# A phenomenological exploration of students' mental health during the COVID-19 pandemic

#### Kezia Hana Situmorang<sup>1</sup>, Enggar Putri Harjanti<sup>2</sup>, Aurellia Nur Amalina<sup>3</sup>, F. A. Nurdiyanto<sup>4\*</sup>

- <sup>1</sup> Faculty of Psychology, Satya Wacana Christian University, Indonesia;
- <sup>2</sup> Faculty of Psychology, Universitas Gadjah Mada, Indonesia;
- <sup>3</sup> Faculty of Psychology, Satya Wacana Christian University, Indonesia;
- 4\* Faculty of Psychology, Universitas Gadjah Mada, Indonesia.

Email: franznur@gmail.com

\*Correspondent Author

KEYWORDS ABSTRACT

COVID-19 pandemic Higher students Mental health Phenomenology

The COVID-19 pandemic had a significant impact on the aspect of students' mental health. Anxiety, feelings of social isolation, depression, difficulty sleeping, and maladaptive behavior are problems that are often reported to students. This study was conducted to explore mental health problems endured by university students during the pandemic. Therefore, this article provides information related to potential mental health issues undergone by students during the pandemic. This study used a qualitative method of Interpretative Phenomenological Analysis (IPA), and 21 students (13 women; aged 18-24 years) participated through the snowball technique. Data were collected through semi-structured interviews online and by telephone. The analysis found various mental health problems endured: pandemic life adaptation problems, loneliness, and stress related to the pandemic. The crisis was encountered along with challenges in adapting to pandemic life, fear of infection, and future uncertainty. We suggest the university facilitate access to mental health students' psychological assistance. Our findings highlighted mental health issues experienced by college students during the pandemic.

This is an open-access article under the  $\ensuremath{\mathsf{CC-BY-SA}}$  license.



#### Introduction

COVID-19 was confirmed as a pandemic in early March 2020, spreading and infecting more than 6 million people throughout Indonesia (World Health Organization, 2023). Given its high transmission and fatality rates, the authority enforced many regulations, such as mobility restrictions, closing public services (offices, schools, universities, worship places), and stay-athome instructions (Susanna, 2020). The restriction forces schools and universities to hold online learning.

Young adults are vulnerable to suffering from mental health, particularly college students. Cao et al. (2020) report that around 24,9% of students endured varied anxiety levels during the COVID-19 pandemic. This condition was correlated to the pandemic impact on

everyday life, family economic instability, academic delays, and infection outspread. It is found that stress significantly affects the increased smartphone usage (screen time) and self-injury behavior of Indonesian adolescents during the pandemic (Wiguna et al., 2021). Students' depression issues also increased during the pandemic; panic related to the outbreak and the risk of COVID-19 infections contributed to increased depression (Wang et al., 2020).

The pandemic has put college students to sustain more complex mental health problems. Anxiety and depression students encounter related to the increased cases and mortality rates due to COVID-19, social interaction difficulties, learning barriers, and a judgment of disrupted future careers by the pandemic (Villani et al., 2021). Learning barriers during the pandemic also encouraged students who endured frustration and exhaustion due to internet network instability, limited internet quota, unprepared infrastructure in providing online learning, and fast-changing academic schedules (Fauziyyah et al., 2021). Unsatisfaction with the education quality was also discovered, along with the increasing academic load, frustration of adapting, and technical barriers to online lectures (Elshami et al., 2021), which was also exacerbated by limited counseling services.

Varied experiences perceived during the pandemic could increase the possibility of mental health issues, such as insomnia, irritability, depression, anxiety disorders, somatization disorder, PTSD, and suicide (Shigemura et al., 2020). Sarfika et al. (2021) discovered that 71,7% of respondents in Indonesia endured depression to different degrees, which was correlated to social media exposure, women, age (adolescent and adulthood), low education level and marriage bond. Indonesian Psychiatrists Association (Kaligis et al., 2020) reported that respondents endured psychological trauma (77%), psychological issues (69%), anxiety (68%), and depression (67%). Meanwhile, a survey conducted in India reported an increase in sadness, anxiety, irritability, frustration, and fear in a third to a half of respondents (Grover et al., 2020). Mental health issues emerge as the manifestation of the pandemic psychological impact, which was correlated to a fear of infection, health protocol burden, and prolonged duration of mobility restriction (Nurdiyanto & Harjanti, 2022). Such manifestations emerge due to limited activities outside the home, COVID-19 disinformation, and economic disruption, resulting in most people losing their job and residents. Social stigma also leads to the fear of exclusion, blaming, and separation from family or community (Kumar & Nayar, 2020).

The COVID-19 pandemic experience among college students has an atmosphere influenced by risk perception, crisis context, and personal capacities. In this case, one's relation within an environment considered threatening or beyond their comprehension may posit a

psychological threat. Using Lazarus & Folkman's (1984) framework model, the pandemic can be considered a threat resulting in stress and mental health issues. College students who undergo stress were found to have unhealthy eating behaviors, be it overeating or undereating (Choi, 2020). Students' distress related to various present and future uncertainties will increase the risks of mental health disorders (Wu et al., 2020). In other words, distress that runs into college students relates to the inability to tolerate and judge pandemic uncertainties as an unacceptable threat.

Regarding our search results, several quantitative types of research have been conducted to describe students' mental health issues in Indonesia during the pandemic (Melizza et al., 2022). However, the study using qualitative approaches related to this topic was rarely found and has yet to provide results that can explore student experiences during the pandemic related to their mental health conditions. Identifying students' mental health problems during the pandemic becomes important to provide information on potential health problems that students endured. This research was conducted to explore college students' mental health problems during the pandemic, and this study was expected to describe students' mental health status during the pandemic. We proposed the research question: how the COVID-19 pandemic affects students' mental health problems?

#### Method

This study applies a phenomenological qualitative approach to explore students' mental health experiences during the pandemic. Phenomenology was employed to comprehend how students interpret various events they faced, particularly in the pandemic context. This inquiry also has insight into identifying students' typical and unique experiences without neglecting the similarities between students. This study involved 21 Indonesian students (13 female, aged 18-24 years) who came from various universities in 10 cities and participated in our previous research (Nurdiyanto & Harjanti, 2022). This study elaborated on participants who addressed their distress and mental health problems in writing. We recruit them using purposive sampling.

Data collection was carried out using semi-structured interviews through teleconference that was conducted February-March 2022. The interview was conducted for 1-2 meetings with a 40-60 minutes duration in each session. During the interview take places, the interviewer and participants dialogue using Indonesian. The interview guide was arranged by focusing on participants' psychological experience during the pandemic, for instance, "How did this

pandemic affect your mental health?", "Can you tell us your emotion in this pandemic? What kinds of feelings have you felt?". Informed consent was written to participants by providing information such as research objective, rights, what is expected from the participants, the potential to withdraw from this research, and the potential risk emerging from data collection. We also collected participant information such as age, ethnicity, sex, religion, education, and university institutions.

This research has obtained approval from the Research Ethics Committee of Universitas Gadjah Mada (approval date: 10 November 2021; Number KE/UGM/013/EC/2021). This research analyses forms of mental health problems and strategies to deal with them. This research employs Interpretative Phenomenological Analysis (Smith et al., 2009) to identify mental health issues, experiences and interpretations during the pandemic. The first and third authors and four research assistants completed the interview transcript. The analysis was started by the first and third authors reviewing, checking the transcript accuracy, and repeatedly reading to establish data familiarization. The first and third authors performed explanatory comments based on the unit meaning of the transcript and emergent themes based on those comments. The second and fourth authors checked the explanatory comments regarding the accuracy and emergent themes. The subordinate themes were built by categorizing emergent themes conforming to the relatedness and nuance. The third and fourth authors checked and provided improvement suggestions to refine the themes. Every categorized theme was re-checked in a panel to refine the theme's label and definition.

# **Result and Discussion**

Our analysis synthesizes that self-adjustment challenges, health threats, and future uncertainties are relevant issues affecting students' mental health during the COVID-19 pandemic. The pandemic has resulted in numerous changes in students' lives, making them encounter many barriers, disorders, and depressing threats. This state of oneself contributed to students' mental health issues during the pandemic. The phenomenological analysis synthesizes those identified themes as mental health problems: Pandemic adjustment problems, loneliness, and stress.

# Pandemic adjustment problems

Ever-increasing COVID-19 infection encourages the government to issue many different policies that are considered capable of minimizing the public's risk of being infected by the virus. It turns out the infected policies aspects of life, including education,

health, and society, for instance, health protocol that must be applied every time they travel, and transformation of learning system from face-to-face to online. Those policies affect changes in participants' routine activities, such as limited meetings with friends, lectures, or other social activities.

**Table 1.** University students' psychological burden themes during the COVID-19 pandemic

Theme	Sub-themes
Pandemic adjustment problems	Health protocol
	Online learning
	Career disruption
Loneliness	Social interaction restrictions
Stress due to pandemic lives	Fear of infection
	Financial burden
	Burn out

## Health protocol

Before the pandemic, health protocol regulations did not limit activities and interactions with other people. COVID-19 infections transmitted through direct contact encourage the implementation of health protocols. This regulation was enforced to decrease infection risk and was also applied primarily for social interaction. Since the pandemic, using face masks, washing hands, and keeping a distance have become rules one should follow. Students were also having difficulties when they wanted to pray and exercise in public areas because they must use face masks, had already been vaccinated, and had costly health examinations for a student budget. The PeduliLindungi application usage is one of the efforts to limit people's activities when traveling and enforce health protocols in Indonesia.

Nevertheless, not all people can easily operate this application. One of them is Sabila. Sabila reveals having difficulty using the PeduliLindungi application when going to public areas due to regulations. She cannot freely travel to many other places because she has to use the application and other protocols.

"Before the pandemic, we could freely go out of town; we did not need to wear face masks and bring hand sanitizer. However, now, we have to be vaccinated even we go out of town, and it is more complicated when we go to Mall. We ought to use PeduliLindungi, which the apps always get an error. So, yeah, it is more complicated. You know, we are stressed by this situation and cannot go anywhere freely as we used to." (Sabila, Psychology student, 21 years old)

Glorania, one of the female students who returned home since the pandemic, also expressed self-adjustment difficulty to wearing a mask during dance practice.

"Like when we had dance practice, we are required to wear a face mask. That is tiresome for me." (Glorania, Psychology student, 21 years old)

## Online learning barrier

One government effort to decrease community interaction during the pandemic is by altering the face-to-face learning system into online learning so that direct interaction between students and lecturers would not occur. During face-to-face learning, lecturer and student interaction are more intense, and the learning material taught by the lecturer is way easier to understand because it was taught directly. However, during online learning, the lecturer's teaching method is more difficult to understand, with minimum interaction with the lecturer, assigning more tasks, assignments with a tight deadline, and learning media requires an internet network. Typically, the online learning process utilizes applications and platforms that require sufficient internet connection. Nonetheless, some students need help to follow online learning maximally when there are problems with the internet network. Dion encounters this problem when he is considered absent in the learning process due to a bad internet network.

"In my village, we got a lousy internet connection, it was so maddening. We were present at the class, but the lecturer took me as absence because my camera was off or had an audio error." (Dion, Informatics Engineering Student 18 years old)

During offline learning, students and lecturers could ask questions directly more easily. However, many distractions around students' environment and question-and-answer systems are also done in writing during online learning. In this particular context, students often needed help formulating questions in writing. Interaction with the lecturer is also considered minimum and more passive than face-to-face learning. Furthermore, students feel the course practicum could be more optimal because it is limited during online learning. Moreover, there are lecturers whose material is challenging to understand when taught through online learning. In this circumstance, students express their difficulties grasping the learning material.

"Amid this pandemic, I feel rather afraid. I do not well understand several courses. I feel lacking inside myself, not feeling full. Worry, doubt, fear. You know, what am I studying here for? What have I got so far?" (Anita, Environment Engineering student, 20 years old)

Furthermore, the changing systematics of collecting assignments is perceived to be very burdensome for students. The learning platform employed during online learning makes it easier for lecturers to inform changes to deadlines. Sometimes, this makes the lecturers expedite the deadline for collecting assignments from the initially set deadline. Students also felt the assignments given were much more compared to offline learning. This increment makes students feel depressed because they must work the extra mile to complete the course assignments. Working on group assignments before the pandemic carried out by having direct discussions had to be done online, making it difficult for the discussion process. Students also found it hard with the presentation assignment's systematic changes into video presentation because they have to edit the video.

"I feel stress; I feel it at the beginning of the pandemic. Everything was online, but the assignments were mounting. Goodness me, I barely stand it. We are accustomed to offline lectures but online is so mixed up. We cannot go anywhere. Even my body feels weird to get sleep, and I cannot sleep well. Everything I do feels uncomfortable." (Dimara, Psychology Student, 22 years old)

## Career plan changes

The pandemic encourages students to make career plan changes along with the threat posed by COVID-19 transmission. At the same time, efforts to deal with COVID-19 with social restrictions negatively affect business productivity. This situation forces the business to make workforce reduction through layoffs. A family member who gets discharged affects the family's financial stability, analogous to reduced income. Economic problems in the family encouraged changes in student career plans. In addition, career plan changes were related to the high risk of being infected if working in the medical sector. Many medical workers got sick to fatality due to COVID-19 infection while working. As a result, to avoid such risk, participants who wanted to choose to study in the medical department had to change their college major. This turn was experienced by Anita, who, since senior high school, intended to become a dental nurse and planned to enroll in a dental nursery major. She thinks the occupation has better work prospects because she can open her practice clinic, and the patient will always keep coming.

Nevertheless, her mother disapproved because COVID-19 infections make her mother worries about the high risk that Anita might be exposed to the virus. As a result, she is not allowed to work in that discipline. Anita expresses this matter,

"I feel so much disappointed. Due to this pandemic, I failed to register in dental nursery admissions. My mum did not allow it because the pandemic restricts interaction with many people." (Anita, Environment Engineering student, 20 years age)

Even though Anita can now adjust to her current department, she did not deny her disappointment when she had to choose another college major that did not suit her wishes.

### Loneliness

Social restrictions implemented during the pandemic restrict direct interaction that reduces the intensity of student meetings with the people around them. Before the pandemic, students hung around with their friends at college and in the organization. Nevertheless, since the pandemic, particularly after the social restriction was enforced, organizational activities students participated in were only carried out at home or in their boarding rooms without any direct meetings. In group assignments, students do it without meeting in person, so communication with friends becomes limited. Even though they can still communicate with each other through social media, students still feel that their communication with their friends is becoming less frequent than before the pandemic. Along with reduced communication, students think their relationship with friends is distant. This distance relationship makes students feel lonely, as expressed by Betha.

"Sometimes, I do not have any friends because I cannot meet them. It is like do not hang out at all because other friends of mine just fine gather around during the pandemic. While my time is wasted only in the house or boarding room." (Betha, Education student, 20 years old)

Tino also expresses the same problems: restricted meeting with his friends during the pandemic makes him lonely. Before the pandemic, Tino enjoyed spending time with friends; hence, the social restriction policy diminishes the intensity of meetings with his friends.

"Indeed, I feel so sad. Moreover, I am a person who often hangs out with friends. It is sad because the pandemic restricts me from meeting them." (Tino, Biology Education Student, 20 years old)

Limited direct interaction with friends during the pandemic also restricts participants from telling or obtaining support from their friends for their problems. Eventually, this situation makes it difficult for participants to control their negative thoughts, as expressed by Diamonica,

"Being alone during the pandemic, it is hard to tell someone. I was ruminating more than before, and negative thoughts also. For example, I feel worthless to myself, 'what am I lacking?' What am I lacking?' those feelings. This pandemic has left us disconnected and prone to negative emotions. I feel anxious more often." (Diamonica, Psychology student, 24 years old)

While at home, reduced communication and interaction with parents were also related to the loneliness participants perceived. Diana also addresses this issue,

"Back at home, we live three of us with my stepmom. We just stay at home. Because I only stayed at home, they did not give me money or allowance. I feel alone, and sometimes, and sometimes lonely, like I did not exist at all." (Diana, Agribusiness Student, 21 years old)

Since the pandemic emerged, Diana, who previously lived in a boarding house, chose to live with her parents at home. Even though she lived with her parents, she often spent time alone, and interaction with her parents was also lacking because the parents had to work outside the house. It made her feel like she was not being cared for by her parents.

### Stress-related to the pandemic

Stress became the most common psychological problem endured by the participants. The participants described this state of oneself as feeling depressed, tired, worried, afraid, anxious, grumpy, to insomnia. Several sub-themes are found to be related to stress sustained by the participants, e.g., fear of infection, economic problems, and burnout.

#### Fear of infection

Along with the spread of COVID-19, the fear of being exposed to the virus increases. This fear emerges because seeing and hearing the news of infected people could sustain severe health interference to death. Students were worried about being infected because of seeing people around them were also exposed to COVID-19. When people around them show infection symptoms, such as coughing or sneezing, students immediately get scared because they think the person is infected. Students also worry that if their immune system weakens, it will make them vulnerable to infection. The horrible impact of a virus infection on health is what participants are afraid of if they are infected, as stated by Jelita,

"In general, what scares me the most is being exposed to the virus during the pandemic. Nevertheless, I obey the health protocol. If suddenly my stamina is weak, then I might be exposed." (Jelita, Accounting Students, 19 years old)

Jelita, who continued to carry out activities outside the home during the pandemic, admitted that even though she had adhered to health protocols, she was still worried of infected with the virus. She knew there were other potentials, such as a weak immune system, which could increase the risk of virus infection. She was afraid that exposure to the virus would make her sick and cause her death. Tomo also revealed this concern,

"I also actually feel worried. Every morning parents went to work, coming home at night. They interact with different kinds of people; they could be exposed." (Tomo, Psychology Students, 21 years old)

Tomo's anxiety arises because his parents are at high risk of being exposed to the virus while working. He expressed concern that his parents were more vulnerable and weaker when exposed to the virus than he was at a young age.

Anxieties related to the virus were also found in this research. The stigma here is people's rejection or attitude that does not accept participants returning home because they were afraid their homecoming would bring the virus to their hometown instead. It may also be related to the participants' status who is studying at a university in Java, where the island is one of the areas with high rates of COVID-19 infection. This stigma is expressed by Dimara as follows:

"People were paranoid about this Covid. Neighbors also paranoid. If I recklessly go home, it would make a scene. I think it would. You know, that is who they are." (Dimara, Psychology Student, 22 years old)

#### Economic problems

The applied social restriction affects the reduction of the community's consuming abilities. Indeed, this decrement disadvantages the business sector because their products are not selling well. Participants who have a family business have to deal with financial problems due to diminishing sales. Some family businesses have to close down because they cannot stay afloat. Employee reduction becomes one of the solutions companies implement to decrease business losses during the pandemic. There is a student's parent who had to lose his job during the pandemic. This situation becomes problematic because family income diminishes while expense keeps rising. As a result, it makes the family financially become unstable. This instability makes students feel anxious about making ends meet and hampering the college completion process due to difficulties paying tuition fees. As disclosed by Jelita,

"If my financial circumstance worsens, I do not know what will happen next. While my study is at a private university, the tuition fee needs more than the state. I feel worried and anxious about the decline in family finances." (Jelita, Accounting Student, 19 years old).

## Burnout

Mobility restriction is applied to decrease virus transmission effect on limited activities that students usually do outside their house. Before the pandemic, students could go freely outside the house, but participants were forced to do more activities at home during the pandemic. Lots of spare time spent at home with the same and repeated activities makes students feel bored. Burnout conditions on unvaried routine activities describe this state of oneself.

"I also feel bored because mostly my activities are only at home. Only in one place." (Betha, Education Student, 20 years old).

Betha disclosed that she mostly spent time outside the house before the pandemic because she is involved in several organizations' activities. However, her organizational activities became limited during the pandemic, so her routine changed. She lost the opportunity to find a new environment and experience.

Students also expressed their lack of interest in activities outside the home because they were accustomed to situations when staying home. While at home, students become more relaxed because their activities are only studying, doing assignments, playing with smartphones, and sleeping. One of the activities was experienced by Komaldi, who felt less interested in activities he often did before the pandemic, such as traveling, playing volleyball, and hanging out with friends, along with the length of time he spent at home during social restrictions.

"No passion at all, just flat. Before the pandemic, I do active, lots of traveling. Suddenly, the pandemic struck, it was all changed, no passion in me." (Komaldi, Civil Engineering student, 19 years old).

# **Discussion**

This research explores how the COVID-19 pandemic influences students' mental health. This study identifies qualitative themes on diverse mental health issues endured by students, such as adjustment problems, loneliness, and stress related to life during a pandemic. The phenomenology analysis synthesizes that the pandemic related to disruption occurred in social relationships, education, and student's career. This disruption rose along with the efforts to deal with the pandemic, which became a challenge in adjusting to different pandemics and routines. This challenge is related to the threat to health threat, barriers, and stress endured during the online learning process and social restrictions. Students feel safer from virus exposure when they spend time at home or boarding house. On the other hand, students feel uncomfortable in monotonous and limited activities during the stay-at-home instruction period. This situation is also related to the uncertainties about the future perceived by students.

The widespread COVID-19 infection poses a threat to student health and finances. Farris et al. (2021) explained several factors contributing to fears of infection, including the risk of exposure while interacting with others, close to an outbreak area, and other people's non-compliance in using health protocols. The unstable financial situation in the family becomes a

threat to students. This threat is related to the risk of being unable to pay for education or daily ends meet. Islam et al. (2020) found that students' anxiety during the pandemic rises primarily because of family financial instability. Low family income during a pandemic is related to the severity of mental health problems encountered.

This study emphasizes that academic problems are relevant to students' adjustment and stress issues. The perceived online learning implementation could be more optimal, along with various obstacles during the online learning process. The poor internet connection for students from uncovered areas has caused them to experience problems in online learning. Fawaz & Samaha (2021) explained that online learning experiences bring pressure and academic demands that must be met. The academic load has become one of the stressors for students during the pandemic, aside from separating from friends and the infection threat (Yang et al., 2021).

The decreased enthusiasm for learning related to the student's frustration regarding their inability to understand the learning material encourages them not to pay attention to the lecturer's explanation (Basri et al., 2022). The obstacles to participating in online learning due to poor internet networks and difficulties in learning on their own can make students not optimal (Hoque et al., 2021). The increased level of loneliness endured by young adults is related to reduced social interaction during mobility restrictions (Wickens et al., 2021). Students in this study revealed that the loneliness they perceived was caused by rarely meeting face-to-face with their friends during social restrictions. Social restrictions limit individuals from getting support and help from others (Nurdiyanto & Harjanti, 2022). A similar result is also found in Muyor-Rodríguez et al. (2021) research that the lack of direct interaction between students and their friends makes them feel lonely. Reduced social contact due to social restrictions, isolation, and quarantine can also increase saturation (Boateng et al., 2021). Monotonous activities, inability to enjoy life, and losing the meaning of life while at home make them saturated (Türkles et al., 2021).

The pandemic situation presents varied disruptions in students' life. This transformation becomes a challenge for students to make self-adjustment to their social life, education, and ever-changing career. These challenges are related to online learning barriers and social restrictions. Existing challenges become a threat to students for their future when they endanger their health and finances of students.

Several limitations need to be addressed related to this study. We did not probe information regarding the participant's history of mental health problems before the

pandemic, so there is a possibility that the mental health issues reported in this study are not entirely related to the pandemic. Later on, this research was conducted when the pandemic situation was more under control and showed a more relieving cases trend so that it is possible for participants' mental health problems are not as severe as at the beginning of the pandemic.

The implication of this research can describe mental health issues endured by students during the pandemic. We emphasize the importance of future research to evaluate students' mental health issues that might be endured by participants and preventive management in the context of higher education. This information can contribute to encouraging students' psychological well-being. It is advised to consider the involvement of other university communities to get a holistic picture of students' mental health problems. Varsities need to provide mental health services accessible to students and adjust changes in the online learning system by considering students' characteristics and requirements.

### **Conclusion**

Our study is expected to contribute to discussing students' mental health experiences during the pandemic. The COVID-19 pandemic affects students' mental health through challenges that arise along with disruption in social relationships, education, and student's career during the pandemic. This article emphasizes the challenge of self-adjustment, health threats, and future uncertainties encountered during the pandemic. These challenges threaten students in their present and future life resulting in mental health issues. In this study, we discover issues endured by students, such as adjustment, loneliness, and stress related to pandemic life.

### References

- Basri, S., Hawaldar, T. I., Nayak, R., & Rahiman, H. U. (2022). Do academic stress, burnout and problematic internet use affect perceived learning? Evidence from India during the COVID-19 Pandemic. *Sustainability*, *14*. https://doi.org/10.3390/su14031409
- Boateng, G. O., Doku, D. T., Enyan, N. I. E., Owusu, S. A., Aboh, I. K., Kodom, R. v., Ekumah, B., Quansah, R., Boamah, S. A., Obiri-Yeboah, D., Nsabimana, E., Jansen, S., & Armah, F. A. (2021). Prevalence and changes in boredom, anxiety, and well-being among Ghanaians during the Covid-19 pandemic: a population-based study. *BMC Public Health*, *21*. https://doi.org/10.1186/s12889-021-10998-0
- Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J., & Zheng, J. (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Research*, 287. https://doi.org/10.1016/j.psychres.2020.112934
- Choi, J. (2020). Impact of stress levels on eating behaviors among college students. *Nutrients*, *12*(5). https://doi.org/10.3390/nu12051241
- Elshami, W., Taha, M. H., Abuzaid, M., Saravanan, C., Kawas, S. A., & Abdalla, M. E. (2021). Satisfaction with online learning in the new normal: perspective of students and faculty at medical and health

- sciences colleges. *Medical Education Online*, *26*(1). https://doi.org/10.1080/10872981.2021.1920090
- Farris, S. G., Kibbey, M. M., Fedorenko, E. J., & Dibello, A. M. (2021). A qualitative study of COVID-19 distress in university students. *Emerging Adulthood*, 9(5), 462–478. https://doi.org/10.1177/21676968211025128
- Fauziyyah, R., Awinda, R. C., & Besral. (2021). Dampak pembelajaran jarak jauh terhadap tingkat stres dan kecemasan mahasiswa selama pandemi COVID-19. *Jurnal BIKFOKES: Biostatistik, Kependudukan, Dan Informatikan Kesehatan, 1*(2), 113–123. https://journal.fkm.ui.ac.id/bikfokes/article/view/4656
- Fawaz, M., & Samaha, A. (2021). E-learning: Depression, anxiety, and stress symptomatology among Lebanese university students during COVID-19 quarantine. *Nursing Forum*, *56*, 52–27. https://doi.org/10.1111/nuf.12521
- Grover, S., Sahoo, S., Mehra, A., Avasthi, A., Tripathi, A., Subramanyan, A., Pattojoshi, A., Rao, G., Saha, G., Mishra, K., Chakraborty, K., Rao, N., Vaishnav, M., Singh, O., Dalal, P., Chadda, R., Gupta, R., Gautam, S., Sarkar, S., ... Reddy, Y. C. J. (2020). Psychological impact of COVID-19 lockdown: An online survey from India. *Indian Journal of Psychiatry*, 62(4), 354–362. https://doi.org/10.4103/psychiatry.IndianJPsychiatry\_427\_20
- Hoque, M. N., Hannan, A., Imran, S., Alam, M. A., Matubber, B., & Saha, S. M. (2021). Anxiety and its determinants among undergraduate students during e-learning in Bangladesh amid Covid-19. *Journal of Affective Disorders Reports*, 6. https://doi.org/10.1016/j.jadr.2021.100241
- Islam, A., Barna, S. D., Raihan, H., Khan, N. A., & Hossain, T. H. (2020). Depression and anxiety among university students during the COVID-19 pandemic in Bangladesh: A web-based cross-sectional survey. *PLoS ONE*, *15*(8). https://doi.org/10.1371/journal.pone.0238162
- Kaligis, F., Indraswari, M. T., & Ismail, R. I. (2020). Stress during COVID-19 pandemic: Mental health condition in Indonesia. *Medical Journal of Indonesia*, 29(4), 436–441. https://doi.org/10.13181/mji.bc.204640
- Kumar, A., & Nayar, K. R. (2020). COVID 19 and its mental health consequences. *Journal of Mental Health,* 30(1), 1–2. https://doi.org/10.1080/09638237.2020.1757052
- Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal, and coping. Springer.
- Melizza, N., Aziz, M. T. F., Prasetyo, Y. B., Arfianto, M. A., Fikri, Z., & Prastiyo, M. D. (2022). Analisis faktor yang mempengaruhi gangguan kesehatan mental mahasiswa keperawatan dalam pembelajaran daring selama pandemi Covid-19. *Jurnal Ilmiah Keperawatan*, 8(2), 384–396.
- Muyor-Rodríguez, J., Caravaca-Sánchez, F., & Fernández-Prados, J. S. (2021). COVID-19 fear, resilience, social support, anxiety, and suicide among college students in Spain. *International Journal of Environmental Research and Public Health*, 18. https://doi.org/10.3390/ijerph18158156
- Nurdiyanto, F., & Harjanti, E. P. (2022). The hidden impacts: Identifying psychological burdens during the Covid-19 pandemic. *Indigenous: Jurnal Ilmiah Psikologi*, 7(2), 130–144.
- Sarfika, R., Malini, H., Putri, D. E., Buanasari, A., Abdullah, K. L., & Freska, W. (2021). Factors influencing depression among Indonesians during the COVID-19 outbreak. *Nurse Media Journal of Nursing*, 11(3), 380–388. https://doi.org/10.14710/nmjn.v11i3.36783
- Shigemura, J., Ursano, R. J., Morganstein, J. C., Kurosawa, M., & Benedek, D. M. (2020). Public responses to the novel 2019 coronavirus (2019-nCoV) in Japan: Mental health consequences and target populations. *Psychiatry and Clinical Neurosciences*, 74(4), 277–283. https://doi.org/10.1111/pcn.12988
- Susanna, D. (2020). When will the COVID-19 pandemic in Indonesia end? *Kesmas: National Public Health Journal*, 15(4), 160–162. https://doi.org/10.21109/KESMAS.V15I4.4361
- Türkles, S., Bogahan, M., Hilal, A., Yaman, Z., & Yılmaz, M. (2021). Diaries of nursing students during the Covid-19 pandemic: A qualitative descriptive study. *International Journal of Environmental Research and Public Health*, 18. https://doi.org/10.3390/ijerph18168556
- Villani, L., Pastorino, R., Molinari, E., Anelli, F., Ricciardi, W., Graffigna, G., & Boccia, S. (2021). Impact of the COVID-19 pandemic on psychological well-being of students in an Italian university: a webbased cross-sectional survey. *Globalization and Health*, *17*(1), 1–14. https://doi.org/10.1186/s12992-021-00680-w

- Wang, W., Tang, J., & Wei, F. (2020). Updated understanding of the outbreak of 2019 novel coronavirus (2019-nCoV) in Wuhan, China. *Journal of Medical Virology*, 92(4), 441–447. https://doi.org/10.1002/JMV.25689
- Wickens, C. M., McDonald, A. J., Elton-Marshall, T., Wells, S., Nigatu, Y. T., Jankowicz, D., & Hamilton, H. A. (2021). Loneliness in the COVID-19 pandemic: Associations with age, gender and their interaction. *Journal of Psychiatric Research*, 136, 103–108. https://doi.org/10.1016/j.jpsychires.2021.01.047
- Wiguna, T., Minayati, K., Kaligis, F., Ismail, R. I., Wijaya, E., Murtani, B. J., & Pradana, K. (2021). The effect of cyberbullying, abuse, and screen time on non-suicidal self-injury among adolescents during the pandemic: A perspective from the mediating role of stress. *Frontiers in Psychiatry*, 12. https://doi.org/10.3389/fpsyt.2021.743329
- World Health Organization. (2023, February 22). *Indonesia: WHO coronavirus disease (COVID-19) dashboard with vaccination data*. https://covid19.who.int/region/searo/country/id
- Wu, D., Yu, L., Yang, T., Cottrell, R., Peng, S., Guo, W., & Jiang, S. (2020). The impacts of uncertainty stress on mental disorders of Chinese college students: Evidence from a nationwide study. *Frontiers in Psychology*, *11*. https://doi.org/10.3389/fpsyg.2020.00243
- Yang, C., Chen, A., & Chen, Y. (2021). College students' stress and health in the COVID-19 pandemic: The role of academic workload, separation from school, and fears of contagion. *PLOS ONE*, *16*(2). https://doi.org/10.1371/journal.pone.0246676