

Diagnostics of COVID-19 Post-Traumatic Anxiety in Students

Nuraly Masum Aprily¹, Elsa Lestari¹, Anggi Maulana Rizqi¹, Zulfin Rachma Mufidah²

¹Universitas Pendidikan Indonesia, Indonesia

²Universitas Negeri Surabaya, Indonesia

Article Info

Article history:

Received: Sep 26, 2023

Revised: Nov 28, 2023

Accepted: Dec 22, 2023

DOI: [10.58418/ijeqqr.v2i2.100](https://doi.org/10.58418/ijeqqr.v2i2.100)

How to cite this article:

Aprily, N. M., Lestari, E., Rizqi, A. M., & Mufidah, Z. R. (2023).

Diagnostics of COVID-19 Post-Traumatic Anxiety in Students. *International Journal of Educational Qualitative Quantitative Research*, 2(2), 1–8.

Read online:



Scan this QR code with your smart phone or mobile device to read online.

ABSTRACT

Post-traumatic anxiety COVID-19 is a state of students after experiencing a pandemic. Post-traumatic anxiety is classified and analyzed based on physical symptoms, emotional symptoms, mental symptoms, behavioral symptoms, spiritual symptoms, and several statements containing conditions that are the condition of post-traumatic COVID-19 students. This study aims to know and find symptoms experienced by students regarding post-traumatic anxiety due to COVID-19. The method used in this study is to use the observation method through data collection by filling out a questionnaire. The sample for this research consisted of 68 students at Anaka State Elementary School, Kawalu sub-district, Tasikmalaya city, Indonesia. Based on the observation results, data was obtained with the most dominant physical symptoms being dizziness, the most dominant emotional symptoms being feeling shaken, the most predominant mental symptoms being forgetfulness, the most dominant behavioral symptoms being crying, and the most dominant spiritual symptoms being grumbling. This research contributes as an overview for teachers and prospective teachers about the condition of students post-COVID and recommends strengthening psychology education to overcome this problem.

Keywords: Educational Psychology, Student Anxiety, Post-Traumatic, Student Experience, Elementary School



This is an open access article under the [CC BY-SA 4.0](https://creativecommons.org/licenses/by-sa/4.0/) license.

Corresponding Author:

Nuraly Masum Aprily

Universitas Pendidikan Indonesia, Indonesia

Email: nuralymasumaprily@upi.edu

1. INTRODUCTION

The discipline of educational psychology is crucial to master during the training process for teaching positions since it is linked to student characteristics and can help identify the most effective teaching and learning strategies (Bardach et al., 2022; Ismi et al., 2021; Lukman et al., 2021). When entering the field of education, one of the scientific disciplines that educators require preparation in is educational psychology. Teachers must facilitate learning and understand the qualities of the students they teach (Chew & Cerbin, 2021; Sutarto et al., 2020). The study of educational psychology looks at how emotions impact learning. Teachers and students alike may foster a more encouraging and practical learning environment by being aware of and controlling their emotions (Guay, 2022; Ronen & Kerret, 2020). Identification and treatment of issues like dyslexia, attention difficulties, and other learning challenges are aided by educational psychology (Anderson, 2021; Graesser et al., 2022). It entails creating suitable interventions and modifying the curriculum to accommodate learners with unique requirements. The study of educational psychology looks at how culture and society affect learning. Comprehending students' cultural and social backgrounds facilitates the establishment of inclusive and diversity-aware learning environments. Educational psychology plays a critical role in enhancing the educational process by offering insight into how students learn, how to support them effectively, and how to design productive and encouraging learning environments (Johnson et al., 2020; Komara et al., 2023).

Even after COVID-19 has finished, the epidemic may have long-term psychological effects on parents, teachers, and kids. These effects could include persistent anxiety disorders or post-traumatic stress disorder. The phenomenon in the world of education related to post-traumatic anxiety due to COVID-19 in students covers various aspects, from psychological impacts to the response of the education system. Post-traumatic anxiety due to COVID-19 occurs in students, both physically, emotionally, mentally, behaviorally, and spiritually (Al Nasiri et al., 2024). Anxiety is a disorder in the mental system that causes a lack of safety and comfort in facing a problem. Although currently learning takes place face-to-face, the symptoms felt when experiencing anxiety in the COVID-19 pandemic era still linger in elementary school students, and this can also be called post-traumatic anxiety due to COVID-19. Post-Traumatic Stress Disorder (PTSD) is a continuous maladaptive reaction to a traumatic experience or event (María-Ríos & Morrow, 2020; Tarhan et al., 2022). Based on this explanation, it can be seen that PTSD can interfere with activities carried out by students, especially mental symptoms, thus changing behavioral patterns, attitudes, and habits that were carried out before the COVID-19 pandemic era with the post-COVID-19 era. Research by Karbasi & Eslami (2022) claims that restrictions and anxieties about COVID-19 have a detrimental psychological impact on children.

Anxiety among students after COVID-19 is a significant problem that requires careful consideration. The pandemic has significantly altered how children learn and interact, with potentially severe consequences for their mental health. There is still a lack of research on anxiety among students after COVID-19. Most researchers conducted research during the COVID-19 pandemic. However, few researchers conducted research after COVID-19. For example, research by Zhou et al. (2021) found after COVID-19, there was a significant relationship between the symptoms of anxiety, depression, and sleep quality in high school students. Research by Durbas et al. (2021) investigated the degree of stress and anxiety experienced by Turkish university students after the COVID-19 outbreak. Yusof & Johari (2023) conducted a study on the connection among high school students' motivation and mental health pasca COVID-19. In contrast to the previous studies, the novelty of this study is to diagnose post-COVID-19 anxiety in students. This study aims to know and find symptoms experienced by students regarding post-traumatic anxiety due to COVID-19, as well as finding solutions based on data analysis conducted by researchers, as well as studies conducted by researchers to provide implications for each reader as a reference in dealing with similar problems in the field.

2. METHOD

The type of research is quantitative descriptive research. The method used in this study is to use the observation method through data collection by filling out a questionnaire. The sample for this research consisted of 68 students at Anaka State Elementary School, Kawalu sub-district, Tasikmalaya city, Indonesia. This study used a survey technique by distributing questionnaires as a research instrument to 68 students of Anaka State Elementary School.

This research variable discusses psychological problems regarding post-traumatic anxiety of COVID-19. The data in this study are the results of observations of Anaka State Elementary School students who have post-traumatic anxiety from COVID-19. The instrument used in this study is in the form of filling out a questionnaire. The form of the questionnaire is used based on the indicator, namely Answering Questions. The research data that has been collected is then analyzed using the following steps. First, collect the results of answers from students; second, calculate how many have post-traumatic anxiety problems from COVID-19. The questionnaire trial has been tested for validity and reliability with valid and reliable results.

3. RESULTS AND DISCUSSION

3.1. Results

Based on observations through data collection on students at Anaka State Elementary School sampling 68 students, data was obtained that among them, there were students who experienced post-traumatic anxiety of COVID-19. Post-traumatic anxiety of COVID-19 occurs in elementary school students, both physically, emotionally, mentally, behaviorally, and spiritually. Figure 1 shows the physical symptoms of post-traumatic anxiety experienced by students at of Anaka State Elementary School. 44% of students experienced dizziness, 32% experienced dry throat, 42% of students experienced stomach pressure, 12% experienced chest tightness/pain, 15% experienced heart palpitations, 21% experienced headaches, 29% experienced stomach pain, 15% experienced diarrhea, 24% experienced allergies/itching, 21% of students experienced muscle tension, 41% of students had no energy, 3% of students experienced a clenched jaw, 21% of students sweated a lot, and no students experienced seizures, sitting restlessly, rapid heartbeat, and grinding teeth. The most dominant physical symptom experienced by students was dizziness; this was because students were used to online learning at home and now felt hesitant again when carrying out offline learning, so most students experienced dizziness.

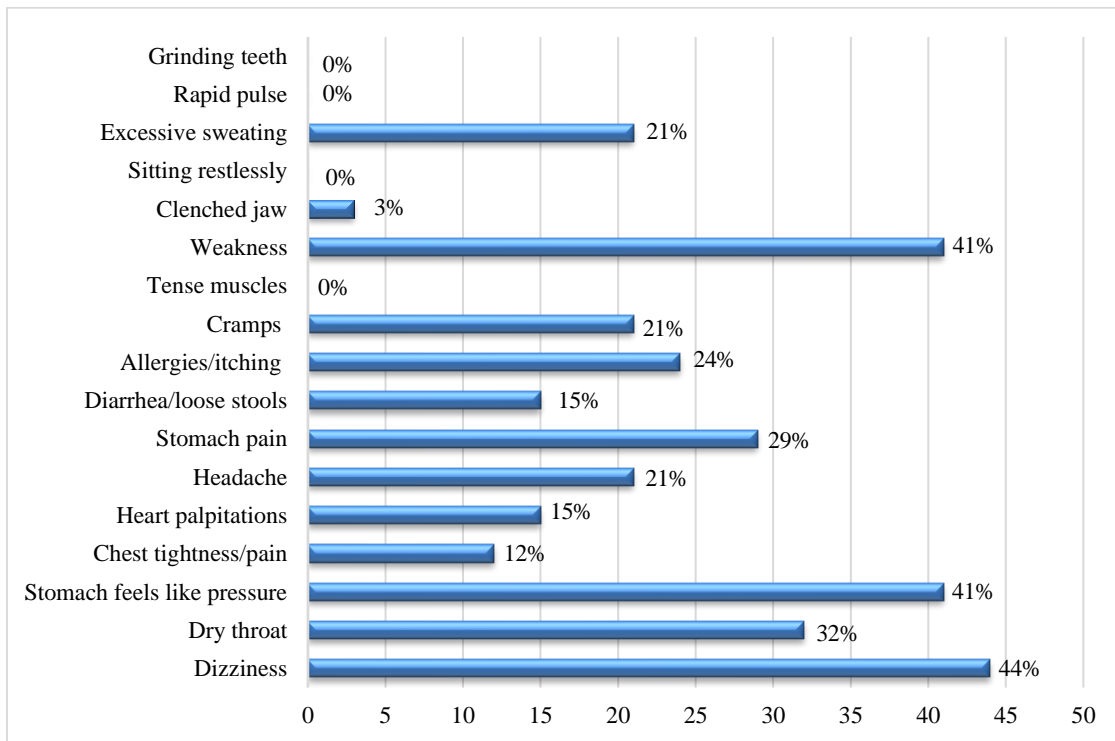


Figure 1. Physical Symptoms

In addition to physical symptoms, students also experience emotional post-trauma from COVID-19. Figure 2 shows the emotional symptoms experienced by students. 3% of students experienced fear, 18% experienced feelings of shock, 6% experienced feelings of shock, 9% experienced feelings of irritation, 3% experienced feelings of resignation, 3% felt blamed, 3% felt worried, and 15% of students felt bored. Based on several emotional symptoms experienced by students, no students experienced numbness, denial, despair, surrender, cynicism, regret, feeling helpless, loss of confidence, isolation, and depression. The most dominant emotional symptom experienced by students was feelings of shock. This was caused by the tension of feelings and levels of anxiety students felt when returning to school and studying offline because some students already felt comfortable studying online at their respective homes.

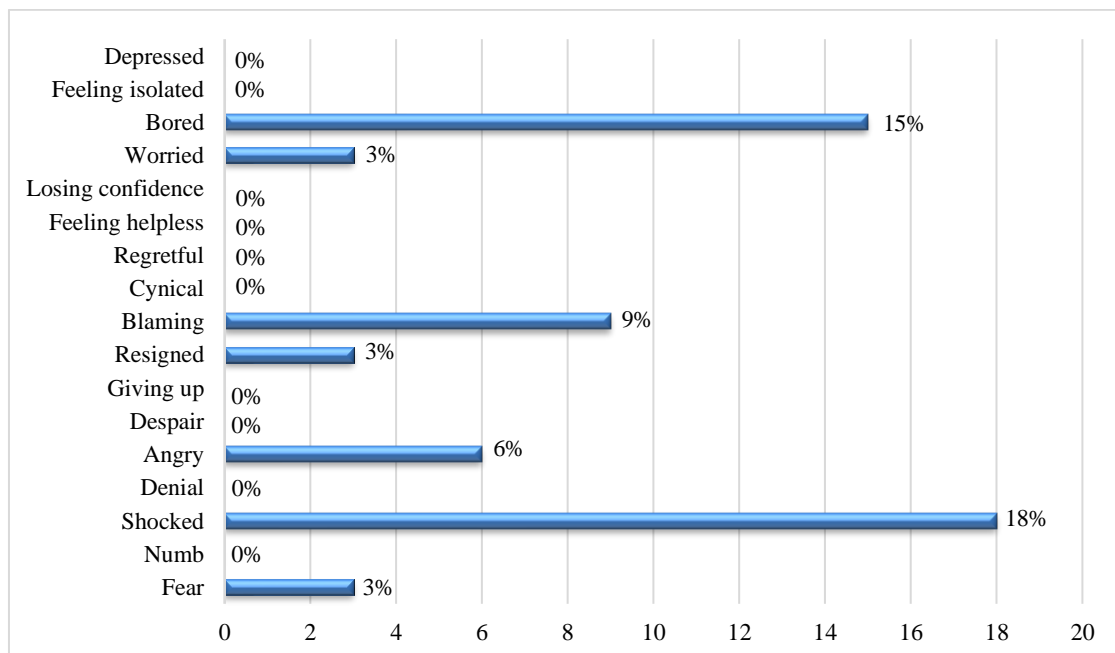


Figure 2. Emotional Symptoms

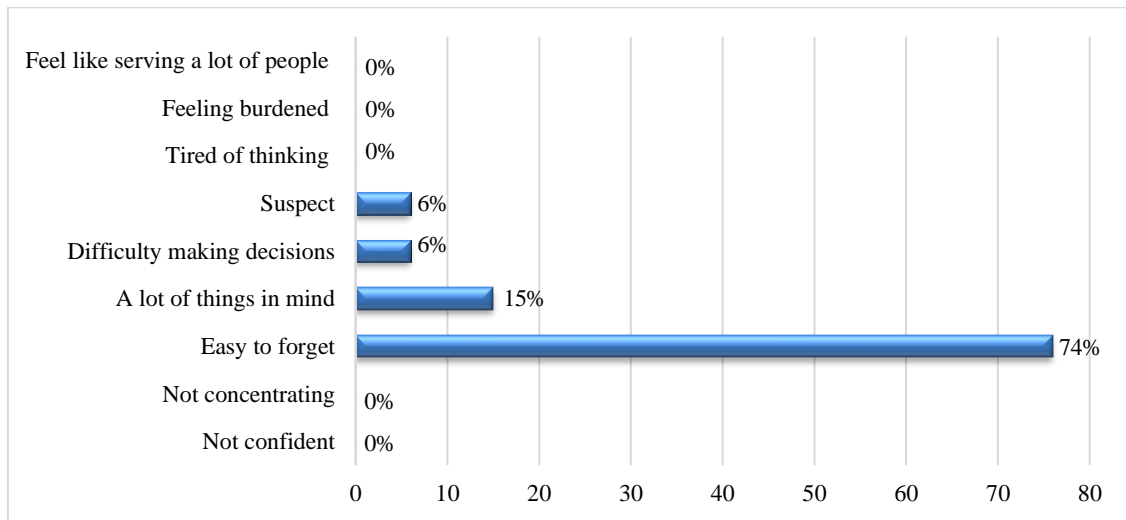


Figure 3. Mental Symptoms

Based on the findings, it is known that in addition to physical symptoms and emotional symptoms, students also experience post-trauma COVID-19 mentally as shown in Figure 3. The mental symptoms experienced by students are that 74% of students become forgetful, 15% of students feel they have a lot on their mind, 6% have difficulty making decisions, and 6% have feelings of suspicion towards others. However, when viewed from several mental symptoms experienced by students, no students experienced feelings of distrust, lack of concentration, thinking more, feeling burdened, and feeling like they are serving many people. Based on the data obtained, the most dominant mental symptom experienced by students is feelings of forgetfulness; this is due to the influence of online learning, which makes students feel more relaxed and waste their time in vain, so students find it difficult to remember many things when they return to school offline.

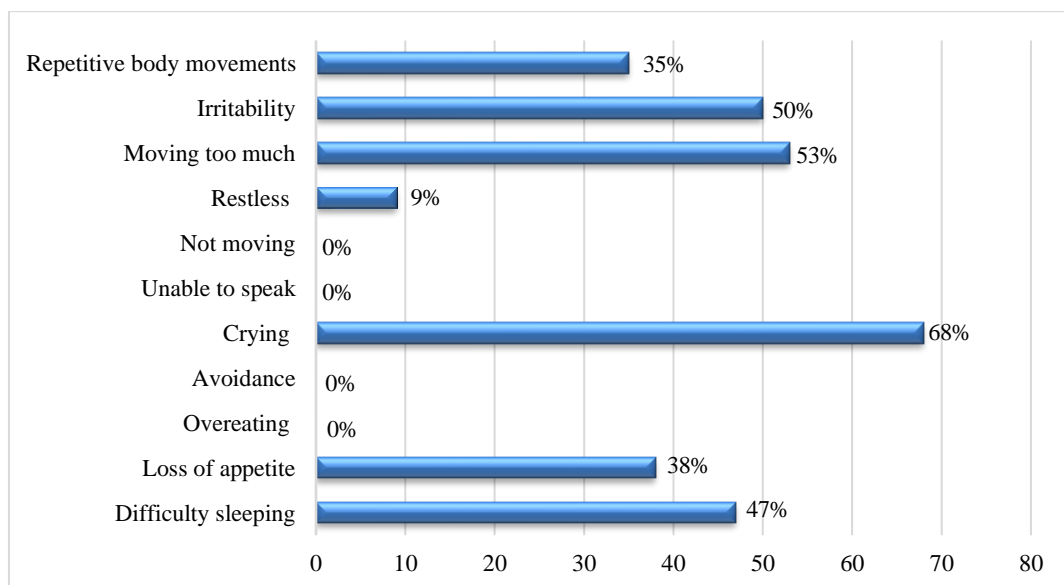


Figure 4. Behavioral Symptoms

Based on data obtained through observation of data collection, in addition to experiencing physical, emotional, and mental symptoms, students also experienced post-traumatic COVID-19 behavioral symptoms, as presented in Figure 4. The behavioral symptoms experienced by post-traumatic students include 47% of students having difficulty sleeping, 38% of students losing their appetite, 68% of students often crying, 9% of students having feelings of restlessness, 53% of students moving too much, 50% of students getting angry easily, and 39% of students always moving their body parts repeatedly. Based on several behavioral symptoms experienced by students, no students felt like they were overeating, avoiding, being unable to speak, and not moving. The most dominant behavioral symptom experienced by students was frequent crying; this was because they felt stressed and had to adapt to offline school again.

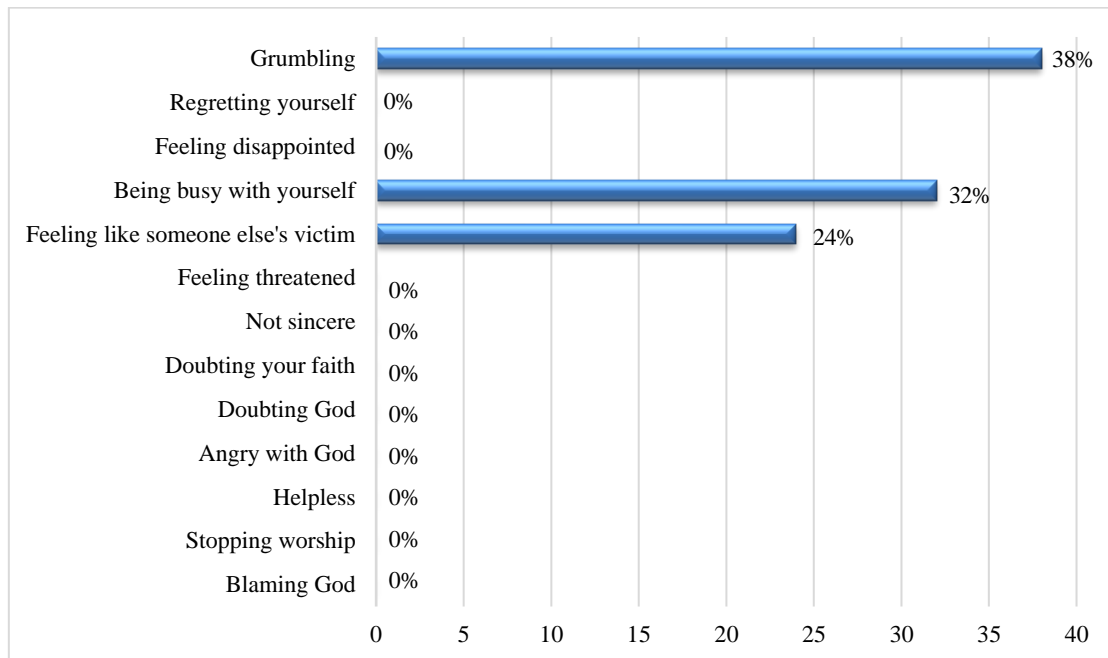


Figure 5. Spiritual Symptom

The last symptom experienced by students after COVID-19 trauma is a spiritual symptom, as presented in Figure 5. 24% of students feel like they are victims of other people, 32% of students feel busy with themselves, and 38% of students experience feelings of grumbling. Based on several spiritual symptoms experienced by students, no students blame God, stop worshipping, feel helpless, angry with God, doubt God, are insincere, feel threatened, feel disappointed, and regret themselves. The most dominant spiritual symptom experienced by students is feelings of grumbling; this is because many students wonder why this pandemic event could happen and what caused it.

3.2. Discussion

The Covid-19 pandemic has drastically changed students' lives, from sudden online learning to uncertainty about the future. Students losing their usual routines, social interactions, and sense of security from the school environment can lead to anxiety. According to Paralkar & Knutson (2023) and Valentina et al. (2023) anxiety occurs because of feeling worried about academic and social uncertainty in the future. In general, according to the opinion of Alvitarsi & Karjoso (2024), MacLean et al. (2023), and Calleja-Núñez et al. (2023) that post-COVID-19 students have difficulty adapting to social changes after returning to school physically. Interrupting social interactions during the pandemic can cause problems rebuilding social relationships and functioning in groups. Some students may also experience social anxiety or difficulty getting along with peers. In addition, students are used to not making the habits they do at school, but in online learning, students feel relaxed, which can cause post-traumatic anxiety COVID-19.

The most dominant physical symptom of post-traumatic anxiety experienced by students is dizziness. The habits of students who usually follow online learning at home face to face with the internet using electronic media such as cellphones and laptops have changed to offline learning by meeting face to face. According to Kang et al. (2017), anxiety has an impact on physical health. Supported by Idris et al. (2021), physical health problems can worsen anxiety and affect students' ability to concentrate and learn effectively.

The most dominant post-traumatic emotional symptoms experienced by students are feeling shaken. Students feel tension and anxiety when they return to school, normally face-to-face (offline), because they already feel comfortable studying online at home. According to (Stuijzand et al., 2020) and Bjørlykhaug et al. (2022), efforts can be made to provide adequate emotional and psychological support from family, friends, and mental health professionals.

The most dominant post-traumatic mental symptom experienced by students is forgetfulness. The influence of online learning makes students more relaxed and wastes their time; students do not learn optimally, just doing assignments via the internet without reading books or memorizing materials. When learning returns to normal, students experience side effects that arise and feel difficult. According to Gee et al. (2021) and Karaman et al. (2021), mental symptoms can be overcome through the implementation of mental health and counseling programs in schools to provide more structured support to students.

The most dominant post-traumatic behavioral symptoms experienced by students are frequent crying because they feel pressured to adapt to offline school again. Ulrich et al. (2023) and Gupta et al. (2020) stated that anxiety and stress often affect sleep patterns. Supported by Jalali et al. (2020) and Yasmin et al. (2020), sleep disturbances can worsen anxiety and affect students' ability to concentrate and learn effectively. Students can better cope by understanding these behavioral symptoms and providing appropriate support.

The most dominant post-traumatic spiritual symptom experienced by students is a feeling of grumbling because many students wonder why this pandemic event could happen and what caused it. According to Zhang et al., (2021), trauma due to the pandemic has affected many aspects of life, including students' spiritual or existential dimensions. Students may feel a loss of meaning and purpose in life after experiencing trauma. The pandemic can cause them to feel confused about the direction of their lives, academic goals, or life in general. Students may experience identity and self-identity confusion, feeling disconnected from values and beliefs they previously considered necessary. Provide counseling or therapy that considers students' spiritual and existential aspects.

4. CONCLUSION

The most dominant physical symptom of post-traumatic anxiety experienced by students is dizziness. Second, emotional symptoms, post-trauma experienced by most dominant students, is feeling shaken. Third, the most predominant mental symptoms of post-trauma experienced by students are forgetfulness. Fourth, the most dominant behavioral symptom of post-trauma experienced by students is frequent crying. Fifth, the most dominant spiritual symptoms of post-trauma experienced by students are feelings of grumbling. The diagnosis of symptoms that are appropriate for post-COVID-19 trauma experienced by students is 1) Difficulty interacting with other people, 2) Preferring to be alone, 3) Feeling that life is meaningless since experiencing a tragic event, 4) Experiencing sleep disorders (sleeping a lot or having trouble sleeping), 5) Crying easily, 6) Feeling helpless, and 7) Easily anxious and panicking when unexpected events occur.

With a holistic approach and appropriate support, students can better cope with the anxiety they experience post-pandemic and rebuild their overall well-being. In addition, it is necessary to provide adequate emotional and psychological support from family, friends, and mental health professionals. Provide flexible approaches in learning and assessment to accommodate individual student needs. Implement mental health and counseling programs in schools to provide more structured support to students.

ACKNOWLEDGMENT

The authors would like to thank all participants who supported this research.

REFERENCES

- Al Nasiri, Y., Al Balushi, A., Al Balushi, S., Al Alawi, K., Al Mashari, Z., Al Muqimi, B., Al Balushi, F., & Al Awaidy, S. (2024). Post-Traumatic Psychological Experience of COVID-19 Survivors: A Descriptive Phenomenological Study. *COVID*, 4(8), 1188–1203. <https://doi.org/10.3390/covid4080084>
- Alvitasari, A. T., & Karjoso, T. K. (2024). Transformasi Sosial Budaya Kesehatan Pasca Pandemi Covid-19: Systematic Review. *Media Publikasi Promosi Kesehatan Indonesia (MPPKI)*, 7(1), 73–81. <https://doi.org/10.56338/mppki.v7i1.4251>
- Anderson, A. (2021). Advancing School Professionals' Dyslexia Knowledge Through Neuroscience: Bridging the Science-Education Gap Through Developmental Psychology. *Frontiers in Education*, 5. <https://doi.org/10.3389/educ.2020.615791>
- Bardach, L., Klassen, R. M., & Perry, N. E. (2022). Teachers' Psychological Characteristics: Do They Matter for Teacher Effectiveness, Teachers' Well-being, Retention, and Interpersonal Relations? An Integrative Review. *Educational Psychology Review*, 34(1), 259–300. <https://doi.org/10.1007/s10648-021-09614-9>
- Bjørlykhaug, K. I., Karlsson, B., Hesook, S. K., & Kleppe, L. C. (2022). Social support and recovery from mental health problems: a scoping review. *Nordic Social Work Research*, 12(5), 666–697. <https://doi.org/10.1080/2156857X.2020.1868553>
- Calleja-Núñez, J. J., Granero-Gallegos, A., Espinoza-Gutiérrez, R., & Baños, R. (2023). Mediating effect of social interaction anxiety between emotional intelligence and life satisfaction in physical education students: post-COVID-19 study. *Frontiers in Psychology*, 14. <https://doi.org/10.3389/fpsyg.2023.1284664>
- Chew, S. L., & Cerbin, W. J. (2021). The cognitive challenges of effective teaching. *The Journal of Economic Education*, 52(1), 17–40. <https://doi.org/10.1080/00220485.2020.1845266>
- Durbas, A., Karaman, H., Solman, C. H., Kaygisiz, N., & Ersoy, Ö. (2021). Anxiety and Stress Levels

- Associated With COVID-19 Pandemic of University Students in Turkey: A Year After the Pandemic. *Frontiers in Psychiatry*, *12*, 731348. <https://doi.org/10.3389/fpsy.2021.731348>
- Gee, B., Wilson, J., Clarke, T., Farthing, S., Carroll, B., Jackson, C., King, K., Murdoch, J., Fonagy, P., & Notley, C. (2021). Review: Delivering mental health support within schools and colleges – a thematic synthesis of barriers and facilitators to implementation of indicated psychological interventions for adolescents. *Child and Adolescent Mental Health*, *26*(1), 34–46. <https://doi.org/10.1111/camh.12381>
- Graesser, A. C., Sabatini, J. P., & Li, H. (2022). Educational Psychology Is Evolving to Accommodate Technology, Multiple Disciplines, and Twenty-First-Century Skills. *Annual Review of Psychology*, *73*(1), 547–574. <https://doi.org/10.1146/annurev-psych-020821-113042>
- Guay, F. (2022). Applying Self-Determination Theory to Education: Regulations Types, Psychological Needs, and Autonomy Supporting Behaviors. *Canadian Journal of School Psychology*, *37*(1), 75–92. <https://doi.org/10.1177/08295735211055355>
- Gupta, R., Grover, S., Basu, A., Krishnan, V., Tripathi, A., Subramanyam, A., Nischal, A., Hussain, A., Mehra, A., Ambekar, A., Saha, G., Mishra, K., Bathla, M., Jagiwala, M., Manjunatha, N., Nebhinani, N., Gaur, N., Kumar, N., Dalal, P., ... Avasthi, A. (2020). Changes in sleep pattern and sleep quality during COVID-19 lockdown. *Indian Journal of Psychiatry*, *62*(4), 370. https://doi.org/10.4103/psychiatry.IndianJPsychiatry_523_20
- Idris, F., Zulkipli, I. N., Abdul-Mumin, K. H., Ahmad, S. R., Mitha, S., Rahman, H. A., Rajabalaya, R., David, S. R., & Naing, L. (2021). Academic experiences, physical and mental health impact of COVID-19 pandemic on students and lecturers in health care education. *BMC Medical Education*, *21*(1), 542. <https://doi.org/10.1186/s12909-021-02968-2>
- Ismi, S. F., Ramadhanti, Z. N., & Setiabudi, D. I. (2021). Peran Psikologi Pendidik Dalam Proses Belajar Mengajar Di Sekolah. *Jurnal Pendidikan Dan Kebudayaan (JURDIKBUD)*, *1*(2), 15–20. <https://doi.org/10.55606/jurdikbud.v1i2.295>
- Jalali, R., Khazaie, H., Khaledi Paveh, B., Hayrani, Z., & Menati, L. (2020). The Effect of Sleep Quality on Students' Academic Achievement. *Advances in Medical Education and Practice*, *11*, 497–502. <https://doi.org/10.2147/AMEP.S261525>
- Johnson, C. E., Keating, J. L., & Molloy, E. K. (2020). Psychological safety in feedback: What does it look like and how can educators work with learners to foster it? *Medical Education*, *54*(6), 559–570. <https://doi.org/10.1111/medu.14154>
- Kang, H.-J., Bae, K.-Y., Kim, S.-W., Shin, H.-Y., Shin, I.-S., Yoon, J.-S., & Kim, J.-M. (2017). Impact of Anxiety and Depression on Physical Health Condition and Disability in an Elderly Korean Population. *Psychiatry Investigation*, *14*(3), 240. <https://doi.org/10.4306/pi.2017.14.3.240>
- Karaman, M. A., Eşici, H., Tomar, İ. H., & Aliyev, R. (2021). COVID-19: Are School Counseling Services Ready? Students' Psychological Symptoms, School Counselors' Views, and Solutions. *Frontiers in Psychology*, *12*. <https://doi.org/10.3389/fpsyg.2021.647740>
- Karbasi, Z., & Eslami, P. (2022). Prevalence of post-traumatic stress disorder during the COVID-19 pandemic in children: a review and suggested solutions. *Middle East Current Psychiatry*, *29*(1), 74. <https://doi.org/10.1186/s43045-022-00240-x>
- Komara, E., Stefanie, S., Irnawati, R., & Agustini, T. (2023). Peran Psikologi Pendidikan untuk Meningkatkan Hasil Belajar Melalui Pembelajaran Berdiferensiasi dalam Implementasi Kurikulum Merdeka di Sekolah Dasar. *Jurnal Abdimas Bina Bangsa*, *4*(2), 1686–1698. <https://doi.org/10.46306/jabb.v4i2.791>
- Lukman, L., Marsigit, M., Istiyono, E., Kartowagiran, B., Retnawati, H., Kistoro, H. C. A., & Putranta, H. (2021). Effective teachers' personality in strengthening character education. *International Journal of Evaluation and Research in Education (IJERE)*, *10*(2), 512. <https://doi.org/10.11591/ijere.v10i2.21629>
- MacLean, A., Wild, C., Hunt, K., Nettleton, S., Skea, Z. C., & Ziebland, S. (2023). Impact of Long Covid on the school experiences of children and young people: a qualitative study. *BMJ Open*, *13*(9), e075756. <https://doi.org/10.1136/bmjopen-2023-075756>
- María-Ríos, C. E., & Morrow, J. D. (2020). Mechanisms of Shared Vulnerability to Post-traumatic Stress Disorder and Substance Use Disorders. *Frontiers in Behavioral Neuroscience*, *14*. <https://doi.org/10.3389/fnbeh.2020.00006>
- Paralkar, U., & Knutson, D. (2023). Coping with academic stress: Ambiguity and uncertainty tolerance in college students. *Journal of American College Health*, *71*(7), 2208–2216. <https://doi.org/10.1080/07448481.2021.1965148>
- Ronen, T., & Kerret, D. (2020). Promoting Sustainable Wellbeing: Integrating Positive Psychology and Environmental Sustainability in Education. *International Journal of Environmental Research and Public Health*, *17*(19), 6968. <https://doi.org/10.3390/ijerph17196968>
- Stuijzand, S., Deforges, C., Sandoz, V., Sajin, C.-T., Jaques, C., Elmers, J., & Horsch, A. (2020).

- Psychological impact of an epidemic/pandemic on the mental health of healthcare professionals: a rapid review. *BMC Public Health*, 20(1), 1230. <https://doi.org/10.1186/s12889-020-09322-z>
- Sutarto, S., Sari, D. P., & Fathurrochman, I. (2020). Teacher strategies in online learning to increase students' interest in learning during COVID-19 pandemic. *Jurnal Konseling Dan Pendidikan*, 8(3), 129. <https://doi.org/10.29210/147800>
- Tarhan, N., Konuk, M., Karahan, M., Özge Özcan, Ö., Öztürk Ayvaz, S., Hızlı Sayar, G., Ülküer, N., Ayas, H., & Zeynep Güder, F. (2022). New Diagnosis and Treatment Approaches to Post-Traumatic Stress Disorder. In *Stress-Related Disorders* (Emilio Ovu). IntechOpen. <https://doi.org/10.5772/intechopen.104098>
- Ulrich, A. K., Full, K. M., Cheng, B., Gravagna, K., Nederhoff, D., & Basta, N. E. (2023). Stress, anxiety, and sleep among college and university students during the COVID-19 pandemic. *Journal of American College Health*, 71(5), 1323–1327. <https://doi.org/10.1080/07448481.2021.1928143>
- Valentina, T. D., Nurcahyo, F. A., & Astiti, D. P. (2023). Source of anxiety and coping strategy in youth during the COVID-19 pandemic in Indonesia. *MEDIAPSI*, 9(1), 14–28. <https://doi.org/10.21776/ub.mps.2023.009.01.874>
- Yasmin, H., Khalil, S., & Mazhar, R. (2020). COVID 19: Stress management among students and its impact on their effective learning. *International Technology and Education Journal*, 4(2), 65–74. <https://dergipark.org.tr/en/download/article-file/1548758>
- Yusof, M. M., & Johari, K. S. K. (2023). The Relationship of Mental Health and Motivation among Secondary School Students Pasca Covid-19 Pandemic. *International Journal of Academic Research in Business and Social Sciences*, 13(12), 3938–3954. <https://doi.org/10.6007/IJARBSS/v13-i12/20275>
- Zhang, H., Hook, J. N., Van Tongeren, D. R., Davis, E. B., Aten, J. D., McElroy-Heltzel, S., Davis, D. E., Shannonhouse, L., Hodge, A. S., & Captari, L. E. (2021). Spiritual fortitude: A systematic review of the literature and implications for COVID-19 coping. *Spirituality in Clinical Practice*, 8(4), 229–244. <https://doi.org/10.1037/scp0000267>
- Zhou, C., Li, R., Yang, M., Duan, S., & Yang, C. (2021). Psychological Status of High School Students 1 Year After the COVID-19 Emergency. *Frontiers in Psychiatry*, 12, 729930. <https://doi.org/10.3389/fpsy.2021.729930>