

Analysis of Depression, Anxiety and Stress (DAS) of University Students during the Covid-19 Pandemic

Nengsih Nengsih^{*)1}, Sari Wardani Simarmata²

¹ Department of Islamic Guidance and Counseling, Institut Agama Islam Negeri (IAIN) Langsa, Aceh, Indonesia

² Department of Guidance and Counseling, Sekolah Tinggi Keguruan dan Ilmu Pendidikan (STKIP) Budidaya, Binjai, Indonesia

^{*)} Corresponding author, ✉e-mail: nengsih@iainlangsa.ac.id

Received: 07 October 2022	Accepted: 26 December 2022	Published: 31 December 2022
------------------------------	-------------------------------	--------------------------------

Abstract

The Covid-19 pandemic is a global disaster. Every sector is affected, including the education sector. The pandemic caused students to accept distance learning (online). Distinct from the offline method, the online system requires gadgets and the internet. Online learning causes difficulties for students, such as outdated smartphones, unstable networks, shifting learning methods, more course work compares to offline learning and spending more phone credits, which impact students' psychological conditions and put pressure on students. Pressure is an indicator of someone experiencing Depression, Anxiety and Stress (DAS). This study aims to determine the DAS level in college students during the Covid-19 Pandemic. The instrument used is in the form of a Likert scale, namely DASS-42. Based on the research results, students in the cities of Binjai and Medan are in the moderate category, which means that they experienced DAS during the online learning process. Based on the results obtained from this study, expectantly that there will be a role for tertiary institutions to suppress DAS in students by facilitating official counseling services to prevent DAS in students.

Keywords: Depression, Anxiety, Stress, Students, Covid-19 Pandemic

Abstrak

Pandemi Covid-19 merupakan bencana global. Berbagai sektor mengalami perubahan tak terkecuali pada bidang pendidikan. Masa pandemi menuntut mahasiswa untuk menerima pembelajaran jarak jauh (daring) membuat kondisi pembelajaran berbeda dari sebelumnya yang tadinya luring menjadi daring yang membutuhkan penggunaan gadget dan internet. Pembelajaran daring memberikan kesulitan pada mahasiswa dalam memfasilitasi proses pembelajaran daring seperti Smartphone yang tidak mendukung atau jaringan internet yang tidak stabil, metode belajar berubah, tugas perkuliahan 2 kali lipat lebih banyak dibandingkan pembelajaran Luring, pengeluaran lebih banyak untuk kuota internet sehingga berdampak pada kondisi psikologi dan menimbulkan tekanan pada mahasiswa. Tekanan menjadi indikator seseorang mengalami DAS (Depression, Anxiety and Stress). Penelitian ini bertujuan mengetahui DAS pada mahasiswa pada masa Pandemi Covid-19. Instrumen yang digunakan dalam bentuk skala Likert yakni DASS-42. Berdasarkan hasil penelitian yang didapat, tingkat DAS pada mahasiswa di Kota Binjai dan Medan berada kategori sedang yang artinya mahasiswa yang ada di Kota Medan dan Binjai mengalami DAS selama proses pembelajaran daring. Diharapkan berdasarkan hasil yang diperoleh dari penelitian ini adanya peran Perguruan Tinggi untuk menekan DAS pada mahasiswa dengan memfasilitasi lembaga konseling yang resmi sebagai bentuk pencegahan DAS pada mahasiswa

Kata Kunci: Depresi, Kecemasan, Stres, Mahasiswa, Pandemi Covid-19



This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. ©2022 by author.

INTRODUCTION

Corona virus disease (Covid-19) is an infectious disease caused by a virus that is transmitted through droplets when an infected person coughs, sneezes and exhales. Data shows that the number of Covid-19 cases in Indonesia as of October 20, 2020, has confirmed 369 thousand cases, while overall, 40.4 million cases have been confirmed worldwide ([Task Force for Handling Covid-19, 2020](#)). The increase in Covid-19 cases is a concern for all parties to implement a social restriction policy by carrying out activities at home (WFH) as much as possible, especially educational institutions that establish an online learning process as an effort to prevent the development and spread of Covid-19.

The impact of the Covid-19 pandemic was enormous for the world of education, prompting the Ministry of Education and Culture to issue an emergency curriculum on the Decree of the Minister of Education and Culture No. 719/P/2020 that the use of an emergency curriculum is an option for schools and tertiary institutions to carry out relaxation and learning adaptation aims to facilitate the learning process during the pandemic accordingly to student needs.

However, problems arise due to the changing learning system, which creates problems for students, such as the implementation of the distance or online system and the limited face-to-face learning system with working time reductions and changing schedules. Furthermore, the online system also causes boredom and burnout in students.

Online learning requires Computers, laptops and smartphones that are connected to an internet network to facilitate interaction in learning. Online learning has psychological impacts,

including lack of social interaction, boredom at home, many assignments, changes in daily routine and fear of Covid-19 infection ([Argo et al., 2021](#); [Zhang et al., 2020](#)).

Students could experience DAS (Depression, Anxiety, Stress) during the pandemic. It is possible because the learning system has changed, and they are also required to understand technology in learning, such as Zoom, Classmate, and Google Classroom. They must have specific devices, and students must study independently with assignments from each subject field ([Andiarna & Kusumawati, 2020](#)). Lecturers tend to give more assignments during online learning system ([Watnaya et al., 2020](#)). This resulted in pressure on students during the Covid-19 pandemic. Furthermore, online learning causes psychological problems related to depression, anxiety disorders and stress ([Budiastuti, 2021](#); [Hakim & Falasifah, n.d.](#))

Depression is an emotional condition usually characterized by extreme sadness, worthlessness, guilt, withdrawal, sleeplessness, loss of appetite and interest in daily activities. ([Davison & Neale, 2004](#)). Additionally, Salma et al ([2020](#)) stated that depression is associated with dialysis shift, psychological and social factors which include feelings of hopelessness, perceptions of loss and lack of control, job loss, and altered family and social relationships

Furthermore, Singer defines anxiety as a reaction from fear of or in a situation, and anxiety shows a tendency to perceive a situation as a threat or stressful situation. Anxiety is a result of stress that can affect behavior ([Kumbara et al., 2019](#)). Anxiety is a negative emotional state marked by foreboding and somatic signs of tension, such as a racing heart, sweating, and, often,

difficulty breathing (anxiety comes from the Latin word anxious, which means constriction or strangulation). Anxiety is similar to fear but with a less specific focus. Whereas fear is usually a response to some immediate threat, anxiety is characterized by apprehension about unpredictable dangers in the future (Schwartz, 2020).

Stress is a form of interaction between the individual and the environment that can threaten the well-being of the individual a condition, mentally and physically (Salam, 2015). Individuals who experience stress are characterized by the emergence of several symptoms, namely physical, emotional, intellectual, and interpersonal. Physical symptoms include fatigue, insomnia, diarrhea, and muscle tension. Emotional symptoms such as insecurity, restlessness, and irritability. Intellectual symptoms such as concentration loss and decision-making decisions difficulty. The last is interpersonal symptoms such as loss of trust and empathy (Thompson, 2009).

Based on the expert opinion above regarding the characteristics and character of a person experiencing depression, anxiety and stress. Where students also experience these characteristics. Such as fatigue and lack of response during online learning. Several students complained that the internet was difficult to reach, so they had to go to areas with internet access (1-2 hours from home). When given a task, they immediately complain about the many assignments. Constraints in the online learning process cause psychological pressure faced by students.

Based on the phenomena, the researchers were interested in examining DAS levels among students in Binjai and Medan. The purpose of this study was to determine the level of depression, anxiety, and stress of students during the Covid-19 pandemic or abbreviated as DAS.

METHODS

Current research is a quantitative descriptive study that aims to statistically describe the condition of DAS (Depression, Anxiety and Stress) in university students. The sample in this study was 181 university students in Binjai and Medan city, selected using snowball sampling. The instrument used is the DASS-42, a Likert scale consist of 42 items designed to measure 3 negative emotional states: depression, anxiety, and stress. DASS depression focuses on motivation, self-esteem and low mood; DASS anxiety focuses on physiological symptoms, panic and perceived fear; DASS stress focuses on tension and irritability (Parkitny & McAuley, 2010). The research was conducted in December 2020 through a structured online survey using Google Forms. The instrument is a valid and reliable test, with a Cronbach Alpha of 0.91. Then the collected data were analyzed by calculating the average score of each DAS sub-variable.

RESULTS

The descriptive statistics based on 181 students' data in Binjai and Medan city can be seen in Table 1.

Table 1. Descriptive Statistics of Depression, Anxiety and Stress

Sub-Variable	N	Min	Max	Mean	Std. Deviation	Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
Depression	181	14	62	37.9	8.3	.131	.359
Anxiety	181	19	52	38.7	6.3	.210	.359

Stress	181	17	60	39.7	6.8	.752	.359
Valid N (listwise)	181						

Based on Table 1 above, it can be seen that each sub-variable value, the depression sub-variable, obtained a mean value of 37.9 with a normal data distribution ($0.131 > 0.05$), and the anxiety sub-variable and a mean value of 38.7 with a normal distribution the data is normal ($0.21 > 0.05$), and the stress sub-

variable obtains a mean value of 39.7 with normal data distribution. Based on the mean data above, the conditions of depression, anxiety and student stress are in the moderate category. To see the level of depression, anxiety and stress sub-variables can be seen in Table 2.

Table 2. Category Level of Depression, Anxiety, and Stress Sub-variables

Score Interval	Category	Depression Frequency	%	Anxiety Frequency	%	Stress Frequency	%
< 25	Normal	13	7,2	10	5,5	4	2,2
26 – 36	Mild	75	41,4	78	43,1	71	39,2
37 – 47	Moderate	72	39,8	85	47	92	50,8
48 – 58	Severe	19	10,5	8	4,4	13	7,2
> 59	Very Severe	2	1,1	0	0	1	0,6
	Total	181	100	181	100	181	100

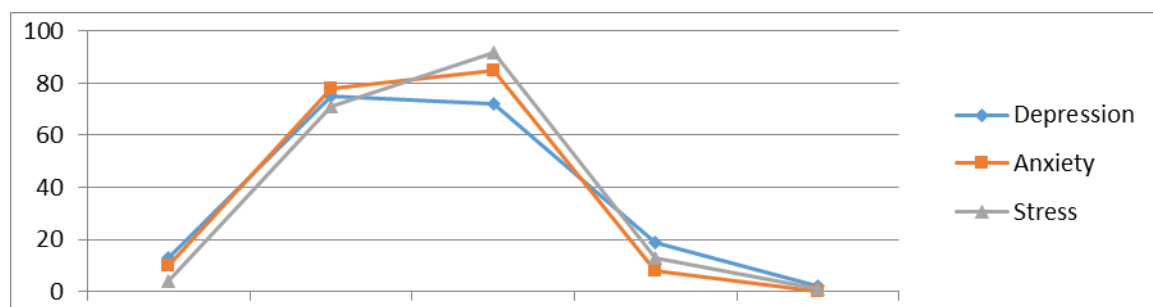


Figure 1. Depression, Anxiety and Stress Sub-Variable Level

The frequency of students with sub-variables depression at a moderate level was 72 students (39.8%), the severe level was 19 students (10.5%), and very severe level was 2 students (1.1%). For the Anxiety sub-variable, the frequency of students at a moderate level was 85 students (47%), 8 students (4.4%) were at a severe level, and non at a very severe level (0%). Students at the stress sub-variable with a moderate level was 92 students (50.8%), at severe level was 13 students (7.2%), and at very

severe level 1 students (0.6%). For more details on the condition of the DAS level in students can be seen in Figure 1. Based on figure 1, it can be seen that students experience 3 DAS sub-variables. It can also be seen that there is a tendency for students to experience all three DAS sub-variables simultaneously.

DISCUSSIONS

Based on the research results, students experienced DAS during the

pandemic from very severe to normal levels. The discussion will be reviewed based on each sub-variable. For the depression sub-variable based on its aspects including low learning motivation, low self-esteem and mood swings during the online learning process, students in Binjai and Medan City have these aspects in the category low to very severe, precisely 75 students (41.4%) experienced mild depression, 72 (39.8%) students experienced moderate depression, 19 (10.5) students were in severe condition, and there were 2 students in very severe condition.

It can be concluded that online learning affects students' psychological condition. The Covid-19 pandemic could be a significant contributing factor that caused students to be at a certain level of depression. The Covid-19 pandemic has also caused changes in social conditions, social demands and social roles, such as not being allowed to leave the house, limited interactions, if they want to carry out activities outside the home they must protect themselves such as wearing masks, sanitizer (limited), fear of social interaction, fear of visiting public places, guilt of visiting friends or neighbors so that this condition also raises indicators of depression as stated by Dirgayunita (2016) that social factors such as past tragic events, gender, social demands, social roles, and social conditions could lead to depression.

Similarly, the results of research by Barros et al. (2020) found that Brazilian students had psychological symptoms of depression/sadness, and anxiety or nervousness as much as 40.4% and 52.6%. Furthermore, a study in Spain during the Covid-19 pandemic showed that most students experienced more symptoms of

depression, anxiety and stress caused by fear of being infected or transmitting undiagnosed Covid-19 to others, lack of adequate personal protective equipment and having to adapt to distance education activities (Ozamiz-Etxebarria et al, 2020; Savitsky et al, 2020; Sharma, et al, 2020; Tunc et al, 2021). Therefore, it can be concluded that the Covid-19 pandemic was a factor causing depression both in the learning system (from offline to online) and changing social conditions (unfulfilled social needs).

Anxiety is like something that suffocates (Steven, 2000). Anxiety is similar to fear but with a less specific focus. Fear is usually a response to immediate threat, whereas anxiety is characterized by worry about unexpected dangers in the future. Students in Binjai and Medan city during the Covid-19 pandemic experienced anxiety. Based on the results of the study, 78 students (43.1%) experienced mild anxiety, 85 students (47%) experienced moderate anxiety and 8 students (4.4%) experienced severe anxiety. Students who experience anxiety can be seen from physiological symptoms (muscle tension, dizziness), panic and fear that are felt maybe not only in the learning process but rather the Covid-19 pandemic situation so that the quality of the online learning process is reduced, as seen from the quality of assignments or activeness while studying. The Covid-19 pandemic period also contributed significantly to indicators of anxiety in students, such as when the Covid-19 pandemic would be over or was afraid the pandemic would not end.

During the Covid-19 pandemic, students' negative emotions increased, marked by foreboding and somatic tension, such as a racing heart, sweating, and difficulty breathing. The Covid-19

pandemic also states anxiety that occurs in students, one of the stressors is career and future anxiety (Mahmud et al., 2021; Rajabimajd et al., 2021). During the Covid-19 pandemic, many things happened, such as massive layoffs. As a result, students are anxious about their future careers after graduating from college because the end Covid-19 era could not be predicted.

Accordingly, the results of research in Asia (Malaysia, Saudi Arabia, Pakistan, Bangladesh, China, India and Indonesia) revealed that 35.6% of students experience mild to very severe anxiety (Chinna et al., 2021). Other research also explained that college students in Bangladesh, Egypt, Ethiopia, Lebanon and Turkey experienced anxiety from 27.7% to 71.5% during the Covid-19 pandemic (Aylie et al., 2021; Fawaz et al., 2021; Ghazwy et al. 2020).

Based on the current research results and previous research, the Covid-19 pandemic is an indicator that triggers individuals to experience anxiety caused by changes during the pandemic is occur from mild to severe levels of anxiety. This should also be a consideration for educators and the government to reduce the impact of the Covid-19 Pandemic, such as providing counseling services either on campus or with an online system so that anxiety can be solved adequately.

The results showed that 71 students (39.2%) experienced mild stress, 92 students (50.8%) experienced moderate stress, and 13 students (7.2%) experienced severe stress. The Covid-19 pandemic has not only changed the learning system but also restricted movement and social interaction, thus triggering stress in students. Social interaction is part of the developmental stages of late adolescence and early adulthood. During the Covid-19 pandemic, outdoor activities stopped, and

students were bored with the regulation of staying at home. Moreover, many assignments were given, and it was challenging to complete due to the limited task reference due to being unable to carry out activities outside. Furthermore, online learning systems bored students due to restricted interactions with lecturers and unstable signal conditions that make students tired. Fatigue is part of the stress indicator (Parkitny & McAuley, 2010). It can be concluded that stress is caused by changes in the learning system, learning methods, learning environment and social situations during the covid-19 pandemic.

Additionally, Puspitaningsih (2015) stated that stress could be divided into distress and eustress. Distress is a form of negative stress characterized by difficulty concentrating, irritability, slow decision-making, forgetfulness, lack of energy, and irritability. This form of Distress is disconcerting and detrimental, and it is tough for individuals to cope with their emotions (severe and very severe stress levels). In contrast, a eustress is a positive form of stress. Individuals in this state can manage well and deal with a condition they face positively (moderate or normal stress levels). Students are faced with additional stressors during the Covid-19 pandemic, such as disruption of personal activities, changes in class schedules and transitions to virtual classrooms, and minimal equipment to prevent transmission of Covid-19 (Savitsky et al., 2020; Sharma et al., 2021; Tunc et al., 2021).

CONCLUSIONS

Based on research results, after conducting descriptive analysis, it was found that students experienced Depression, Anxiety and Stress or DAS during the Covid-19 pandemic at a moderate level means that there were

students in Binjai and Medan city who had low learning motivation, low self-esteem and fluctuating moods, physiological symptoms (muscle tension, dizziness), panic and fear of changes in the learning system, learning methods, learning environment and social situations of the online learning process during the Covid-19 pandemic.

ACKNOWLEDGMENT

The researcher would like to thank the students who have participated in this research.

REFERENCES

- Aylie, N. S, Mekonen, A. M, & Mekuria, R. M. (2020) The psychological impacts of COVID-19 pandemic among university students in Bench-Sheko Zone, South-west Ethiopia: a community-based cross-sectional study. *Psychol Res and Behav Manag.* 13 813–821. <https://doi.org/10.2147/PRBM>
- Budiastuti, A. (2021). Pembelajaran Daring: Depresi dan Kecemasan Pada Mahasiswa Selama Pandemi Covid-19. *Kampurui Jurnal Kesehatan Masyarakat*, 3(1), 1-5. <https://doi.org/10.55340/kjkm.v3i1.3>
- Christyanti, D., Mustami'ah, D., & Sulistiani, W. (2012). Hubungan antara penyesuaian diri terhadap tuntutan akademik dengan kecenderungan stres pada mahasiswa Fakultas Kedokteran Universitas Hang Tuah Surabaya. *Jurnal Insan Media Psikologi*, 12(3).
- Davison, K.J & Neale. (2004). Psikologi Abnormal. Jakarta: Raja Grafindo Persada.
- Dirgayunita, A. (2016). Depresi: Ciri, penyebab dan penanganannya. *Journal An-Nafs: Kajian Penelitian Psikologi*, 1(1), 1-14. <https://doi.org/10.33367/psi.v1i1.235>
- Chinna, K., Sundarasan, S., Khoshaim, H. B., Kamaludin, K., Nurunnabi, M., Baloch, G. M., ... & Memon, Z. (2021). Psychological impact of COVID-19 and lock down measures: An online cross-sectional multicounty study on Asian university students. *PloS one*, 16(8). <https://doi.org/10.1371/journal.pone.0253059>
- Fawaz M, Samaha A. (2021) E-learning: depression, anxiety, and stress symptomatology among Lebanese university students during COVID-19 quarantine. *Nurs Forum.* 56(1), 52–57. <https://doi.org/10.1111/nuf.12521>
- Fitria, P. A., & Saputra, D. Y. (2020). Dampak Pembelajaran Daring Terhadap Kesehatan Mental Mahasiswa Semester Awal. *Jurnal Riset Kesehatan Nasional*, 4(2), 60-66. <https://doi.org/10.37294/jrkn.v4i2.250>
- Ghazawy, E. R., Ewis, A. A., Mahfouz, E. M., Khalil, D. M., Arafa, A., Mohammed, Z., ... & Mohammed, A. E. N. S. (2021). Psychological impacts of COVID-19 pandemic on the university students in Egypt. *Health Promotion International*, 36(4), 1116-1125. <https://doi.org/10.1093/heapro/daaa147>
- Kumbara, H., Metra, Y., & Ilham, Z. (2018). Analisis tingkat kecemasan (anxiety) dalam menghadapi pertandingan atlet sepak bola Kabupaten Banyuasin pada Porprov 2017. *Jurnal Ilmu Keolahragaan*, 17(2), 28-35. <https://doi.org/10.24114/jik.v17i2.12299>
- Lovibond PF, Lovibond SH (1995). Manual for the Depression Anxiety Stress Scales 2nd ed. Sydney, Psychology Foundation.

- Argo, T. M., Kurniawan, A., Liem, J. A., Sugianto, J. O., Michael, R. J., Tanuwijaya, N. V. S., ... & Rivami, D. S. (2021). Profile and factors associated with depression, anxiety, and stress in Indonesian people during COVID-19 pandemic. *Medicus*, 8(3), 131-140. <http://dx.doi.org/10.19166/med.v8i3.3770>
- Ozamiz-Etxebarria, N., Dosil-Santamaria, M., Picaza-Gorrochategui, M., & Idoiaga-Mondragon, N. (2020). Stress, anxiety, and depression levels in the initial stage of the COVID-19 outbreak in a population sample in the northern Spain. *Cadernos de saude publica*, 36. <https://doi.org/10.1590/0102-311X00054020>
- Parkitny, L. & Mcauley, J.H. (2010). The Depression Anxiety Stress Scale (DASS). Academia.
- Puspitaningsih, D. (2015). Stres mahasiswa saat penyusunan karya tulis ilmiah di Poltekkes Majapahit Mojokerto. *Jurnal Ilmiah Kesehatan Politeknik Kesehatan Majapahit Mojokerto*. 7(1): 19-29.
- Rajabimajid, N., Alimoradi, Z., & Griffiths, M. D. (2021). Impact of COVID-19-related fear and anxiety on job attributes: A systematic review. *Asian Journal of Social Health and Behavior*, 4(2), 51-55. https://doi.org/10.4103/shb.shb_24_2
- Safaria, T. & Saputra, N.E. (2012). Manajemen Emosi: Sebuah panduan cerdas bagaimana mengelola emosi positif dalam hidup Anda. Jakarta: Bumi Aksara.
- Salam, A., Mahadevan, R., Rahman, A. A., Abdullah, N., Abd Harith, A. A., & Shan, C. P. (2015). Stress among first and third year medical students at University Kebangsaan Malaysia. *Pakistan journal of medical sciences*, 31(1), 169. <https://doi.org/10.12669/pjms.311.6473>
- Salari, N et al. (2020). Prevalence of Stress, Anxiety, Depression among the General Population During the COVID-19 pandemic: a systematic review and meta-analysis. 16:57 (<https://globalizationandhealth.biomedcentral.com/articles/10.1186/s12992-020-00589-w>)
- Savitsky, B., Findling, Y., Erel, A., & Hendel, T. (2020). Anxiety and coping strategies among nursing students during the covid-19 pandemic. *Nurse education in practice*, 46, 102809. <https://doi.org/10.1016/j.nepr.2020.102809>
- Sharma, R., Bansal, P., Chhabra, M., Bansal, C., & Arora, M. (2021). Severe acute respiratory syndrome coronavirus-2-associated perceived stress and anxiety among Indian medical students: A cross-sectional study. *Asian Journal of Social Health and Behavior*, 4(3), 98. https://doi.org/10.4103/shb.shb_9_21
- Steven, S.S. (2000). *Abnormal Psychology: a discovery approach*. California: Mayfield Publishing Company.
- Steven, S.S. (2000). *Abnormal Psychology: a discovery approach*. California: Mayfield Publishing Company
- Talukder, U. S., Anayet, H. T. B., Mandal, S., Ahmed, F., & Ibrahim, M. A. (2020). Depression in Di-alysis: A Poor Prognostic Factor and the Mechanism behind It. *Int J Depress Anxiety*, 3, 019. <https://doi.org/10.23937/2643-4059/1710019>
- Tuncel OK, Taşbakan SE, Goğkengin D, Erdem HA, Yamazhan T, Sipahi OR, et al. (2021). The deep impact of the COVID-19 pandemic on medical students: An online cross-sectional

- study evaluating Turkish Students' anxiety. *Int J Clin Pract.* <https://doi.org/10.1111/ijcp.14139>
- hifzul Muiz, M., & Sumarni, N. (2020). Pengaruh teknologi pembelajaran kuliah online di era Covid-19 dan dampaknya terhadap mental mahasiswa. *EduTeach: Jurnal Edukasi Dan Teknologi Pembelajaran*, 1(2), 153-165. <https://doi.org/10.37859/eduteach.v1i2.1987>
- Zhang, C., Ye, M., Fu, Y., Yang, M., Luo, F., Yuan, J., & Tao, Q. (2020). The psychological impact of the COVID-19 pandemic on teenagers in China. *Journal of Adolescent Health*, 67(6), 747-755. <https://doi.org/10.1016/j.jadohealth.2020.08.026>
- Zhang, J., Lu, H., Zeng, H., Zhang, S., Du, Q., Jiang, T., & Du, B. (2020). The differential psychological distress of populations affected by the COVID-19 pandemic. *Brain, behavior, and immunity*, 87, 49. <https://doi.org/10.1016/j.bbi.2020.04.031>