The Impact of Mental Health on Students' Academic Performance

Rashid Jabbarov[1], Nilufar Azimzadeh[2], Gular Namazova[3], Nurana Abbasova[4], Chapay Guliyev[5]

[1]*Doctor of psychology, Professor,Baku State University, Odlar Yurdu Universty, Baku, Azerbaijan*
E-mail: rashid.cabbarov@mail.ru, ORCID: https://orcid.org/0000-0002-0623-2772
[2]*Psychology student of SABAH Groups Baku State University*
Baku, Azerbaijan
E-mail: Azimzade1141@gmail.com, ORCID: https://orcid.org/0009-0001-4484-5334
[3]*Psychology student of SABAH Groups Baku State University*
Baku, Azerbaijan
E-mail: glrnamazova2005@gmail.com ORCID: https://orcid.org/0009-0004-4699-487X
[4]*Psychology student of SABAH Groups Baku State University*
Baku, Azerbaijan
E-mail: nuranabbsova.05@gmail.com,ORCID: https://orcid.org/0009-0009-2175-7153
[5]*PhD.associate professor, Nakhchivan State University, Nakhchivan, Azerbaijan*
E-mail: chapay1981.cq@gmail.com
ORCID: https://orcid.org/0009-0001-8884-363X

KEYWORDS
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ABSTRACT
The article is dedicated to examining the relationship between mental health and academic performance in students. The research utilizes the Diagnostic Self-Assessment Methodology for Psychological Conditions (based on H. Eysenck) and the Diagnostic Methodology for Achievement Motivation in Personality (by T. Ehlers). The study was conducted on 130 undergraduate students. The results show that there is a strong correlation between students' mental health and their levels of anxiety, frustration, rigidity and learning motivation, but no significant relationship with academic performance.However, based on the "Diagnostic Methodology for Personality in Achievement Motivation" survey (by T. Ehlers) conducted by the author, a strong correlation was identified between students' motivation for learning and their mental health. (r=0.864, p=0.005). It should also be noted that there is a significant correlation between gender differences among students, with the levels of anxiety, frustration, aggression and rigidity (these are the factors affecting mental health) and their academic success (p=0.01; for female students, r=0.206*) produces a weak correlation. , r=0.208*, r=0.168**, r=0.188* and for male students, r=-0.206*, r=-0.208*, r=-0.168**, r=-0.188*). According to the results, the mental health of male students has a positive correlation ((p<0.05) (r=0.373*, r=0.336*)) with their academic performance, while for female students there is a negative correlation ((p<0.05) (r=-0.373*, r=-0.336*)). This suggests that as male students' mental health improves, their academic success rates (aggression (r=-0.206*), frustration (r=-0.208*), anxiety (r=-0.168*) and rigidity levels increase. (r=-0.188*) shows weak negative correlation). In contrast, among female students, academic success was found to be associated with slightly higher levels of aggression (r=0.206*), anxiety (r=0.208*), frustration (r=0.168*) and rigidity (r=0.188*).).

Introduction

In today's world, safeguarding mental health has become a crucial global issue. In 2019, the World Health Organization reported that the number of individuals with mental health problems exceeded 901 million, and the COVID-19 pandemic has further contributed to the rise in cases of depression and anxiety disorders. The number of individuals facing mental health challenges continues to grow each day. During the pandemic, the prevalence of depression, anxiety disorders, and other mental health issues became more widespread (WHO, 2019).

Protecting mental health involves not only addressing potential pathological conditions or disorders in individuals but also enhancing their capacity to realize their potential, self-actualize, adapt to stressors, function effectively, and contribute

meaningfully to their work and surroundings. Individuals who experience chronic mental health and well-being issues often struggle with self-belief, realistic thinking, and self-actualization as individuals (Aliyeva et.al, 2021; Jabbarov, 2020).

The impact of mental health on personal development and self-actualization is evident not only in education but also in various professional and other life domains. Improved mental health and well-being among students can contribute to their future career development, enabling them to thrive in professions where they feel comfortable, stable, and psychologically secure, thus making positive contributions to themselves and society (Jabbarov, 2020). Despite extensive research, publications, and dissertations on the concept of mental health, paradoxically, a clear definition of mental health remains elusive. This term is so widely used that it sometimes raises questions about whether certain statements genuinely pertain to mental health or related concepts.

The primary objective of this article is to investigate how mental health can act as an obstacle in students' educational and personal development, with a particular focus on analyzing the impact of students' mental health on their academic success and quality of education.

Literature Review

It is well-established that mental health is influenced by various factors. According to the World Health Organization's 2013 report, mental health and well-being enable individuals to cope with life's stresses, realize their abilities, learn effectively, work productively, and contribute to their communities (WHO, 2013). Thus, a person is considered to be in a good state of mental health when they can fulfill social roles, actualize their abilities, mitigate stress factors and other negative influences, and remain free from psychological disorders.

Just as mental health affects important areas of life, it also impacts education and academic achievement. An unstable mental health state can negatively affect students emotionally and mentally, weakening their academic performance. Studies show that since education is foundational for social and personal development, it is crucial to examine the relationship between students' mental health and academic performance .(Baker et al., 2021) Research continues to demonstrate that mental health issues have both direct and indirect effects on students' concentration, motivation, learning abilities, and overall academic success (Seligman et al., 2018).

It should be noted that among the population groups at risk of mental health issues, young people occupy a distinctive position.Research in the field of mental health shows that young people are particularly vulnerable to a range of unique stressors and problems that can significantly affect their psychological well-being. (House et al., 2020). Research shows that one of the most significant factors influencing students' mental health is the period of adjustment to higher education. New demands, academic expectations, and the social environment can become a source of stress, especially for students who are just beginning their academic journey. Research also indicates that young people's concerns with meeting societal expectations—such as academic achievements and career progression—make them more susceptible to anxiety and depression (Jangmo et al., 2019). Additionally, modern technology and shifts in social dynamics may negatively impact youth mental health.The widespread influence of social media, social pressure to achieve success, and the continuous use of digital devices can contribute to feelings of isolation, social dissatisfaction, and, as

a result, higher levels of stress. (Lee et al., 2023 ; Panayiotou et al., 2019). Overall, a number of factors make young people one of the most vulnerable groups to mental health problems. In this regard, considering the importance of successful adaptation and learning in the student environment, it becomes crucial to recognize these factors and incorporate them into research and practical interventions.(Camshaid et al., 2023 ; Nuryana et al. , 2023). İndividuals with limited social connections or living in isolation may be at an increased risk for mental health problems. Those facing low income, homelessness, migration, or economic hardships may experience higher levels of stress and depression. Additionally, individuals dealing with chronic illnesses such as diabetes, cardiovascular diseases, or cancer may face additional burdens that impact their mental health.(Karyotaki et al., 2020 ; Pascoe et al., 2020). Notably, studies examining the relationship between academic achievement and mental health among students primarily focus on adolescents. A meta-analysis of 17 original studies found that early school dropout is associated with substance abuse, depression, and externalizing problems (Esch et al., 2014). Furthermore, in adolescence, academic performance has been linked to suicide in males, though not in females (Gunnell et al., 2011). Although several studies have explored the impact of academic performance on mental health in student populations, most have focused predominantly on depression (Deighton et al., 2018).

Effective preventive measures are available to address mental health disorders among students (Davis et al., 2021). These studies underscore that mental disorders are a significant global public health issue. As of 2020, depression, one of the most prevalent conditions, affects over 264 million people, while anxiety disorders, including generalized anxiety disorder and panic disorder, impact more than 275 million individuals (Abi-Jaoudevədigərləri, 2020 ; Pengpid& Peltzer, 2020). These issues are also widespread among young people, particularly within the context of educational adjustment and societal expectations. Global efforts aim to understand and treat these disorders through educational programs, psychotherapy, and accessible medical care.

Methodology

The primary aim of this study is to explore the relationship between students' mental health, particularly their levels of anxiety, aggression, frustration, and emotional rigidity, and their academic performance. For this purpose,academic performance data for the 2022-2023 academic year were collected, focusing on students' average grades and rankings, with their consent.

To ensure easy access to academic data and to maintain confidentiality, the research was conducted in an anonymized format. The initial data related to academic performance were derived from examination scores and other assessment results obtained during the course of the academic year. Additionally, the study explored the role of learning motivation, an important factor influencing academic productivity, and its effect on academic outcomes. Academic performance evaluations were carried out annually, allowing for the identification of patterns and trends in academic productivity and enabling comparative analysis across various student groups.

This study utilized multiple methods to assess the two key variables under investigation: mental health (with particular attention to anxiety, aggression, frustration, and emotional rigidity) and academic motivation. A total of 130 students (71 female, 59 male), aged between 18 and 22, from different faculties participated in

the study, with 98% of participants demonstrating active engagement in their academic activities. Two main instruments were employed: the “Psychological States Diagnostic Self-Assessment” (Eysenck, 1975) and the “Personality Diagnostic Methodology in Achievement Motivation” (Ellers, 2014).

The "Psychological States Diagnostic Self-Assessment" was used in its adapted version for this study. The instrument consists of 40 items divided into four scales, each designed to assess different dimensions of mental health: anxiety, aggression, frustration, and emotional rigidity. This test provides both individual scores for each of these dimensions and a total score reflecting overall mental health. Specifically, items 1-10 measure anxiety, items 11-20 assess frustration, items 21-30 evaluate aggression, and items 31-40 measure emotional rigidity. Each item offers three response options: "completely agree" (2 points), "partially agree" (1 point), and "do not agree" (0 points). Respondents select only one option per item. The scores are aggregated both as a total score and for each individual scale (with ranges 1-10, 11-20, 21-30, and 31-40). A total score between 1 and 14 indicates high mental stability, a score between 15 and 25 suggests moderate stability, and a score between 26 and 40 reflects poor mental health, characterized by elevated levels of anxiety, aggression, frustration, and rigidity. For each scale, scores between 0 and 7 are considered low, scores between 8 and 14 are normal, and scores between 15 and 20 are high.

In addition to assessing mental health, the study examined students' learning motivation using both informal methods, such as surveys and interviews, and the “Personality Diagnostic Methodology in Achievement Motivation” by Ellers. This instrument consists of 20 items with binary response options ("yes" = 1 point, "no" = 0 points), yielding a total score out of 20. Total scores between 1 and 10 indicate low motivation, scores between 11 and 15 suggest moderate motivation, and scores between 16 and 20 indicate high motivation.

The empirical data were statistically analyzed using Spearman’s rank correlation coefficient. Quantitative data processing was conducted using SPSS Statistics 22 software.

Results

There are several influential factors that currently affect individuals' mental health and mental stability, leading to the deterioration and degradation of their psychological well-being. In such cases, students' professional competence, particularly the quality of their learning activities, declines. This study investigates the impact of individuals' mental health on their academic productivity. It is noted that aggression, frustration, rigidity, and anxiety leads to higher baseline levels of arousal and stress, which in turn may contribute to the onset and development of depression and other mental health issues.

Thus, the interaction between these four factors was examined, and students' mental health was assessed in relation to them. The correlation between students' mental health and academic performance was measured using the Spearman correlation test, with results shown in Table 1:

Table 1. Correlation between the Four Factors Affecting Mental Health Levels and Academic Performance in Students:

The state of Mental Health Level	Spearman Correlation test
Academic Performance (Grades)	0.088**

The correlation is statistically significant at the **0.01 level (two-tailed).

Table 1 presents the results of the correlation test between students' academic variable and mental health variable. The correlation coefficient between students' academic performance and mental health variable is 0.88 (r = 0.88), with a p-value of 0.05, indicating a significant correlation ($p < 0.05$). Thus, this result suggests that there is no direct relationship between students' mental health and their academic performance. However, upon further examination, a strong correlation between students' mental health and their learning motivation was identified. The relationship between students' mental health and their motivation for learning is shown in **Table 2**:

Table 2. Correlation of Students' Mental Health Levels, Obtained from the Diagnostic Self-Assessment Method, with Other Variables

The state of Mental Health Level	Spearman Correlation Test
Students' Learning Motivation	0.864**
Students' Age	-0.064*

As presented in Table 2, the correlation analysis between students' learning motivation and their overall state of mental health reveals a significant positive correlation, with a correlation coefficient of 0.864, which is statistically significant at the p-value of 0.01 ($p < 0.05$). This suggests a strong relationship between these variables. Furthermore, the statistical findings indicate that there is virtually no correlation between students' age (the study sample was comprised of students aged 18–21) and their mental health status, as evidenced by the correlation coefficient of r = -0.064*).

Additionally, the analysis explored the correlation between mental health and the levels of anxiety, aggression, frustration, and rigidity, which are considered key factors affecting mental well-being, alongside academic performance and learning motivation. The results demonstrate statistically significant correlations at the p-value of 0.01 ($p < 0.05$). It is important to highlight that, as shown in Table 3, not only are the relationships between mental health, learning motivation, and academic performance presented, but also the correlations between mental health and the levels of anxiety, aggression, frustration, and rigidity. These results are detailed in Table 3.

Table 3. The relationship between mental health, anxiety, aggression, frustration, rigidity, and students' academic motivation.

The state of mental health	Spearman Correlation test
Anxiety	-0.533**
Frustration	-0.549**
Agression	-.0640**
Rigidity	-.0728**
Academic Motivation	0.864**
Academic Performance (Grades)	0.088**

** The correlation is significant at the 0.01 level (2-tailed).

Based on the results, it is evident that students' mental health status exhibits a negative correlation with their levels of anxiety, frustration, aggression, and rigidity. The results of the correlation analysis indicate correlation coefficients of -(r=-0.533, r=-0.549, r=-0.640, r=-0.728) with a significance level of $p<0.01$, confirming a statistically significant inverse relationship ($p<0.05$). These findings suggest thatthe higher levels of rigidity and aggression, along with the moderate correlation between frustration and anxiety in mental health, confirm statistically that as students' levels of frustration, anxiety, aggression, and rigidity (particularly aggression and rigidity) increase, their mental health deteriorates. This can serve as a catalyst for the emergence and development of more significant mental health issues and disorders in the future. This statistically supports the notion that as anxiety, aggression, frustration, and rigidity levels (particularly aggression and rigidity) rise, students' mental health status weakens. This weakening of mental health may function as a catalyst for the development of more severe psychological disorders and mental health issues in the future.

Additionally, Table 4 illustrates the relationship between students' motivation for learning and the aforementioned psychological factors, as well as academic performance (grades). The results of the correlation analysis between learning motivation and the levels of anxiety, frustration, aggression, and rigidity demonstrate correlation coefficients of (r=0.375, r=-0.375, r=-0.426, r=-0.426), with a significance level of $p<0.01$, indicating a moderate to weak negative correlation between these variables. Therefore, based on the statistical analysis, it can be concluded that the escalation of anxiety, frustration, aggression, and rigidity levels among students constitutes a significant factor contributing to a decrease in their learning motivation. Furthermore, based on the data presented in the table, no direct correlation was identified between academic performance (grades) and learning motivation. The correlation coefficient between these two variables is near zero (r=-0.092, $p<0.05$), suggesting an almost negligible correlation between them.

Table 4: The relationship between students' academic motivation and their mental health, anxiety, frustration, aggression, and rigidity levels.

Academic motivation	Spearman Correlation test
Anxiety	-0.375**
Frustration	-0.375**
Agression	-.0426**
Rigidity	-.426**
The state of mental health	0.864**
Academic Performance (Grades)	-0.092*

** Significant at the 0.01 level * significant at the 0.05level.

It has been emphasized that, based on the statistical analysis of the research and the data obtained, the gender dimorphism of the participants is associated with their mental health status, levels of aggression, anxiety, frustration, and rigidity, as well as academic performance (grades) and learning motivation. These relationships are presented in Table 5:

Table 5. The Relationship Between Gender dimorphism (the distribution of female and male participants) and individuals' learning motivation, academic performances (grades) , mental health status, anxiety, frustration, aggression, and rigidity levels.

Gender-dependent Variables	Spearman Correlation Between Female Gender and Variables	Spearman Correlation Between Male Gender and Variables
Anxiety	0.206*	-0.206*
Frustration	0.208*	-0.208*
Agression	0.168*	-0.168*
Rigidity	0.188*	-0.188*
Academic motivation	-0.261**	0.261**
Academic performance (Grade)	-0.373*	0.373*
Overall Mental Health	-0.336 *	0.336*

** Significant at the 0.01 level * significant at the 0.05level.

Based on the statistical analysis of the variables presented in Table 5, it can be noted that the results of female students are negatively correlated with their learning motivation, whereas the results of male students show a positive correlation (r = -0.261 and r = 0.261). However, the relatively low correlation coefficients indicate weak relationships. Additionally, female students' mental health is negatively and

weakly correlated with their anxiety, frustration, aggression, and rigidity levels, whereas these levels show a positive and weak correlation ($r = 0.336$, $r = 0.206$, $r = 0.208$, $r = 0.168$, $r = 0.188$). This suggests that the increase in learning motivation among female students corresponds with an increase in anxiety, aggression, frustration, and rigidity levels, potentially leading to a disruption or weakening of their mental health stability. In contrast, male students exhibit the opposite pattern: the results of male students are positively correlated with their mental health ($r = 0.336$), and negatively correlated with their anxiety, frustration, aggression, and rigidity levels ($r = -0.336$, $r = -0.206$, $r = -0.208$, $r = -0.168$, $r = -0.188$).It should also be noted that, based on overall statistical results, female students have lower learning motivation compared to their male counterparts, and the positive, strong correlation between learning motivation and mental health ($p < 0.05$, $r = 0.864$) suggests that female students' mental health is weaker or more unstable compared to males. On the other hand, male students show higher levels of learning motivation and, correspondingly, more stable and higher mental health, as evidenced by the study. Furthermore, according to the data in the table, there is a weak positive correlation ($p < 0.05$, $r = 0.373$) between the academic grades of female students, whereas male students show a weak negative correlation ($p < 0.05$, $r = -0.373$). Despite the statistical significance ($p < 0.05$ and $p < 0.01$), the low correlation coefficients suggest that the impact of gender dimorphism on learning motivation and mental health is considered insignificant.

In conclusion, it can be stated that although there is no direct correlation between students' academic grades and their mental health, their learning motivation is positively correlated with mental health, and anxiety, aggression, frustration, and rigidity levels have negative correlations with mental health. The effects of gender dimorphism on mental health and the four factors influencing it, as well as academic performance (grades) and learning motivation, are insignificant. While gender dimorphism exhibits weak positive correlation in males and weak negative correlation in females, the statistical significance of these effects does not indicate a strong impact on the outcome variables, and thus the effect can be considered marginal.

Discussion and Conclusion

The results of this study demonstrate that there is no correlation between academic performance (grades) and mental health; however, a significant positive correlation exists between learning motivation and mental health. This is supported by the data processing results, where the correlation coefficient value is 0.864 and the p-value is significant at 0.01 ($p < 0.01$). This can be explained by Carol Dweck's Mindset Theory, which suggests that individuals with high levels of motivation in educational activities are more likely to achieve higher levels of well-being and mental health through learning (Dweck, 2006). According to Dweck's theory, individuals with a growth mindset tend to be more resilient in the face of challenges and exhibit higher levels of well-being. She emphasizes that individuals with a growth mindset are more open to learning and development opportunities, which positively impacts their mental health (Dweck, 2006).

Another perspective explaining the relationship between mental health and learning motivation is from the standpoint of self-actualization: According to Rashid Jabbarov's numerous studies, self-actualization helps an individual align with their inner desires and achieve life goals, thereby supporting their psychological well-being.

Therefore, individuals with a high level of self-actualization tend to believe more in their abilities and think more independently, leading them to use more creative and innovative approaches in education. This, in turn, contributes to their academic success. In contrast, individuals with low levels of self-actualization tend to be more inclined toward conventional thinking and less independent, which negatively impacts their creativity in education and leads to relatively lower academic success (Jabbarov, 2020).Thus, if an individual targets success in education as a means of self-actualization and is able to achieve it, they simultaneously attain psychological stability and a higher level of well-being. Individuals who self-actualize in education, meeting their psychological needs, are likely to be in a more relaxed and healthier psychological state. For instance, Martin Seligman's (2018) work in positive psychology supports this approach. Seligman notes that individuals who set meaningful goals and adopt an optimistic approach have a significant positive impact on their well-being and mental health: Overall personal development (including academic success) enhances psychological well-being and raises mental health levels (Seligman, 2018). In this study, no correlation was found between the academic performance of participants and their mental health levels. This indicates that students may achieve high academic performance even without high learning motivation. According to Jerome Bruner (1966), learning is more about the student's engagement with meaningful and experiential knowledge, which may not always be reflected in test scores (Bruner, 1966). According to this view, students with high learning motivation tend to focus more on deep understanding and enjoyment of the learning process. However, academic tests may place less emphasis on deep understanding and more on correctly solving the test.

According to Dweck (2006), the standard assessment system may not reflect individuals' true learning motivation and interest, as it is more focused on success or failure labels (Rury and Rice, 2017). Alfie Kohn notes that students under pressure have diminished intrinsic motivation, which causes them to drift away from the true purpose of the learning process. He suggests that an education system driven by grades pushes students toward external motivation, thereby reducing their genuine interest in learning (Kohn, 1993). Seligman (2002) discusses how stress, pressure, and situational factors can negatively affect academic productivity. He mentions that even with high intrinsic motivation, psychological factors can have a detrimental impact on performance, which is reflected in grades (Seligman, 2002).Therefore, in certain stressful and psychologically tense situations, even strong learning motivation may not result in high academic outcomes.

Reference

Aliyeva K., Aliyeva T., Jabbarov R., Mammadli İ. (2021). Students'values and their Mental Health During Pandemic. Propósitos y Representaciones . 9, 3:1183 ISSN 2307-7999 Current context of education and psychology in Europe and Asia e-ISSN 2310-4635 http://dx.doi.org/10.20511/pyr2021.v9nSPE3.1183

Abi-Jaoude E., Naylor K.T. , Pignatiello A. (2020). Smartphones, social media use and youth mental health.CMAJ: *Canadian Medical Association Journal*, 192 :6: E136-E141, 10.1503/cmaj.190434

Bruner, J. S. (1966). *Toward a theory of instruction.* Harvard University Press.

Deighton,J., Tymms, P., Vostanis, P., Belsky, J., Fonagy, P., Brown, A., Wolpert, M.(2013). The development of a school-based measure of child mental

health. *Journal of Psychoeducational Assessment*, 31, 247–257. https://doi.org/10.1177/0734282912465570

Davis C.R. , Grooms J., Ortega A, Rubalcaba J.A.A. , Vargas E. (2021).Distance learning and parental mental health during COVID-19.*Educational Researcher*, 50 (1) (2021), pp. 61-64, 10.3102/0013189X2097880

Dweck, C. S. (2006). *Mindset: The new psychology of success.* Random House.

Esch P, Bocquet V, Pull C, Couffignal S, Lehnert T, Graas M, Fond-Harmant L, Ansseau M. (2014).The downward spiral of mental disorders and educational attainment: a systematic review on early school leaving. *BMC Psychiatry.* 27(14):237. doi:10.1186/s12888-014-0237-4 .

Gunnell D, Löfving S, Gustafsson JE, Allebeck P.(2011) School performance and risk of suicide in early adulthood: follow-up of two national cohorts of Swedish schoolchildren. *J Affect Disord*. 131(1–3):104–112. doi: 10.1016/j.jad.2011.01.002

House A., Neal C., Kolb J.(2020).Supporting the mental health needs of first generation college students. *Journal of College Student Psychotherapy*, 34 (2) 157-167, 10.1080/87568225.2019.1578940.

Jangmo A., Stålhandske A., Chang Z., Chen Q., Almqvist C., Feldman İ., Larsson H. (2019). Attention-deficit/hyperactivity disorder, school performance, and effect of medication *Journal of the American Academy of Child & Adolescent Psychiatry*, 58:4: 423-432, 10.1016/j.jaac.2018.11.014 .

Jamshaid S., Bahadar N., Jamshed K., Rashid M., Imran M. Afzal, Tian L., Umar M., Feng X., Khan I., Zong M.(2023).Pre- and post-pandemic (COVID-19) mental health of international students: Data from a longitudinal study .*Psychology Research and Behavior Management*, 16: 431-446, 10.2147/PRBM.S395035

Jabbarov Rashid Vakil. (2020). Mechanısms Of Socıo-Psychologıcal Adaptatıon Of Refugees. *Journal of Interdisciplinary Debates*, *1*(01). https://doi.org/10.29327/217379.1.1-3

Kohn, A. (1993). *Punished by rewards: The trouble with gold stars, incentive plans, A's, praise, and other bribes.* Houghton, Mifflin and Company**.**

Karyotaki E., Cuijpers P., Albor Y., Alonso J., Auerbach P., Bantjes J., Lee S.(2020). Sources of stress and their associations with mental disorders among college students: Results of the world health organization world mental health surveys international college student initiative. *Frontiers in Psychology*, 11: 1759, 10.3389/fpsyg.2020.0175

Lee Y., Blebea J., Janssen F, Domoff E.(2023). The impact of smartphone and social media use on adolescent sleep quality and mental health during the COVID-19 pandemic. *Human Behavior and Emerging Technologies*, Article 3277040, 10.1155/2023/3277040

Nuryana Z., Xu W. , Kurniawan L., Sutanti N., Makruf A. , I. Nurcahyati (2023). Student stress and mental health during online learning: Potential for post-COVID-19 school curriculum development.Comprehensive P*sychoneuroendocrinology*, 14 Article 100184, 10.1016/j.cpnec.2023.100184

Panayiotou M., Humphrey N., Wigelsworth M. (2019).An empirical basis for linking social and emotional learning to academic performance.*Contemporary Educational Psychology*, 56 : 193-204, 10.1016/j.cedpsych.2019.01.009

Pascoe M, Hetrick S., Parker A.(2020).The impact of stress on students in secondary school and higher education.*International Journal of Adolescence and Youth*, 25 :1:104-112, 10.1080/02673843.2019.1596823

Pengpid S., Peltzer K.(2020).Associations of physical partner violence and sexual violence victimization on health risk behaviours and mental health among university students from 25 countries. *BMC Public Health*, 20:1:1-10, 10.1186/s12889-020-09064

Rury J, Rice S.(2017). Dewey on cıvıl rıghts, testıng, ınterest, and dıscıplıne: democracy and educatıon ın perspectıve. T*he journal of the gilded age and progressive era*.16(4):488-499.doi:10.1017/s1537781417000354

Seligman, M. (2018). PERMA and the building blocks of well-being. *The Journal of Positive Psychology, 13*(4), 333–335. https://doi.org/10.1080/17439760.2018.1437466

World health statistics 2013.16 May 2013 | Global report. https://www.who.int/publications/i/item/9789241564588

World health statistics 2019: monitoring health for the SDGs, sustainable development goals21 May 2019, Publicationhttps://www.who.int/publications/i/item/9789241565707