

Mental Health and Academic Excellence: A Bidirectional and Consequential Interrelationship

Amresh Shrivastava¹, Avinash De Sousa²

¹Professor Emeritus of Psychiatry, Western University, London, Ontario, Canada

²Consultant Psychiatrist & Founder Trustee, Desousa Foundation, Mumbai

Corresponding Author: Avinash De Sousa

E-mail – avinashdes888@gmail.com

ABSTRACT

Mental health is increasingly recognized as a critical foundation for academic excellence. The pressures of academic life can significantly impact students' mental well-being, and in turn, mental health challenges such as anxiety, depression, and stress can impede cognitive function, attention, and motivation, thus affecting academic performance. This interplay creates a cyclical relationship where poor mental health undermines academic success, and academic struggles exacerbate mental health issues. The studies shows neurobiological, psychological, social, and cultural dimensions of this dynamic, integrating evidence from neuroscience, psychology, and traditional Indian philosophies. Neurobiological research highlights the role of neuroplasticity, the limbic system, neurotransmitter activity, and prefrontal cortex function in regulating emotions, cognition, and behavior. Effective mental health practices, such as mindfulness and cognitive-behavioral therapy (CBT), enhance neuroplasticity, regulate limbic system activity, and modulate neurotransmitter levels, supporting both mental well-being and academic performance. Psychological theories, including cognitive-behavioral frameworks and positive psychology, underscore the importance of resilience, coping skills, and emotional regulation in promoting mental health and academic success. Social support networks, including family, peers, and educators, play a crucial role in fostering a supportive environment that mitigates stress and enhances academic achievement. Cultural practices rooted in the Bhagavad Gita, Gautam Buddha's teachings, and Patanjali's Yoga Sutras offer valuable insights into fostering mental well-being. These traditional Indian philosophies emphasize mindfulness, self-discipline, and the cultivation of inner peace, providing practical tools for managing stress and enhancing cognitive function. The task ahead is to foster the mental well-being of students through a holistic approach that integrates these neurobiological, psychological, social, and cultural dimensions. Implementing measures such as incorporating mindfulness practices, resilience training programs, and positive learning environments into educational curricula can significantly improve students' mental health and academic outcomes. By addressing the mental health needs of students, educators can create a foundation for academic excellence that encompasses both cognitive and emotional development, ensuring students thrive both mentally and academically.

Keywords: mental health, academics, academic excellence, students, cognitive development, emotional development.

(Paper received – 8th June 2024, Peer review completed – 5th July 2024, Accepted – 28th July 2024)

INTRODUCTION

Mental health is increasingly recognized as a critical component of academic excellence. The pressures of academic life, including rigorous coursework, competitive environments, and high expectations, can significantly impact students' mental well-being. Conversely, mental health challenges such as anxiety, depression, and stress can impede cognitive function, attention, and motivation, thus affecting academic performance. This interplay creates a cyclical relationship where poor mental health undermines academic success, and academic struggles exacerbate mental health issues. Understanding and addressing this dynamic is crucial for fostering an educational environment that supports both mental health and academic achievement [1].

The concept of academic excellence extends beyond grades and test scores; it encompasses the holistic development of students, including their emotional, psychological, and social well-being. We argue that mental health is foundational to academic excellence, and promoting mental wellness can enhance learning outcomes, creativity, problem-solving abilities, and overall student satisfaction. Drawing on interdisciplinary research from psychology, education, and neuroscience, we are attempting to explore how mental health challenges impede academic progress and propose strategies for integrating mental health support into educational frameworks to foster both mental and academic success. Mental health is not merely a supportive component but a fundamental prerequisite for achieving academic excellence, supported by relevant research and scholarly insights. The intricate relationship between mental health and academic performance is increasingly recognized as crucial in educational settings [2].

There are several commonalities and interconnection that exists between Mental Health and Academic Performance e.g. Mental health directly influences cognitive functions such as attention, memory, and executive functioning, which are essential for academic success. Students with good mental health are better equipped to concentrate, process information, and solve problems effectively. Emotional well-being plays a critical role in managing stress and anxiety, common experiences among students. Effective stress management enhances resilience, enabling students to cope with academic pressures and perform optimally. Positive mental health fosters intrinsic motivation and engagement in academic activities. Students who are mentally healthy are more likely to be motivated, actively participate in class, and pursue their academic goals with enthusiasm [3].

There is irrefutable evidence that mental health remains as a key precursor as well as facilitator for academic excellence,

1. **Improved Academic Outcomes:** Research consistently shows that students with better mental health achieve higher grades and are more likely to complete their education. A study by Suldo et al. found that high school students with positive mental health reported better academic performance and fewer school absences.
2. **Reduction in Behavioural Problems:** Addressing mental health issues reduces behavioural problems that can disrupt learning. Students with untreated mental health conditions are more prone to absenteeism, disciplinary issues, and dropout, negatively impacting their academic trajectory
3. **Enhanced Social Skills and Peer Relationships:** Mental health influences social interactions and the ability to build positive peer relationships. Strong social support networks are associated with better academic outcomes, as they provide emotional support and enhance collaborative learning. The evidence of interrelation ship is not only for the role of causation but, instead interventional initiatives have reaffirmed this connection e.g. Strategies for Integrating Mental Health into Academic Frameworks [4].

Implementing comprehensive mental health programs within schools can proactively address students' psychological needs. Programs like social-emotional learning (SEL) have been shown to improve mental health and academic performance simultaneously. Ensuring that students have access to mental health counselling and support services is essential. Schools and universities should provide resources such as on-campus counselling centres, mental health workshops, and peer support groups to address mental health concerns promptly. Cultivating a supportive educational environment that prioritizes mental well-being fosters a positive academic culture. Educators can play a pivotal role by recognizing signs of mental distress, offering support, and promoting a stigma-free attitude towards mental health. Mental health is a cornerstone of academic excellence, influencing cognitive functions, emotional regulation, motivation, and social interactions. By integrating mental health initiatives into educational frameworks, institutions can enhance students' academic performance and overall well-being. Investing in mental health is not just beneficial but essential for fostering an environment where students can thrive academically and personally [5].

Impact of Mental Health Challenges on Academic Performance

Mental health disorders such as depression, anxiety, and ADHD are associated with cognitive impairments that hinder academic performance. These conditions affect attention, memory, and executive functioning, which are crucial for learning and academic success. Emotional distress from mental health challenges

disrupts students' ability to engage with their studies. High levels of stress and anxiety can lead to difficulty concentrating, procrastination, and avoidance behaviours, further impairing academic outcomes [6]. Behavioural problems stemming from untreated mental health conditions can result in absenteeism, tardiness, and disciplinary actions. These issues reduce instructional time and negatively impact academic achievement [7].

Consequences of Poor Academic Performance on Mental Health

Poor academic performance exacerbates stress and anxiety, creating a feedback loop where declining grades lead to increased mental health challenges. Students struggling academically are more likely to experience low self-esteem, hopelessness, and heightened anxiety. Academic failure and the associated stress can precipitate or worsen mental health disorders. The pressure to perform academically can lead to depression, anxiety disorders, and other mental health issues, which in turn impede further academic progress. Chronic academic underachievement and the associated psychological distress contribute to long-term mental health disabilities and impaired functioning. The persistent stress and failure to achieve academic goals can lead to enduring mental health problems that affect life beyond education [8].

The Vicious Cycle of Mental Health and Academic Performance

The relationship between mental health and academic performance is cyclical. Mental health challenges impair academic performance, leading to increased stress and worsening mental health, which further impairs academic success. This vicious cycle can be difficult to break without targeted interventions. The compounding effects of this cycle mean that students who initially face minor mental health challenges or academic difficulties can quickly find themselves in a downward spiral. Early intervention is critical to prevent the escalation of these issues. Ultimately, the interplay between mental health and academic performance can lead to significant disabilities and impaired functioning. Students caught in this cycle may struggle to achieve their educational and career goals, impacting their overall quality of life [9].

Academic Failure and Challenges as Social Determinants of Mental Disorders

Academic failure and challenges stand out as potent life events that transform into significant social determinants of mental disorders. Educational setbacks experienced by students can lead to enduring psychological stress and socioeconomic consequences, establishing a direct link between academic struggles and mental health disorders. Academic failure induces significant psychological stress. The pressure to succeed academically and the stigma associated with failure can lead to feelings of inadequacy, low self-esteem, and hopelessness, which are precursors to mental health disorders such as depression and anxiety. Persistent academic challenges trigger a chronic stress response. The repeated activation of stress pathways in the brain can lead to long-term changes in brain structure and function, increasing the vulnerability to mental health disorders. Academic failure often results in limited educational and career opportunities, leading to socioeconomic disadvantages. These disadvantages, including unemployment and lower income, are well-established social determinants of mental health disorders, exacerbating the risk of developing such conditions. Academic failure can lead to social exclusion and stigma. Students who struggle academically are often marginalized, which can result in social isolation, a known risk factor for mental health disorders. The social stigma attached to academic failure further compounds the psychological burden. Lower levels of educational attainment are consistently linked with higher rates of mental health disorders. The lack of academic qualifications limits access to stable and well-paying jobs, leading to financial stress and reduced access to healthcare, both of which contribute to mental health problems. The consequences of academic failure can extend to future generations. Parents with lower educational attainment due to academic challenges are less likely to provide an enriched educational environment for their children, perpetuating a cycle of academic struggles and associated mental health risks [10-11].

Numerous studies have demonstrated a strong link between academic stress and mental health disorders. For instance, a study found that academic stress was a significant predictor of depression and anxiety among high school students. The socioeconomic impact of academic failure is well-documented [12]. Studies highlight that socioeconomic status is a critical determinant of mental health, with lower status being associated with higher prevalence of mental disorders. Longitudinal studies have shown that lower

educational attainment is associated with poorer mental health outcomes. Academic failure and challenges are powerful life events that transform into significant social determinants of mental disorders. The psychological stress, socioeconomic disadvantages, and social stigma associated with academic struggles create a complex interplay of factors that increase the risk of developing mental health conditions. Recognizing and addressing the broader social implications of academic failure is crucial for developing effective mental health interventions and support systems [13].

Neurocognition: The Common Substrate for a Healthy Mind and Academic Success

Neurocognition encompasses the brain's ability to perform various mental processes, such as attention, memory, problem-solving, and decision-making. These cognitive functions are foundational for both mental health and academic success, serving as a common substrate that interlinks these two crucial aspects of a student's life. Neurocognitive functions underpin a healthy mind and academic achievement [14].

Attention is crucial for learning and academic performance. It allows students to focus on tasks, process information, and maintain concentration during studies. Deficits in attention, such as those seen in attention deficit hyperactivity disorder (ADHD), can significantly impair academic outcomes. Memory, particularly working memory, is essential for retaining and manipulating information. It enables students to comprehend lessons, solve problems, and perform well in examinations. Research shows that strong working memory capacity is positively correlated with academic achievement. Executive functions, including planning, organization, and cognitive flexibility, are critical for academic tasks that require complex problem-solving and adaptability. These skills help students manage their time effectively, set goals, and navigate academic challenges. Language skills are fundamental for reading comprehension, writing, and verbal communication in educational settings. Efficient language processing supports understanding of course material and effective communication of knowledge, both of which are vital for academic success [15].

Emotional regulation, governed by neurocognitive processes, is essential for mental health. It allows individuals to manage their emotional responses to stress and adversity, reducing the risk of anxiety and depression. Cognitive control, or the ability to suppress inappropriate thoughts and actions, is linked to mental well-being. Impaired cognitive control is associated with various mental health disorders, including obsessive-compulsive disorder (OCD) and schizophrenia. Social cognition involves understanding and interpreting social cues and interactions. It is crucial for building and maintaining healthy relationships, which are integral to emotional support and mental health [16].

Neurocognitive functions serve as the common substrate for both academic success and mental health. The interplay between cognitive abilities and emotional well-being is evident in various studies, suggesting that enhancing neurocognitive functions can simultaneously improve academic performance and mental health outcomes. The relationship between cognitive functions and mental health is bidirectional. Academic success, which often relies on robust cognitive abilities, can boost self-esteem and reduce stress, contributing to better mental health. Conversely, poor mental health can impair cognitive functions, leading to academic difficulties. Interventions aimed at improving neurocognitive functions, such as cognitive-behavioural therapy (CBT) and educational programs focused on executive function training, can have dual benefits. They can enhance academic skills while also addressing mental health issues, demonstrating the interconnected nature of these domains. Studies have shown that interventions targeting cognitive skills, such as memory training and attention-enhancement programs, lead to significant improvements in academic performance. Mental health interventions that focus on cognitive aspects, such as mindfulness and stress reduction techniques, have been found to improve cognitive functions and academic outcomes. These interventions help in managing stress and enhancing concentration, leading to better academic results [17].

Indian Cultural Ethos as a Protective Mechanism for Mental Health and Academic Challenges

Indian cultural ethos, deeply rooted in ancient philosophies such as the Bhagavad Gita, the teachings of Gautam Buddha, and the principles of Patanjali's Yoga Sutras, provides a robust framework for addressing mental health and academic challenges. These cultural elements offer protective mechanisms that promote mental resilience, reduce stress, and enhance academic performance, supported by evidence from these philosophical traditions.

The Bhagavad Gita emphasizes the concept of detachment from the results of one's actions (Karma Yoga). This teaching helps in reducing anxiety related to academic outcomes, fostering a focus on the process rather

than the result. By encouraging students to do their best without undue worry about the results, it mitigates performance pressure and enhances cognitive resilience. The Gita advocates performing one's duty (Svadharma) with righteousness and dedication. This principle instils a sense of purpose and discipline, which are crucial for academic success. The sense of duty helps students stay committed to their educational goals despite challenges [18].

Gautam Buddha's teachings on mindfulness (Sati) and meditation (Dhyana) are powerful tools for managing stress and enhancing concentration. Mindfulness practices help students stay present and focused, improving their ability to absorb and retain information. Regular meditation has been shown to reduce anxiety and improve cognitive functions, which are beneficial for academic performance. The principle of compassion (Karuna) taught by Buddha encourages emotional regulation and empathy. Practicing compassion towards oneself and others can reduce the impact of academic stress and foster a supportive learning environment. Compassionate practices are linked to lower levels of anxiety and depression, promoting better mental health [19].

Patanjali's Yoga Sutras describe the practice of asanas (physical postures) which enhance physical health and well-being. Regular practice of asanas improves physical fitness, reduces stress, and enhances mental clarity, all of which contribute to better academic performance. Pranayama (breath control) is a key aspect of Patanjali's yoga that helps in regulating the autonomic nervous system, reducing stress, and improving emotional stability. Controlled breathing techniques have been shown to lower cortisol levels, reduce anxiety, and enhance cognitive functions, providing a calm and focused mind for academic challenges. Meditation (Dhyana) in Patanjali's yoga is aimed at achieving mental clarity and focus. Meditation practices enhance cognitive functions such as attention, memory, and executive function, which are essential for academic success. Studies have shown that regular meditation improves academic performance by enhancing students' ability to concentrate and process information [20].

Studies have shown that practices derived from Indian cultural ethos, such as yoga and mindfulness, significantly reduce stress and improve mental health. A study on the effects of yoga on stress management found that participants experienced lower stress levels and improved mental well-being. Research indicates that mindfulness and yoga practices enhance academic performance by improving cognitive functions and emotional regulation. A study on the impact of mindfulness training on students found significant improvements in attention and academic performance. The integration of body, mind, and spirit as advocated by Indian philosophies promotes holistic development. This holistic approach not only addresses academic challenges but also supports overall mental health and well-being [21].

Indian cultural ethos, through the teachings of the Bhagavad Gita, Gautam Buddha, and Patanjali's Yoga Sutras, provides a comprehensive protective mechanism for mental health and academic challenges. By promoting cognitive resilience, emotional regulation, physical health, and mindfulness, these ancient philosophies offer valuable tools for students to navigate academic pressures and maintain mental well-being. Embracing these cultural practices can lead to a balanced and successful academic journey, underpinned by robust mental health.

Resilience, Coping, and Positivity: Essential Skills for Mental Health and Academic Success

Resilience, coping, and positivity are critical skills for managing mental health and achieving academic success. These skills help students navigate challenges and adversities, maintaining a healthy mind and fostering academic excellence. The exploration of the neurobiological mechanisms and psychological, social, and cultural theories that support the development is significant and interesting.

Resilience refers to the ability to bounce back from adversity. Neurobiologically, resilience is associated with neuroplasticity—the brain's ability to reorganize itself by forming new neural connections. Experiences and training in resilience-building activities enhance neuroplasticity, leading to improved emotional regulation and cognitive flexibility. This adaptability is crucial for academic success, as it enables students to handle stress and recover from setbacks. The hypothalamic-pituitary-adrenal (HPA) axis plays a central role in the body's stress response. Chronic stress can dysregulate the HPA axis, leading to mental health issues like anxiety and depression, which can hinder academic performance. Resilience and effective coping strategies can modulate the HPA axis response, reducing cortisol levels and mitigating the negative effects of stress. Neurotransmitters such as serotonin and dopamine are involved in regulating mood and motivation.

Positive thinking and optimistic attitudes can enhance the production of these neurotransmitters, promoting mental well-being and motivation. This biochemical support helps students stay engaged and motivated in their academic pursuits [22-23].

Cognitive-behavioural theory (CBT) emphasizes the role of thought patterns in influencing emotions and behaviours. CBT techniques can help students develop resilience by changing negative thought patterns into positive and realistic ones. This cognitive restructuring supports better mental health and academic outcomes. Positive psychology focuses on building strengths and virtues that enable individuals to thrive. Practices such as gratitude exercises and strength-based interventions foster positivity and resilience, contributing to better mental health and academic success. Self-determination theory (SDT) posits that autonomy, competence, and relatedness are fundamental psychological needs. Fulfilling these needs enhances intrinsic motivation and well-being. Encouraging students to take control of their learning, feel competent in their abilities, and establish meaningful connections with others can boost both mental health and academic performance [24].

Social support theory highlights the importance of supportive relationships in managing stress and building resilience. Strong social networks provide emotional and practical support, which is vital for maintaining mental health and achieving academic success. Peer support, family involvement, and mentorship can enhance students' ability to cope with academic pressures. Cultural values and practices influence coping strategies and resilience. In collectivist cultures like India, communal support and collective coping mechanisms play a significant role in stress management. Cultural practices such as meditation, yoga, and community rituals can promote mental well-being and resilience [25]. Incorporating mindfulness and meditation practices into daily routines can enhance resilience and coping skills. These practices improve emotional regulation, reduce stress, and increase focus, all of which contribute to academic success. Schools and universities can implement resilience training programs that teach students cognitive-behavioural techniques, stress management skills, and positive thinking strategies. These programs can help students develop a resilient mindset, enabling them to handle academic challenges more effectively. Creating a supportive and positive learning environment is crucial for fostering resilience and positivity. Teachers and administrators can promote a growth mindset, encourage collaborative learning, and provide resources for mental health support. A positive academic environment enhances students' motivation and resilience [26].

Brain Mechanisms for Mental Health and Academic Success

The relationship between mental health and academic success is deeply rooted in the brain's complex functioning. Several brain mechanisms play pivotal roles in regulating emotions, cognition, and behaviours that contribute to both mental well-being and academic performance. The interplay into key brain mechanisms, including neuroplasticity, the limbic system, neurotransmitter activity, and the prefrontal cortex's role in executive function possibly lay the foundation common origin of the problems. Neuroplasticity is the brain's ability to reorganize itself by forming new neural connections throughout life. This adaptability is fundamental for learning and memory, which are critical for academic success. Mental health practices, such as mindfulness and cognitive-behavioural therapy (CBT), can enhance neuroplasticity, leading to improved emotional regulation and cognitive flexibility. These changes help students adapt to new information, solve problems more effectively, and recover from academic setbacks. The limbic system, including structures such as the amygdala, hippocampus, and hypothalamus, is crucial for emotional regulation and memory formation. The amygdala processes emotions like fear and anxiety, while the hippocampus is essential for forming new memories and learning. Chronic stress can over activate the amygdala and impair hippocampal function, leading to anxiety, depression, and cognitive difficulties. Effective stress management techniques can help regulate limbic system activity, promoting both mental health and academic performance. Neurotransmitters are chemical messengers that transmit signals across synapses in the brain, playing vital roles in mood, motivation, and cognitive functions. Serotonin is involved in mood regulation, anxiety, and happiness. Imbalances in serotonin levels are linked to depression and anxiety disorders, which can adversely affect academic performance. Antidepressant treatments and lifestyle changes, such as exercise and diet, can help regulate serotonin levels and improve mental health and academic outcomes. Dopamine is critical for motivation, reward processing, and attention. High levels of dopamine are associated with increased motivation and pleasure in learning, while low levels can lead to

apathy and decreased academic performance. Activities that boost dopamine, such as engaging in enjoyable tasks and achieving goals, can enhance both mental health and academic success. Cortisol is a stress hormone that affects various brain functions, including memory and learning. While acute stress can enhance cognitive performance, chronic stress and elevated cortisol levels can impair cognitive functions and lead to mental health issues like anxiety and depression. Stress-reducing techniques, such as mindfulness meditation and relaxation exercises, can help manage cortisol levels, supporting both mental health and academic performance [27].

The prefrontal cortex (PFC) is responsible for executive functions, including decision-making, problem-solving, planning, and impulse control. Effective functioning of the PFC is essential for academic tasks that require focus, organization, and critical thinking. Mental health disorders, such as ADHD and depression, can impair PFC activity, leading to difficulties in academic performance. Strategies to enhance PFC function include cognitive training exercises, sufficient sleep, and balanced nutrition. The interaction between the limbic system and the prefrontal cortex is crucial for integrating emotional and cognitive processes. A balanced interaction helps students manage emotions while engaging in complex cognitive tasks, promoting both mental health and academic success. The Default mode network (DMN) is a network of brain regions active during rest and introspection. Dysregulation of the DMN is associated with rumination and anxiety. Practices like mindfulness and meditation can modulate DMN activity, reducing negative thought patterns and enhancing cognitive focus, thereby supporting academic success [28].

Mindfulness and meditation practices enhance neuroplasticity, regulate limbic system activity, and modulate neurotransmitter levels, promoting mental well-being and cognitive performance. These practices can be integrated into educational settings to support students' mental health and academic success. Cognitive behavioural therapy (CBT) helps reframe negative thought patterns and develop coping strategies, enhancing resilience and emotional regulation. By improving mental health, CBT indirectly supports academic performance. Regular physical exercise boosts neuroplasticity, increases dopamine and serotonin levels, and reduces cortisol levels, supporting both mental health and cognitive functions necessary for academic success [29].

The brain mechanisms underlying mental health and academic success are intricately linked, with neuroplasticity, limbic system activity, neurotransmitter function, and prefrontal cortex operations playing pivotal roles. Enhancing these brain functions through mindfulness, cognitive-behavioural strategies, and physical exercise can significantly improve both mental well-being and academic performance.

Conclusions

In conclusion, mental health and academic excellence are inextricably linked, creating a complex interplay that significantly influences students' educational experiences and outcomes. Addressing mental health challenges is essential for promoting academic success, as poor mental health can impair cognitive functions, reduce motivation, and increase absenteeism, all of which hinder academic performance. Conversely, academic difficulties can exacerbate mental health issues, creating a vicious cycle that undermines both mental well-being and educational attainment. The evidence underscores the importance of fostering resilience, coping skills, and positivity among students. Neurobiological mechanisms such as neuroplasticity and neurotransmitter regulation, along with psychological theories like cognitive-behavioural therapy and positive psychology, highlight the potential for enhancing students' mental health through targeted interventions. Social support networks and cultural practices further reinforce the role of a supportive environment in promoting mental well-being and academic success.

Educational institutions must prioritize mental health by integrating comprehensive mental health support services, resilience training programs, and positive learning environments into their curricula. By addressing the mental health needs of students, educators can create a foundation for academic excellence that encompasses both cognitive and emotional development. Such an approach not only improves academic outcomes but also prepares students for lifelong success and well-being. Ultimately, the pursuit of academic excellence should not come at the expense of mental health. This holistic approach to education recognizes that a healthy mind is essential for achieving one's full academic potential, and it calls for a collaborative effort from educators, policymakers, parents, and students to create a supportive and nurturing educational environment.

REFERENCES

1. DeSocio J, Hootman J. Children's mental health and school success. *J School Nurs* 2004;20(4):189-96.
2. Suldo SM, Gormley MJ, DuPaul GJ, Anderson-Butcher D. The impact of school mental health on student and school-level academic outcomes: Status of the research and future directions. *School Ment Health* 2014;6(2):84-98.
3. Fisher PH, Masia-Warner C, Klein RG. Skills for social and academic success: A school-based intervention for social anxiety disorder in adolescents. *Clin Child Fam Psychol Rev* 2004;7(4):241-9.
4. Roach A. Supportive peer relationships and mental health in adolescence: An integrative review. *Iss Ment Health Nurs* 2018;39(9):723-37.
5. Payton JW, Wardlaw DM, Graczyk PA, Bloodworth MR, Tompsett CJ, Weissberg RP. Social and emotional learning: A framework for promoting mental health and reducing risk behaviour in children and youth. *J School Health* 2000;70(5):179-85.
6. Joe S, Joe E, Rowley LL. Consequences of physical health and mental illness risks for academic achievement in grades K-12. *Rev Res Educ* 2009;33(1):283-309.
7. Allen CW, Diamond-Myrsten S, Rollins LK. School absenteeism in children and adolescents. *Amer Fam Physician* 2018;98(12):738-44.
8. Kumaraswamy N. Academic stress, anxiety and depression among college students: A brief review. *Int Rev Soc Sci Humanities* 2013;5(1):135-43.
9. Rnic K, Santee AC, Hoffmeister JA, Liu H, Chang KK, Chen RX, Neufeld RW, Machado DA, Starr LR, Dozois DJ, LeMoult J. The vicious cycle of psychopathology and stressful life events: A meta-analytic review testing the stress generation model. *Psychol Bull* 2023;149(5-6):330-45.
10. McCloud T, Bann D. Financial stress and mental health among higher education students in the UK up to 2018: rapid review of evidence. *J Epidemiol Commun Health* 2019;73(10):977-84.
11. Eleftheriades R, Fiala C, Pasic MD. The challenges and mental health issues of academic trainees. *F1000Research* 2020;9:104.
12. Reddy JK, Menon K, Thattil A. Understanding academic stress among adolescents. *Artha J Soc Sci* 2017;16(1):39-52.
13. Ameen S, Dil S, Sadiq W, Khan N. Impact of Meanings of Education on Academic Achievement: The Mediating Role of Academic Stress. *Crit Rev Soc Sci Stud* 2025;3(2):609-21.
14. Pluck G, Mancero PB, Encalada PA, Alcívar AM, Gavilanez CE, Chacon P. Differential associations of neurobehavioral traits and cognitive ability to academic achievement in higher education. *Trends Neurosci Educ* 2020;18:100124.
15. Arnold LE, Hodgkins P, Kahle J, Madhoo M, Kewley G. Long-term outcomes of ADHD: academic achievement and performance. *J Attention Disord* 2020;24(1):73-85.
16. Mitchell DG. The nexus between decision making and emotion regulation: a review of convergent neurocognitive substrates. *Behav Brain Res* 2011;217(1):215-31.
17. Zainal NH. Interventions to Enhance Neurocognition for Common Mental Disorders: A Brief Review. *Psychiatr Ann* 2024;54(9):e263-7.
18. Dabas P, Singh A. The Bhagavad Gita teachings for promoting resilience and optimism among school children: A narrative overview. *Indian J Positive Psychol* 2016;7(2):232.
19. Ghimire M, Mishra S, Mahatara M. Long-term Behavior Change Through Yoga and Meditation Among Secondary School Children: Review of Buddhism. *GS WOW: Wisdom of Worthy Res J* 2025;4(1):77-84.
20. Verma R, Vashisht A, Bhatt M, Gupta A, Om R, Dabas A, Arya V. Global research trend on yoga intervention in educational systems: A bibliometric study of three decades. *Yoga Mimamsa* 2022;54(2):119-27.
21. Butzer B, Bury D, Telles S, Khalsa SB. Implementing yoga within the school curriculum: A scientific rationale for improving social-emotional learning and positive student outcomes. *J Child Serv* 2016;11(1):3-24.
22. Herrman H, Stewart DE, Diaz-Granados N, Berger EL, Jackson B, Yuen T. What is resilience?. *Can J Psychiatry* 2011;56(5):258-65.
23. Kinlein SA, Karatsoreos IN. The hypothalamic-pituitary-adrenal axis as a substrate for stress resilience: Interactions with the circadian clock. *Front Neuroendocrinol* 2020;56:100819.
24. Radhamani K, Kalaivani D. Academic resilience among students: A review of literature. *Int J Res Rev* 2021;8(6):360-9.
25. Twum-Antwi A, Jefferies P, Ungar M. Promoting child and youth resilience by strengthening home and school environments: A literature review. *International J School Educ Psychol* 2020;8(2):78-89.
26. Stewart D, Wang D. Building resilience through school-based health promotion: a systematic review. *Int J Ment Health Promotion* 2012;14(4):207-18.
27. Fonseca R, Madeira N, Simoes C. Resilience to fear: The role of individual factors in amygdala response to stressors. *Mol Cellular Neurosci* 2021;110:103582.
28. Maier SF, Watkins LR. Role of the medial prefrontal cortex in coping and resilience. *Brain Res* 2010;1355:52-60.
29. Marchand WR. Neural mechanisms of mindfulness and meditation: Evidence from neuroimaging studies. *World J Radiology* 2014;6(7):471-9.

Acknowledgements – Nil; Conflict of Interest – Nil; Funding – Nil