, Indonesia, from January-May 2020. The inclusion criteria in this study were 4th and 6th-semester students, active status as students. The sample size was 378 people with the purposive random sampling method. The type of data used was primary data. However, the dependent variable in this study was mental health and psychotic symptoms in students. The independent variables were age, gender, semester, class, education status, residence status, health status, and status of the restrictions on the community area. The instrument used was a questionnaire with 29 questions SRQ. Thus, this study did not test the validity and reliability because WHO has developed the SRQ with the Guffman measuring scale. The data analysis used in this research was univariate. The univariate analysis aimed to describe the characteristics of each variable. The distribution of the frequency and percentage of the variables was already applied (16). This research has been approved through an ethical review procedure and has received ethics pass letter from the University of Banten Jaya with letter number 0022-13.96/LP3M-UNBAJA/I/2020.

## RESULTS

The analysis showed that students' characteristics at private universities were seen by age, gender, semester, class, last education, income, living environment, health status, and regional status. Based on age, most of the

respondents aged 18-25 years were 97.9 % and a small portion aged 26-32 years was 2.1 %. Besides that, the male gender was 57.9 %, and the rest was female, 42.1 %. Based on the semester level, most of the respondents were students from semester 4, which was 55.8 %. However, a small proportion were students in semester 6, 44.2 %. The largest batch frequency of respondents being students of the 2019 batch was 56.9 %. Then students from the class of the year 2018 were 42.9 %, and the least was from the class of 2017, which was 0.3 %. The last education of most of the respondents was senior high school, which was 78.6 %. However, bachelor and diploma 4 was 15.9 % and at least had the last education diploma three which was 5.6 %.

Judging from the condition of the family and place of residence, most of the respondents are students from families with an income of less than 1 million, which was 56.9 %, and the least were students from families with an income of more than 1 million, which was 43.1 %. While the environmental conditions where students lived in the red zone were 56.9 %, and the least were respondents who lived in the red zone, which was 43.1 %. Along with some respondents' health status, healthy people's health status was 80.4 %. The respondents with people without symptoms were 10,8 % in health status, people under surveillance 5.6 %, and at least respondents with the patient under supervision were 3.2 %. The conditions of restrictions on community activities status application in the area where the respondent lives were 55.6 %, and a small proportion of respondents who lived in areas that did not have community restriction status was 44.4 % (Table 1).

Based on Table 2, the distribution of mental health problems found that 87 % of students experienced health  $\geq 5$  with anxiety and depression symptoms. Psychotic symptoms experienced by students during the pandemic, it was found that most students experienced  $\geq 1$  psychotic symptom, which was 90,2 %, and a small proportion was normal, which was 9,8 %.

## DISCUSSION

Based on the analysis results, it was found that most students experienced mental health

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Table 1  
Distribution of Student Characteristics

Student Characteristic	n	%
Age		
18-25 years old	370	97.9
26-32 years old	8	2.1
Sex		
Male	219	57.9
Female	159	42.1
Semester		
4 <sup>th</sup>	211	55.8
6 <sup>th</sup>	167	44.2
Years		
2017	1	0.3
2018	162	42.9
2019	215	56.9
Education		
High school/vocational school/Equivalent	297	78.6
Diploma Degree (D3)	21	5.6
Bachelor Degree	60	15.9
Living Environment (Red Zone)		
No	181	56.9
Yes	197	43.1
Health Status		
Patient Under Supervision	12	3.2
People Under Surveillance	21	5.6
People without symptoms	41	10.8
Healthy	304	80.4
Region status of Restrictions on Community Activities		
No	168	44.4
Yes	210	55.6

Table 2  
Distribution of Student Mental Health Problems and Psychotic Symptoms

Variable	n	%
Mental health problems		
≥ 5 (mental health problems/neurotic symptoms)	329	87
< 5 (Normal)	49	13
Psychotic Symptoms		
≥ 1 (Psychotic Symptoms)	341	90.2
< 1 (Normal)	37	9.8
Total	378	100

problems or symptoms of neurosis, which resulted from not being optimal in attending lectures. However, this has resulted in a decrease in student achievement scores. Several factors influence the result, such as environmental conditions or student residences whose internet network connections are difficult to conduct e-learning during the COVID-19 pandemic, and the lack of maximum teacher delivery of material so that understanding of the material is not conveyed optimally by the teacher to students. Therefore, a student in mental health management needs to increase student achievement index scores. In addition, mental health efforts must be integrated, comprehensive, and sustainable by the government, local government, and the community. Data showed that symptoms of depression and anxiety indicate the prevalence of mental-emotional disorders at the age of > 15 years by 6.1 % of the total population of Indonesia, or equivalent to 11 million people (17).

Based on the results, it is explained that most respondents experienced mental health problems/symptoms of neurosis, and only a small proportion of respondents still had normal mental health. There are four signs of anxiety disorders: cognitive signs, emotional signs, physical signs, and behaviour (18). Cognitive signs include an inability to concentrate, memory problems, frequent negative thoughts, and constant worry. While emotional signs include feeling overwhelmed, moody, depressed, and irritable, the characteristics of physical disorders are symptoms of neurosis or mental disorders, namely headaches, constipation, digestive problems, chest pain, and dizziness. Behavioural signs include eating more or less, difficulty sleeping, overdoing activities such as exercising and shopping excessively, and suddenly having new habits that signal nervousness, such as nail biting or pacing, using illegal drugs, and consuming alcohol (19). Symptoms of mental health problems include depression, bipolar disorder, anxiety disorders, post-traumatic stress disorder, obsessive-compulsive disorder, eating disorders, addictions, and personality and schizophrenia disorders (20).

Students with psychotic symptoms have characteristics that cannot judge themselves and their surroundings and cannot judge themselves

and others. This happens a lot at the age of < 30 when the age is still productive. Based on data from a previous study stated that 48 % thought about committing suicide and intended to hurt themselves and others (21). They experience psychological trauma, such as feeling alert, alone, abandoned, and isolated. This happens because the pandemic impacts personal and family life, such as being laid off, income declining, businesses being out of business, and the high divorce rate. This affects students, especially at a private university. Those who usually gather with friends or lecturers for these discussions can no longer be limited online. As we know, in-person and online meetings have different meanings or values. Even during online lectures, lecturers cannot fully supervise or oversee student understanding, and sometimes they have network problems or insufficient quotas, and the information submitted is incomplete. They are given assignments with a certain dateline, which applies to almost all lecturers (22).

Students who do not understand the material and are required to complete assignments according to the dateline will be triggered to experience these psychotic symptoms starting from confusion, anxiety, and stress, then increasing. Not to mention the family problem, whose opinion decreased, which triggered the mental problem. These new students make them more anxious because everything is online at the beginning of entering campus. There are no offline campus orientation activities, so the network looking for classmates or seniors to be discussion partners is reduced. This condition can be prevented by online contact with friends or relatives and strengthening worship (23).

### CONCLUSION

During the COVID-19 pandemic, students experienced quite high anxiety, and more than half experienced the impact of COVID-19. In addition, students who experience psychoticism are quite high. Therefore, it needs to be the concern of the campus for better learning and teaching process by prioritizing the availability of counseling and coaching time to be closer to the students, as well as paying attention to student workloads or assignments, especially students

from regions that are not supported with good infrastructure.

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