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From Trauma to Academic Impairment: Cognitive-Emotional Dysregulation and Psychological Distress among University Students in the Post-Covid-19 Era

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Abstract

Background: *The post-COVID-19 era has intensified concerns regarding the mental health and academic functioning of university students. Trauma exposure and adverse childhood experiences may increase vulnerability to emotional dysregulation, cognitive difficulties, psychological distress, and impaired academic adjustment.*

Objective: *This narrative review aims to synthesize recent evidence on the relationship between trauma exposure, cognitive-emotional dysregulation, psychological distress, and academic impairment among university students in the post-COVID-19 era.*

Methods: *A narrative review of literature published between 2021 and 2026 was conducted using PubMed and Scopus. Priority was given to peer-reviewed empirical studies, systematic reviews, and meta-analyses examining trauma, adverse childhood experiences, emotion regulation, cognitive or executive functioning, psychological distress, and academic outcomes in university student populations.*

Results: *The literature suggests that trauma exposure is associated with greater emotional dysregulation, executive functioning difficulties, anxiety, depression, stress, burnout, and reduced academic engagement. Emotional dysregulation appears to represent a key pathway linking trauma-related experiences with psychological distress and academic impairment. Protective factors, including resilience, social support, self-compassion, and adaptive coping, may mitigate these negative outcomes.*

Conclusions: *Trauma-related cognitive-emotional dysregulation may play an important role in explaining psychological and academic difficulties among university students after COVID-19. These findings highlight the need for trauma-informed, cognitively oriented, and institutionally integrated mental health support within higher education.*

Keywords: Trauma; Emotional Dysregulation; Executive Functioning; University Students; COVID-19; Psychological Distress; Academic Impairment; Resilience.

Introduction

The transition to university represents a critical developmental period characterized by increased academic demands, social adjustment, identity formation, and heightened psychological vulnerability. Emerging adulthood is considered a sensitive developmental stage during which many mental health disorders first emerge, often coinciding with increased academic pressure, social challenges, and exposure to psychosocial stressors. University students therefore constitute a population particularly vulnerable to emotional distress, psychological difficulties, and impaired academic functioning, especially when previous traumatic experiences or adverse childhood experiences (ACEs) are present. Recent literature indicates that trauma exposure and psychological vulnerability are highly prevalent among university students. Studies have demonstrated that a substantial proportion of students report emotional distress, trauma-related symptoms, maladaptive coping, and psychological difficulties during and after the COVID-19 pandemic (Holmes et al., 2025; Gao et al., 2023). Trauma exposure has consistently been associated with increased levels of anxiety, depression, stress, emotional exhaustion, and maladaptive coping among university populations (Mastrokoukou et al., 2024; Moghimi et al., 2023). In addition, trauma-related vulnerability and reduced resilience have been linked to poorer psychological well-being during emerging adulthood (McLaughlin et al., 2020; Mastrokoukou et al., 2024).

The COVID-19 pandemic further intensified these psychological vulnerabilities and significantly affected students' emotional and academic functioning worldwide. The abrupt transition to online learning, prolonged social isolation,

financial uncertainty, health-related fears, and disruption of daily routines contributed to elevated psychological distress among university students (Cielo et al., 2021; Granieri et al., 2021). Meta-analytic evidence demonstrated increased prevalence rates of anxiety, depression, stress, sleep disturbances, and emotional exhaustion during and after the pandemic period (Batra et al., 2021; Jiménez-Villamizar et al., 2025). Furthermore, several studies reported declines in academic engagement, concentration, motivation, and overall academic performance following the transition to remote learning environments (Lee et al., 2021; Wang et al., 2020; Siena et al., 2024).

A growing body of evidence suggests that trauma exposure may significantly disrupt cognitive-emotional functioning, particularly emotional regulation and executive functioning processes (McLaughlin et al., 2020). Emotional dysregulation refers to difficulties in monitoring, evaluating, and modulating emotional responses in adaptive ways (Gratz & Roemer, 2004). Trauma-related emotional dysregulation has been associated with impaired attentional control, reduced cognitive flexibility, working memory difficulties, emotional instability, and maladaptive coping strategies (Mora et al., 2022). Contemporary neurocognitive models further suggest that chronic stress and trauma may negatively affect executive functioning systems involved in emotional control, self-regulation, and decision-making (McLaughlin et al., 2020). These cognitive-emotional difficulties may substantially interfere with academic functioning and educational attainment. Executive functions such as attention regulation, inhibitory control, planning, and working memory are essential for successful academic adaptation, yet these processes appear particularly vulnerable to trauma-related dysregulation (Mastrokoukou et al., 2024). Students experiencing trauma-related psychological distress frequently report concentration difficulties, academic burnout, reduced motivation, diminished classroom engagement, and impaired learning performance (Talsma et al., 2021; Siena et al., 2024). Trauma exposure and poor mental health have additionally been associated with reduced academic persistence, disengagement, and increased risk of academic withdrawal (Zhai & Carney, 2024; Holmes et al., 2025).

Importantly, emotional dysregulation appears to represent a central mechanism linking trauma exposure to broader psychological and academic difficulties. Recent studies conducted in post-pandemic student populations have demonstrated associations between trauma exposure, emotional dysregulation, executive functioning difficulties, anxiety, depression, and reduced psychological well-being (Mastrokoukou et al., 2024). Furthermore, protective factors such as resilience, social support, self-compassion, and adaptive coping strategies may mitigate the negative effects of trauma on emotional and academic functioning (Akbar & Aisyawati, 2021; Mastrokoukou et al., 2024; Yao et al., 2024). Although the literature examining university student mental health has expanded substantially following the COVID-19 pandemic, evidence regarding the interconnected relationships between trauma exposure, cognitive-emotional dysregulation, psychological distress, and academic impairment remains fragmented. Existing studies have often focused on isolated mental health outcomes, such as anxiety or depression, without sufficiently integrating the cognitive and emotional mechanisms through which trauma may influence academic functioning and student well-being. Therefore, the present narrative review aims to synthesize recent evidence regarding the associations between trauma exposure, emotional dysregulation, executive functioning difficulties, psychological distress, and academic impairment among university students in the post-COVID-19 era, while also highlighting protective factors and implications for trauma-informed higher education practices.

Methodological Approach and Literature Search Strategy

This narrative review synthesized contemporary literature examining trauma exposure, cognitive-emotional dysregulation, psychological distress, and academic impairment among university students in the post-COVID-19 era. Relevant studies published between January 2021 and May 2026 were identified through targeted searches in the PubMed and Scopus electronic databases.

The search strategy was developed based on the primary concepts of the review, including trauma exposure, emotional regulation, cognitive functioning, psychological distress, academic outcomes, and university student populations. Various combinations of keywords and Boolean operators were used during the search process. The principal search terms included: "trauma," "adverse childhood experiences," "ACEs," "emotional dysregulation," "emotion regulation," "cognitive functioning," "executive functioning," "psychological distress," "academic impairment," "academic burnout," "mental health," "COVID-19," "post-COVID-19," "university students," and "college students." Priority was given to peer-reviewed empirical studies, systematic reviews, and meta-analyses published in English. Quantitative, qualitative, cross-sectional, longitudinal, and mixed-methods studies were considered relevant if they examined the relationship between trauma-related experiences and emotional, cognitive, psychological, or academic outcomes among university students.

Studies were considered eligible if they:

- involved university or college student populations;
- examined trauma exposure, adverse childhood experiences, pandemic-related stressors, or trauma-related psychological vulnerability; and
- investigated emotional regulation, cognitive or executive functioning, psychological distress, or academic functioning.

Studies focusing exclusively on severe psychiatric or neurological disorders unrelated to trauma exposure were not prioritized in the synthesis. The retrieved literature was reviewed and synthesized narratively to identify recurring themes and conceptual relationships across studies.

Emphasis was placed on evidence examining:

- trauma and psychological vulnerability,
- emotional dysregulation as a trauma-related mechanism,
- executive and cognitive functioning difficulties,
- academic impairment and student adjustment, and
- protective factors such as resilience, social support, and adaptive coping.

This thematic approach allowed for a comprehensive overview of the emerging evidence regarding trauma-related cognitive-emotional difficulties among university students in the post-COVID-19 context.

Literature

Recent evidence highlights that trauma exposure, adverse childhood experiences (ACEs), and psychological vulnerability are highly prevalent among university students and strongly associated with increased anxiety, depression, stress, emotional exhaustion, and maladaptive coping behaviors (Holmes et al., 2025; Moghimi et al., 2023). Students entering higher education face developmental, academic, and social pressures that heighten vulnerability to psychological distress, particularly among those with prior trauma histories and reduced emotional resilience (McLaughlin et al., 2020; Mastrokoukou et al., 2024).

Findings from the first COVID-19 lockdown further illustrate the severity of mental health challenges within student populations. Classification studies reported high levels of depression, anxiety, and stress symptoms (Theodoros & Konstantopoulou, 2025), while additional work documented increased social anxiety disorder and low self-esteem among university students (Sella et al., 2024). Research also demonstrated that resilience and meaning in life served as important protective factors during periods of confinement and uncertainty (Konstantopoulou et al., 2022), whereas clinical evaluations confirmed significantly elevated depressive symptoms among quarantined students (Konstantopoulou & Raikou, 2020).

COVID-19-related stressors—including social isolation, academic disruption, financial uncertainty, and fear of illness—further exacerbated emotional vulnerability and contributed to the global rise in psychological distress, sleep disturbances, and emotional exhaustion among university students (Cielo et al., 2021; Granieri et al., 2021; Batra et al., 2021; Jiménez-Villamizar et al., 2025). Students with trauma-related vulnerability appeared particularly affected, demonstrating reduced resilience, heightened emotional instability, and amplified distress in response to pandemic-related pressures (Lee et al., 2021; McLaughlin et al., 2020). A substantial body of research identifies emotional dysregulation as a key mechanism connecting trauma exposure to mental health deterioration. Trauma may disrupt emotional regulation capacities, increasing emotional reactivity, avoidance, suppression, rumination, and maladaptive coping strategies (Mora et al., 2022). Lockdown and post-pandemic studies additionally reported intensified emotional difficulties, including loneliness, irritability, emotional exhaustion, and reduced psychological well-being, particularly among students with pre-existing vulnerabilities (Granieri et al., 2021; Ozamiz-Etxebarria et al., 2025). Neuropsychological evidence further suggests that chronic stress may compromise neural systems involved in emotional control, self-regulation, and cognitive flexibility (McLaughlin et al., 2020).

These emotional disturbances frequently co-occur with impairments in executive and cognitive functioning. Trauma-exposed students commonly display attentional difficulties, working-memory limitations, cognitive inflexibility, and organizational problems (Mastrokoukou et al., 2024; Lee et al., 2021). Remote learning environments intensified cognitive load and contributed to declining concentration, motivation, and learning efficiency (Jiménez-Villamizar et al., 2023; Campos et al., 2024). Chronic stress and emotional exhaustion may further weaken executive functioning and decision-making processes (Panzeri et al., 2023). Collectively, these deficits have been associated with lower academic engagement, higher procrastination, reduced productivity, and increased academic burnout (Mora et al., 2022; Siena et al., 2024).

Psychological distress is strongly associated with academic impairment among university students. Elevated anxiety, stress, and depressive symptoms predict lower academic performance, diminished motivation, disengagement, absenteeism, and increased dropout risk (Barbosa-Camacho et al., 2022; Siena et al., 2024; Amer et al., 2023). Trauma-exposed students may experience even greater academic impairment due to the combined effects of emotional dysregulation and executive dysfunction (Talsma et al., 2021; Zhai & Carney, 2024). Nevertheless, the literature identifies several protective factors that may buffer against trauma-related and pandemic-related difficulties. Resilience has consistently been associated with improved emotional adjustment and academic functioning (Yao et al., 2024; Mastrokoukou et al., 2024). Social support from peers, family, and educational institutions may reduce loneliness and strengthen emotional regulation capacities (Hisato et al., 2023; Prowse et al., 2021). Adaptive coping strategies, self-compassion, and emotional awareness have additionally been linked to reduced dysregulation and improved academic functioning (Akbar & Aisyawati, 2021). During lockdown periods, meaning in life and resilience also emerged as important protective resources against psychological distress (Konstantopoulou et al., 2022; Ibda et al., 2022).

Given the combined psychological and academic impacts of trauma, literature emphasizes the importance of trauma-informed approaches within higher education. Such frameworks promote psychological safety, empathy, flexibility, and accessible support systems for vulnerable students (Gao et al., 2023; Holmes et al., 2025). Integrated strategies, including counseling services, academic accommodations, peer-support structures, resilience-building interventions, and digital mental health services, appear essential for supporting student well-being and academic persistence in the post-COVID-19 educational landscape (Moghimi et al., 2023; Zhai & Carney, 2024).

Discussion

The findings of this narrative review suggest that trauma exposure and adverse childhood experiences (ACEs) constitute important risk factors for psychological distress, cognitive–emotional dysregulation, and academic impairment among university students in the post-COVID-19 era. Across the reviewed studies, trauma-related vulnerability was consistently associated with increased anxiety, depression, stress, emotional exhaustion, and maladaptive coping patterns (Holmes et al., 2025; Lee et al., 2021; Moghimi et al., 2023). These difficulties appear to have intensified during the COVID-19 pandemic, which introduced prolonged social isolation, educational disruption, and heightened uncertainty among university populations (Cielo et al., 2021; Granieri et al., 2021). The reviewed evidence further supports emotional dysregulation as a central mechanism linking trauma exposure to broader psychological and academic difficulties. Trauma-related disturbances in emotional regulation have been associated with increased emotional reactivity, maladaptive coping, and reduced resilience (Lee et al., 2021; Mora et al., 2022). Neuropsychological evidence additionally suggests that chronic stress may negatively affect neural systems involved in emotional control and self-regulation (McLaughlin et al., 2020). During the pandemic period, university students demonstrated elevated levels of depression, anxiety, stress, and emotional instability, particularly during lockdown and quarantine conditions (Theodoros & Konstantopoulou, 2025; Konstantopoulou & Raikou, 2020; Sella et al., 2024).

Cognitive and executive-function difficulties also emerged as important contributors to academic impairment. Trauma and chronic stress were associated with attentional difficulties, impaired working memory, cognitive inflexibility, and reduced concentration (Mastrokoukou et al., 2024; Lee et al., 2021). Remote learning environments and academic disruption further intensified cognitive load and reduced motivation and learning efficiency (Jiménez-Villamizar et al., 2023; Campos et al., 2024). Consequently, students experiencing elevated psychological distress frequently demonstrated lower academic engagement, poorer academic performance, burnout, and increased disengagement from university studies (Barbosa-Camacho et al., 2022; Siena et al., 2024; Talsma et al., 2021).

At the same time, several protective factors appear to mitigate the negative psychological and academic effects of trauma exposure. Resilience, adaptive coping strategies, social support, and self-compassion were consistently associated with improved emotional adjustment and academic functioning (Yao et al., 2024; Akbar & Aisyawati, 2021). Studies conducted during the first lockdown further highlighted the protective role of resilience and meaning in life in reducing psychological distress (Konstantopoulou et al., 2022). Social connectedness additionally emerged as an important buffer against emotional instability and loneliness (Hisato et al., 2023; Prowse et al., 2021).

Overall, the reviewed literature highlights a consistent pattern in which trauma exposure contributes to emotional dysregulation, executive dysfunction, psychological distress, and academic impairment among university students, while the COVID-19 pandemic appears to have amplified these vulnerabilities. These findings underscore the importance of trauma-informed approaches within higher education, including accessible counseling services, resilience-building interventions, academic accommodations, and supportive educational environments capable of promoting student well-being and academic persistence (Gao et al., 2023; Holmes et al., 2025; Moghimi et al., 2023).

Conclusion

The present narrative review highlights the complex relationship between trauma exposure, cognitive–emotional dysregulation, psychological distress, and academic impairment among university students in the post-COVID-19 era. The evidence suggests that trauma and adverse childhood experiences may compromise emotional regulation, executive functioning, attention, working memory, and psychological well-being, thereby reducing students' capacity to manage academic demands effectively. The COVID-19 pandemic intensified these vulnerabilities through social isolation, educational disruption, uncertainty, and increased psychological distress. Emotional dysregulation appears to function as a central pathway through which trauma contributes to anxiety, depression, stress, academic disengagement, and reduced persistence. However, resilience, social support, adaptive coping, self-compassion, and help-seeking may buffer these effects. Universities should therefore adopt trauma-informed and cognitively oriented support systems, including accessible counseling, flexible academic accommodations, peer-support initiatives, and resilience-building interventions. Future longitudinal and intervention-based research is needed to clarify causal pathways and evaluate effective institutional responses.

Limitations

This narrative review is subject to several limitations that should be acknowledged when interpreting its findings. First, as a narrative rather than systematic review, the selection of studies may have introduced selection bias, as the included literature was not screened using standardized quality-assessment tools. Second, the reviewed studies demonstrate considerable heterogeneity in research design, measurement tools, sample characteristics, and outcome variables, making direct comparisons across studies challenging. Third, much of the evidence concerning trauma, emotional dysregulation, and executive functioning relies on self-report data, which may be influenced by recall bias or social desirability effects. Fourth, most of the available research was conducted during or shortly after the COVID-19 pandemic, a period marked by unique social and academic disruptions; therefore, the generalizability of findings to more stable educational contexts may be limited. Finally, the literature disproportionately represents Western or high-income educational settings, whereas research from low-resource or culturally diverse university environments remains comparatively underexplored. These limitations highlight the need for more systematic, longitudinal, and culturally diverse investigations.

Implications for Practice, Policy, and Higher Education

The findings of this review underscore the necessity for trauma-informed policies and practices within higher education. Universities should prioritize the development of integrated mental-health infrastructures that recognize the pervasive effects of trauma on emotional regulation, cognitive functioning, and academic performance. Trauma-informed pedagogical approaches—emphasizing psychological safety, empathy, flexibility, and predictable learning environments—can help reduce distress and promote engagement among vulnerable students. Institutions should expand access to counseling services, crisis-response mechanisms, resilience-building programs, and peer-support networks. Additionally, academic accommodations such as flexible deadlines, alternative assessment methods, and individualized learning supports may help mitigate the cognitive and executive-functioning challenges associated with trauma. Policymakers should advocate for funding and institutional frameworks that embed mental-health resources within the educational system, ensuring that psychosocial support is accessible, culturally sensitive, and sustainable. Prioritizing early identification of trauma-exposed students and implementing evidence-based interventions may enhance both mental-health outcomes and academic persistence.

Future Research Directions

Future research should employ longitudinal and mixed-methods designs to clarify how trauma exposure, emotional dysregulation, and executive-function impairments interact over time to shape academic trajectories. There is a need for more rigorous, standardized assessment tools that capture both psychological and cognitive indicators of trauma-related difficulties. Future studies should also explore the differential effects of trauma across demographic groups, including gender, socioeconomic status, cultural background, and academic discipline, to better identify at-risk populations. Experimental and intervention-based research is essential to evaluate the effectiveness of trauma-informed educational practices, resilience-training programs, digital mental-health tools, and cognitive-emotional skills development in higher education settings. Furthermore, cross-cultural research is needed to examine how trauma and coping mechanisms manifest in diverse educational contexts, particularly in low-resource environments. Finally, research should investigate how post-pandemic shifts in academic delivery, such as hybrid learning, digital platforms, and remote assessment, interact with trauma-related vulnerabilities and protective factors. Such work will help guide the development of tailored interventions that promote long-term academic and psychological well-being among university students.

References

1. Holmes, M. R., Korsch-Williams, A. E., & King-White, D. (2025). Implementing trauma-informed care in higher education. *Metropolitan Universities, 36*(2). DOI: https://doi.org/10.18060/28683
2. Gao, H., Chen, P., & Yao, L. (2023). Trauma-informed practices in higher education: A comprehensive literature review. *International Journal of Higher Education, 12*(6), 149–168. DOI: https://doi.org/10.5430/ijhe.v12n6p149
3. Moghimi, E., Stephenson, C., Gutiérrez, G., Jagayat, J., Layzell, G., Patel, C., McCart, A., Gibney, C., Langstaff, C., Ayonrinde, O., Khalid-Khan, S., Milev, R., Snelgrove-Clarke, E., Soares, C. N., Omrani, M., & Alavi, N. (2023). Mental health challenges, treatment experiences, and care needs of post-secondary students: A cross-sectional mixed-methods study. *BMC Public Health, 23*(1), 655. DOI: https://doi.org/10.1186/s12889-023-15452-x
4. McLaughlin, K. A., Colich, N. L., Rodman, A. M., & Weissman, D. G. (2020). Mechanisms linking childhood trauma exposure and psychopathology: A transdiagnostic model of risk and resilience. *BMC Medicine*, 18, 96. DOI: https://doi.org/10.1186/s12916-020-01561-6
5. Cielo, F., Ulberg, R., & Di Giacomo, D. (2021). Psychological impact of the COVID-19 outbreak on mental health outcomes among youth: A rapid narrative review. *International Journal of Environmental Research and Public Health, 18*(11), 6067. DOI: https://doi.org/10.3390/ijerph18116067
6. Granieri, A., Franzoi, I. G., & Chung, M. C. (2021). Editorial: Psychological distress among university students. *Frontiers in Psychology*, 12, 647940. DOI: https://doi.org/10.3389/fpsyg.2021.647940
7. Batra, K., Sharma, M., Batra, R., Singh, T., & Schvaneveldt, N. (2021). Assessing the psychological impact of COVID-19 among college students: An evidence of 15 countries. *Healthcare, 9*(2), 222. DOI: https://doi.org/10.3390/healthcare9020222
8. Jiménez-Villamizar, M. P., Comendador, L., Sanabria-Mazo, J. P., Canedo, C. M., Losilla, J.-M., Muro, A., & Sanz, A. (2025). Mental health in the adaptation processes of university students during COVID-19: A systematic review and meta-analysis. PsyArXiv. DOI: https://doi.org/10.1101/2025.03.14.25323978
9. Lee, J. M., Jeong, H. J., & Kim, S. (2021). Stress, anxiety, and depression among undergraduate students during COVID-19 and their use of mental health services. *Innovative Higher Education, 46*(5), 519–538. DOI: https://doi.org/10.1007/s10755-021-09552-y
10. Wang, X., Hegde, S., Son, C., Keller, B., Smith, A., & Sasangohar, F. (2020). Investigating mental health of US college students during COVID-19: Cross-sectional survey study. *Journal of Medical Internet Research, 22*(9), e22817. DOI: https://doi.org/10.2196/22817
11. Siena, L. M., Mussetto, I., Renzi, E., Baccolini, V., Migliara, G., Sciurti, A., Covelli, A., Di Vito, C., Marzuillo, C., Villari, P., & Massimi, A. (2024). Decline in academic performance and mental health during the COVID-19 pandemic: A cross-sectional survey among university students. *Frontiers in Public Health*, 12. DOI: https://doi.org/10.3389/fpubh.2024.1408191
12. Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation. *Journal of Psychopathology and Behavioral Assessment, 26*(1), 41–54. DOI: https://doi.org/10.1007/s10862-008-9102-4

13. Mora, S. C., Bastianoni, C., Cavanna, D., & Bizzi, F. (2022). Emerging adults facing the COVID-19 pandemic: Emotion dysregulation, mentalizing, and psychological symptoms. *Current Psychology, 43*(14), 13083–13088. https://doi.org/10.1007/s12144-022-03322-5
14. Talsma, K., Robertson, K., Thomas, C., & Norris, K. (2021). COVID-19 beliefs, self-efficacy and academic performance in first-year university students: Cohort comparison and mediation analysis. Frontiers in Psychology, 12, 643408. DOI: https://doi.org/10.3389/fpsyg.2021.643408
15. Zhai, Y., & Carney, J. V. (2024). The role of mental health and protective factors in student academic persistence and retention during a global crisis. Cambridge Prisms: Global Mental Health, 11, e15. DOI: https://doi.org/10.1017/gmh.2024.12
16. Akbar, Z., & Aisyawati, M. S. (2021). Coping strategy, social support, and psychological distress among university students in Jakarta, Indonesia during the COVID-19 pandemic. Frontiers in Psychology, 12, 694122. DOI: https://doi.org/10.3389/fpsyg.2021.694122
17. Yao, G., Jamal, A., Abdullah, M. Z., Dzulkipli, M. R., & Jamil, N. (2024). Examining the psychosocial factors of mental health wellbeing among medical university students: Gender-based analyses. Information Management and Business Review, 16, 787–798. DOI: https://doi.org/10.22610/imbr.v16i3(i)s.4108
18. Theodoros, I., & Konstantopoulou, G. (2025). Classification for symptoms of depression, anxiety, and stress during lockdown. European Journal of Open Education and E-learning Studies. DOI: https://doi.org/10.46827/ejoe.v10i1.5898
19. Sella, E., Adamopoulou, A., Georgiou, E.-Z., & Konstantopoulou, G. (2024). Social anxiety disorder and low self-esteem among university students. *European Journal of Public Health Studies, 7*(3). DOI: https://doi.org/10.46827/ejphs.v7i3.186
20. Konstantopoulou, G., Giannakopoulou, O., Karamesinis, P., Mavroeidi, E., & Mentis, M. (2022). Mental resilience and meaning of life in students during the first COVID-19 lockdown. *International Journal of Science Academic Research, 3*(9), 4397–4401.
21. Konstantopoulou, G., & Raikou, N. (2020). Clinical evaluation of depression in university students during quarantine. *European Journal of Public Health Studies, 3*(1), 1–8. DOI: https://doi.org/10.46827/ejphs.v3i1.65
22. Ozamiz-Etxebarria, N., Mondragón, N. I., & Tsybuliak, N. (2025). Strengthening mental health among university students. Frontiers in Psychology, 16. DOI: https://doi.org/10.3389/fpsyg.2025.1689173
23. Jiménez-Villamizar, M. P., Muro, A., Navarro, J. B., Carmona-Cervelló, M., Cladellas, R., Feliu-Soler, A., Reche-Camba, E., López, D., Méndez-Ulrich, J. L., Olid, C. S., & Sanz, A. (2023). Predictive factors of the psychological impact of the COVID-19 pandemic on university students: A study in six Ibero-American countries. *Ansiedad y Estrés, 29*(3), 153–162. DOI: https://doi.org/10.5093/anyes2023a19
24. Campos, J. Á. D. B., Campos, L. A., Azevedo, M. A. R., Martins, B. G., Silva, B. N. S., & Marôco, J. (2024). Mental health in times of pandemic from the perspective of professors and students. Frontiers in Education, 9, 1353756. DOI: https://doi.org/10.3389/feduc.2024.1353756
25. Barbosa-Camacho, F. J., Romero-Limón, O. M., Ibarrola-Peña, J. C., Almanza-Mena, Y. L., Pintor-Belmontes, K. J., Sánchez-López, V. A., Chejfec-Ciociano, J. M., Guzmán-Ramírez, B. G., Sapién-Fernández, J. H., Guzmán-Ruvalcaba, M. J., Nájar-Hinojosa, R., Ochoa-Rodriguez, I., Cueto-Valadez, T. A., Cueto-Valadez, A. E., Fuentes-Orozco, C., Cortés-Flores, A. O., Miranda-Ackerman, R. C., Cervantes-Cardona, G. A., Cervantes-Guevara, G., & González-Ojeda, A. (2022). Depression, anxiety, and academic performance in COVID-19: A cross-sectional study. *BMC Psychiatry, 22*(1), 443. DOI: https://doi.org/10.1186/s12888-022-04062-3
26. Amer, F., López, T. G., Gil-Conesa, M., Carlos, S., Ariño, A. H., Carmona-Torre, F., Martínez-González, M. Á., & Fernández-Montero, A. (2023). Association between COVID-19 and outstanding academic performance at a Spanish university. *Archives of Public Health, 81*(1), 213. DOI: https://doi.org/10.1186/s13690-023-01225-w
27. Hisato, T., Nandy, S., Monga, E. M., Sytek, P., Abouzid, M., & Ahmed, A. A. (2023). Psychological distress among healthcare students in Poland from COVID-19 to war on Ukraine: A cross-sectional exploratory study. Frontiers in Public Health, 11. DOI: https://doi.org/10.3389/fpubh.2023.1186442
28. Prowse, R., Sherratt, F., Abizaid, A., Gabrys, R. L., Hellemans, K. G. C., Patterson, Z. R., & McQuaid, R. J. (2021). Coping with the COVID-19 pandemic: Examining gender differences in stress and mental health among university students. *Frontiers in Psychiatry*, 12, 650759. DOI: https://doi.org/10.3389/fpsyt.2021.650759
29. Ibda, H., Wulandari, T. S., Abdillah, A., Hastuti, A. P., & Mahsun, M. (2022). Student academic stress during the COVID-19 pandemic: A systematic literature review. *International Journal of Public Health Science, 12*(1), 286. DOI: https://doi.org/10.11591/ijphs.v12i1.21983
30. Panzeri, A., Devita, M., Rosa, E. D., Bottesi, G., Brundisini, V., Guarrera, C., Ravelli, A., Ponza, I., Cattelan, A. M., Volpe, B. T., Iannizzi, P., Ghisi, M., Schiavo, R., & Mapelli, D. (2023). Trauma shaping the psychopathological correlates of patients with long COVID: A 6-month longitudinal study. Psychiatry Research, 330, 115609. DOI: https://doi.org/10.1016/j.psychres.2023.115609