

Prevalence of Anxiety, Depression, and Stress Among University Students and the Role of Counseling Services in Improving Mental Health Outcomes

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Abstract

University students worldwide face a significant mental health crisis, with meta-analyses indicating prevalence rates of approximately 33.6% for depression symptoms and 39.0% for anxiety, with even higher figures among medical students (up to 79.5% experiencing stress-related morbidity). These rates are influenced by academic pressure, financial instability, sleep disturbances, problematic internet use, and intersecting vulnerabilities related to gender, minority status, and socioeconomic background. Symptom severity often peaks in early academic years due to adjustment challenges, while post-pandemic effects have prolonged loneliness and executive dysfunction. University counseling services demonstrate strong clinical efficacy, with over 52% of users showing reliable improvement in depression, anxiety, and related symptoms, alongside gains in GPA and retention. However, substantial barriers including stigma, self-reliance beliefs, long wait times, and limited culturally competent care result in only 20–30% of affected students accessing services. Innovations such as teletherapy, peer support programs, mindfulness-based interventions, and whole-university approaches are expanding reach and reducing the treatment gap. This review underscores the need for integrated, accessible, and stigma-free mental health support to improve psychological wellbeing and academic outcomes in higher education.

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Introduction

The landscape of higher education has become increasingly synonymous with a burgeoning mental health crisis, characterized by high prevalence rates of depression, anxiety, and stress among the global student population. (Aloka, 2023). Comprehensive meta-analyses evaluating the state of psychological distress between 2020 and 2026 indicate that the global prevalence of depression symptoms stands at approximately 33.6 %, while anxiety symptoms are even more pervasive at 39.0 %. These figures represent a significant escalation from pre-pandemic baselines and highlight the unique vulnerability of the university demographic, which typically

navigates the high-pressure transition from adolescence to adulthood (Silfen, 2022). This developmental window, occurring between the ages of 18 and 25, often acts as a repository for the onset of serious psychiatric conditions, with research suggesting that 75 % of all mental health disorders present by the age of 25 (Solmi et al., 2022).

The manifestation of these symptoms is not uniform across the globe, revealing deep-seated geographic and socioeconomic disparities. The highest rates of depressive symptoms are consistently reported in the African region, reaching 40.1 %, and in lower-middle-income countries (LMICs), where prevalence can climb to 42.5 % (Khumalo, 2026). Conversely, North America witnesses some of the highest recorded levels of anxiety, with nearly 48.3 % of students screening positive for clinical symptoms (Abeyta, 2025). These variations are not merely geographic but are heavily influenced by the diagnostic instruments employed in the research. Studies utilizing the Depression, Anxiety and Stress Scale (DASS-42) frequently report higher prevalence rates (up to 48.9 %) compared to those utilizing the Patient Health Questionnaire (PHQ-9) or the Beck Anxiety Inventory (Patel, 2023). This discrepancy suggests that certain tools may be more sensitive to sub-clinical distress, while others focus on major depressive or generalized anxiety disorders.

Table 1. Global and Regional Prevalence of Mental Health Symptoms (2020-2025)

Region / Demographic	Depression Prevalence	Anxiety Prevalence	Stress Prevalence
Global Meta-Analysis Average	33.6 %	39.0 %	N/A
Medical College Students (Global)	39.4 %	47.1 %	79.5 %
Africa Region	40.1 %	N/A	N/A
North America	N/A	48.3 %	N/A
South Asian Region (Pakistan/India)	51.0 %	74.2 %	84.4 %
Middle East (Saudi Arabia - KFU)	24.4 %	18.0 %	N/A
Southeast Asia (Malaysia)	23.7 %	63.0 %	37.0 %

The severity of the crisis is further illustrated by the high degree of comorbidity among university students. Longitudinal investigations reveal that approximately 22.5 % of students exhibit symptoms of at least two mental disorders simultaneously, while nearly 9.7 % of the student body experiences the "triple burden" of anxiety, depression, and stress in a concurrent fashion (Mhanna et al., 2022). This clustering of symptoms complicates treatment and suggests that the underlying stressors are multifaceted, impacting multiple domains of psychological functioning at once.

The Influence of Academic Progression on Symptom Severity

A critical insight emerging from recent research is the relationship between academic seniority and mental health vulnerability. Contrary to the assumption that pressure increases as graduation approaches, evidence suggests that second-year students often report significantly higher levels of depression compared to their fourth-year counterparts (Baham, 2025). This phenomenon is hypothesized to be a result of the "sophomore slump," where the initial novelty of the university environment has faded, but the student has not yet consolidated a professional identity or developed robust academic coping strategies (Torem, 2025). As students' progress toward their final years, they often benefit from improved academic adjustment, more stable social support networks, and a clearer sense of future orientation, which serves as a

psychological mechanism to buffer the effects of social and academic stressors (Fernández Lasarte et al., 2020).

Individual, Institutional, and Community Determinants of Psychological Distress

The etiology of mental health challenges in university settings is rooted in a complex hierarchy of risk factors ranging from individual biological traits to broader institutional cultures. Academic pressure remains the most frequently cited individual stressor, with over 50 % of students identifying it as a primary cause of their distress (Limone & Toto, 2022). However, this pressure does not exist in a vacuum; it is exacerbated by financial instability, poor sleep hygiene, and the erosion of social support systems.

Socioeconomic and Lifestyle Risk Factors

Financial strain acts as a pervasive driver of student anxiety and depression, particularly in the wake of global inflation and rising tuition costs. Approximately 39 % of students report personal finances as a major stressor, often leading to food and housing insecurity (Olusina, 2025). This burden is especially acute for first-generation students, who must navigate both financial constraints and a cultural mismatch between their home environments and the expectations of elite academic institutions (Chang et al., 2020).

Table 2. Impact of Lifestyle and Health Factors on Student Mental Health

Lifestyle / Health Factor	Prevalence or Association	Implication for Intervention
Insomnia and Sleep Disorders	42.9 % prevalence	Lifestyle coaching/Sleep hygiene
Low Self-Esteem	High correlation with DASS scores	Empowerment-focused counseling
Problematic Internet Use (PIU)	23.0 % prevalence	Digital literacy/screen-time management
Nutritional Inadequacy	82.6 % needs diet improvement	Campus wellness/food security programs
Chronic Illness	13.9 % severe depression rate	Integrated health and disability services

Lifestyle factors such as sedentary behavior, poor nutritional habits, and substance use also contribute significantly to the decline of mental wellbeing. For instance, nearly 82.6 % of university students report needing improvement in their diet, and 42.9 % suffer from some degree of insomnia (Johnstad, 2024). Sleep deprivation is particularly detrimental, as it impairs cognitive function and emotional regulation, thereby reducing a student's capacity to handle academic workloads and increasing their susceptibility to "technostress" the anxiety caused by constant connectivity and the pressure to maintain an online presence (Rahmia et al., 2025). Furthermore, Problematic Internet Use (PIU) has been independently associated with increased symptoms of depression and anxiety, acting as both a symptom and a cause of social isolation (Ruckwongpatr et al., 2022). This complex interaction of factors can be better understood through a conceptual framework that integrates individual, institutional, and environmental determinants. Figure 1 illustrates the multidimensional pathways leading to psychological distress among university students.

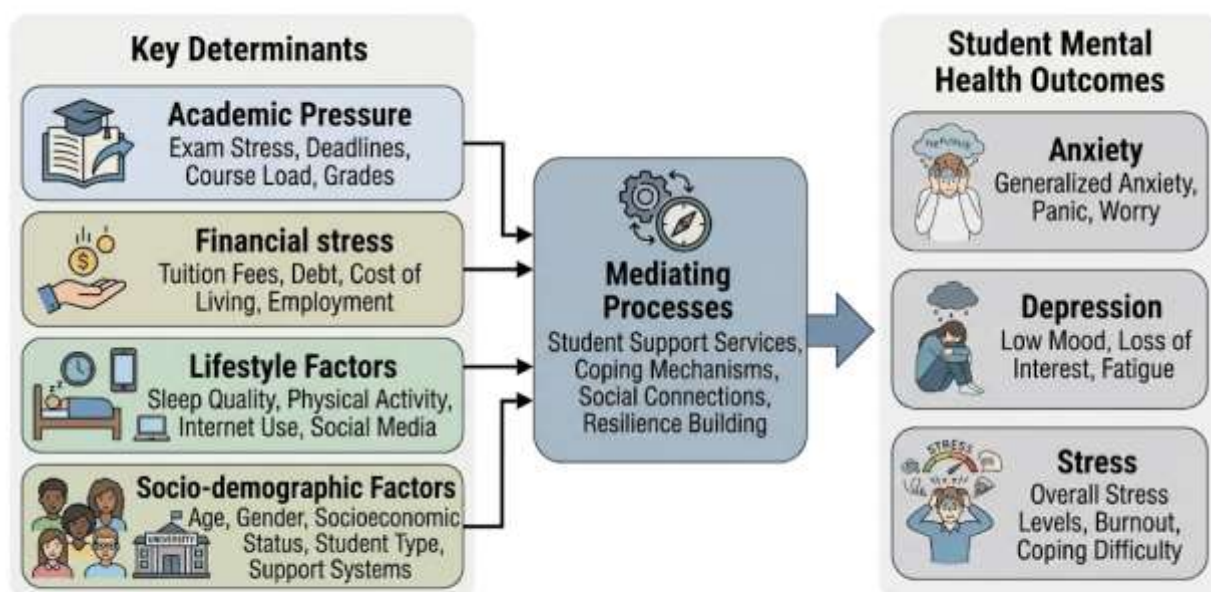


Figure 1. Conceptual Framework of University Student Mental Health Determinants

Demographic Vulnerabilities and Intersectionality

The risk profile for mental health disorders is heavily moderated by gender, sexual orientation, and minority status. Female students consistently report higher levels of anxiety and stress than their male peers (Bissonette & Szymanski, 2019). Research from Kashmir, India, confirms this trend, with female gender showing a strong correlation with severe anxiety (Odds Ratio of approximately 1.68) and perceived stress (Pandey et al., 2023). These disparities are often linked to social norms that may discourage males from expressing vulnerability while placing higher emotional demands on females (Heise et al., 2019).

However, the most severe psychological outcomes are found at the intersection of multiple marginalized identities. LGBTQ+ students, particularly those with low social support, face compounded risks of discrimination, microaggressions, and feelings of isolation, leading to higher rates of suicidal ideation and severe depression (Rubin-McGregor et al., 2025). Black transgender students, for example, may encounter unique challenges related to both racial and gender discrimination, necessitating tailored, culturally competent care that acknowledges these intersecting stressors (Gerwe, 2025).

The Academic Environment and the Medical Education Crisis

Universities are inherently competitive environments, but certain disciplines impose unique burdens on their students. Medical and healthcare programs are consistently identified as the most stressful academic pathways, with global data indicating that 79.5 % of medical students experience significant morbidity related to anxiety, depression, and stress (Navarro et al., 2025). In South Asian contexts, such as Pakistan and Bangladesh, medical students report depression rates ranging from 39.1 % to 70 %, driven by a rigorous curriculum, frequent examinations, and clinical exposure to trauma (Nien, 2025).

Table 3. Prevalence of Depression Among Medical Students in South Asia

Country	Reported Rate	Primary Stressors Identified
Pakistan	70.0 %	Academic competition, career uncertainty
Afghanistan	69.6 %	Conflict, socioeconomic instability
India	50.0 %	High parental expectations, workload
Bangladesh	39.1 % to 58.6 %	Exam pressure, clinical burnout

Nepal	29.78 %	Resource limitations, social pressure
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The "burnout" experienced by medical students has long-term implications for the healthcare workforce, potentially leading to medical errors, substance abuse, and increased dropout rates (Cotobal Rodeles et al., 2025). Institutional factors, such as strict grading guidelines and a lack of mental health resources specifically tailored for health students, exacerbate these issues. Many medical students also fear that seeking help will attract official scrutiny or jeopardize their future professional standing, leading to a culture of silence (Wiedermann et al., 2023).

The Post-Pandemic "Long Tail" and the Rise of the Scarred Generation

The academic years of 2024 through 2026 have revealed that the "return to normal" following the COVID-19 pandemic is a sociological illusion. While physical restrictions have been removed, the psychological patterns established during the years of isolation (2020-2022) have calcified into chronic conditions for many students (Trusson et al., 2025). This cohort, often referred to as the "Scarred Generation," exhibits a complex bifurcation in their mental health status: while indices of suicidal ideation have dropped from 15 % to 11 % since 2022, anxiety and loneliness remain stubbornly high (Malmendier & Shen, 2024).

Executive Dysfunction and the Resilience Gap

One of the most profound impacts of the pandemic era was the disruption of developmental milestones. The shift to emergency remote learning prevented students from practicing sustained cognitive focus and deep interpersonal engagement (Yates et al., 2025). As a result, current students often display a "resilience gap," where the rigor of traditional university life triggers rapid burnout and cognitive overload (Campbell, 2019). This has led to a compensatory reliance on Generative AI to bypass the "struggle" of academic tasks, which may inadvertently lead to a loss of critical thinking skills and a "hollow competence" (Wach et al., 2023).

Furthermore, the "death of third places" physical spaces for social interaction outside of home and work has fragmented campus communities. Despite being physically present on campus, over 50 % of students report high levels of loneliness, suggesting that the structural impact of pandemic isolation has fundamentally altered how students form social bonds (Lee et al., 2019). Longitudinal tracking of personality traits reveals that while extraverts have rebounded more quickly, students with high baseline anxiety continue to struggle with social reconnection (Khazan, 2025).

The Role of University Counseling Services in Improving Outcomes

University Counseling Services (UCSs) are the primary institutional mechanism for addressing the student mental health crisis. Evidence from the Center for Collegiate Mental Health (CCMH) indicates that participating in counseling is not only beneficial for mental health but is also a critical predictor of academic success and retention (Burke, 2025).

Clinical Efficacy and Symptom Improvement

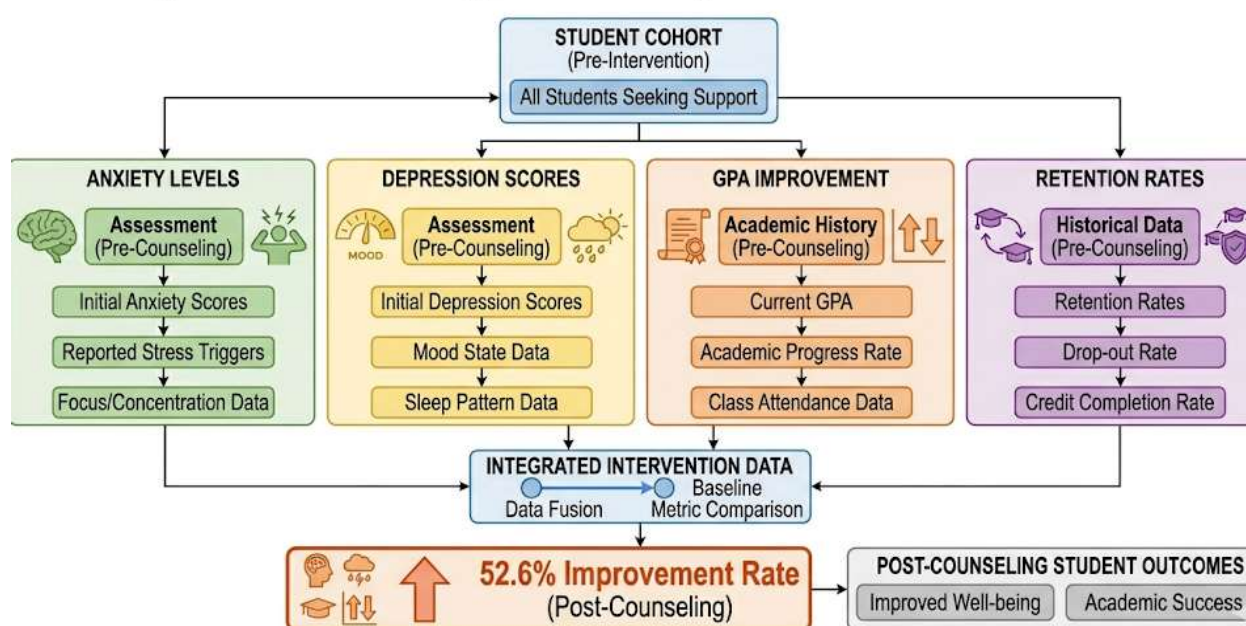
Counseling services have demonstrated remarkable efficacy in treating elevated levels of distress. Approximately 52.6 % of students who seek care show reliable improvement on at least one clinical subscale, with the most significant gains seen in depression, social anxiety, and hostility (Olfson et al., 2019). In fact, the level of improvement achieved in routine university care is equivalent to that observed in rigorous randomized controlled trials (RCTs), a finding that is particularly significant given that campus counselors often manage complex, comorbid cases with limited sessions (Lortie-Forgues & Inglis, 2019).

Table 4. Improvement Rates Following University Counseling (CCMH Data)

Clinical Measure	% of Students Improving
Depression (Elevated Symptoms)	49.5 %
Generalized Anxiety	37.0 %
Social Anxiety	24.1 %
Hostility	34.6 %
Overall Reliable Improvement	52.6 %

Beyond symptom reduction, counseling directly facilitates personal development and professional identity consolidation. Students who engage in long-term counseling are more likely to experience GPA increases and are significantly less likely to drop out of their programs than their peers who either do not seek help or fail to follow through with recommended treatment (Dong et al., 2018). Quantitative analysis shows that counseling can lead to an average mark increase of 10 % to 25 % for a significant portion of the student body, proving that mental health support is an essential component of the university's academic mission (Kearney et al., 2021). The effectiveness of counseling services extends beyond symptom reduction to academic performance enhancement. Figure 2 demonstrates the measurable improvement in psychological and academic outcomes following counseling intervention.

Figure 2: Counseling Services Impact on Student Outcomes



Barriers to Accessing Mental Health Services

Despite the clear benefits of counseling, a "treatment gap" persists, with only 20 % to 30 % of students screening positive for mental health disorders actually utilizing on-campus services (Abelson et al., 2022).

Stigma and Self-Reliance

Individual-level barriers are dominated by social and internalized stigma. Approximately 64 % of students identify stigma as a major deterrent, fearing they will be labeled "crazy" or "mentally weak" (Carter, 2023). Many students also harbor a strong desire for self-reliance, believing they should be able to handle their problems independently without professional intervention (Keizer et al., 2019). This is often coupled with the "minimization" of problems, where students do not believe their struggles are "serious enough" to warrant care until they reach a point of crisis (Pauli, 2019).

Structural Constraints and Service Availability

Structural barriers, such as financial constraints and scheduling difficulties, are the most frequently reported obstacles, cited in 69 % of studies (Hora & Wolfgram, 2019). Even when services are offered at no cost, the time commitment required can be prohibitive for students working multiple jobs or carrying heavy course loads. Furthermore, many university counseling centers are chronically underfunded and understaffed, leading to long waiting lists that discourage students from seeking help in the first place (Holloway & Humphreys, 2019).

Table 5. Prevalence of Barriers to Mental Health Help-Seeking

Barrier Type	Frequency in Studies
Financial Constraints	69 %
Stigma and Self-Stigma	64 %
Service Availability/Waiting Lists	61 %
Lack of Awareness of Services	58 %
Help-Seeking Reluctance	53 %
Misconceptions about Therapy	45 %

International students face additional hurdles, as they may come from cultures where the stigma of mental illness is even greater (Cogan et al., 2024). The lack of culturally diverse and "affinity-based" counseling staff further alienates minority and international students, who may feel that on-campus providers do not understand their unique cultural stressors (Hollis, 2026).

Innovation in Mental Health Delivery: Digital and Peer Models

To circumvent traditional barriers, universities are shifting toward a "whole-university" approach that integrates digital technology, peer support, and mindfulness practices into the daily fabric of student life.

Teletherapy and Mobile Interventions

Digital health interventions, including teletherapy and mobile apps, have become increasingly popular, with teletherapy platforms now serving millions of students across over 700 campuses (ROY, 2023). These services offer 24/7 access, effectively addressing the "midnight crisis" that occurs outside of regular office hours (Bittla, 2025). Web-based Cognitive Behavioral Therapy (CBT) programs have been shown to reduce mild-to-moderate depression and anxiety by 20 % to 40 % (Alzilfi et al., 2024). Innovative models, such as the mood reporting app developed at the University of Debrecen, allow for the early identification of at-risk students without the stigmatization of a formal clinical intake (Winkler et al., 2025).

Peer Support and Social Support Theory

Peer support networks are emerging as a vital second-tier intervention. Based on social support theory, these programs leverage the fact that students often feel more comfortable talking to their peers than to professional counselors (Misanko, 2024). Longitudinal data confirms that peer support has a significant positive predictive effect on mental health, accounting for over 60 % of the variance in student wellbeing through the mediation of self-efficacy and social adaptation (Song, 2024). Programs that train "Student Wellbeing Ambassadors" to lead drop-in sessions and normalize help-seeking are particularly effective in reducing social isolation (Ozamiz-Etxebarria et al., 2025).

Mindfulness and MBSR

Stress Reduction (MBSR) Mindfulness-Based has been rigorously tested in academic settings, with results showing up to a 33 % reduction in perceived stress and a 40 %

reduction in general mental health issues (Baumgartner & Schneider, 2023). Mindfulness training not only alleviates anxiety but also improves cognitive functions such as focus and memory, which are essential for academic performance (Kathayat, 2024). These techniques help students build resilience against the uncertainties of online learning and the social isolation of the post-pandemic world (Iliško et al., 2024).

Global Policy Frameworks and Institutional Responsibility

International bodies like the World Health Organization (WHO) and UNESCO have released comprehensive guidelines for the 2024-2026 period, urging a fundamental reform of mental health policies in higher education. (Popa, 2024). The new WHO guidance emphasizes that mental health services should be integrated into the core mandates of all government sectors, including education, and should be based on international human rights standards (Aloka, 2023).

The WHO Education Sector Roadmap

The WHO roadmap for the education sector provides practical steps for governments to create safe and inclusive learning environments. Key recommendations include: Integrating mental health topics directly into the curriculum to improve mental health literacy (Zeidabadi et al., 2025).

Reducing academic pressures through the reform of grading and examination policies (Högberg et al., 2021).

Establishing clear referral pathways and ensuring that every student has "someone to contact" in a crisis (Baumhauer et al., 2025).

Promoting the wellbeing of teachers and staff, who act as "gatekeepers" for student distress (Robinson-Link et al., 2020).

UNESCO's "Whole-University" Vision

UNESCO advocates for a system-wide approach where mental health is not a siloed service but a foundation for learning and equity (Short et al., 2018). This involves making "Mental Health First Aid" training mandatory for all faculty and administrative staff, embedding trauma-informed principles into teaching, and fostering co-created solutions involving students in the design of interventions (Ozamiz-Etxebarria et al., 2025). HEIs are encouraged to use systematic data collection to identify gaps in service and ensure that no student's mental or physical condition becomes a barrier to their education (Cogan et al., 2025).

However, the implementation of these policies faces significant headwinds. In some countries, funding for mental health services is being cut at the federal level, and insurance parity for behavioral health remains unachieved (Okesanya et al., 2025). These systemic failures highlight the need for universities to become autonomous advocates for their students' health, utilizing their unique positions as research and community leaders to drive local change (Whittaker & Montgomery, 2022).

Conclusion

The high prevalence of anxiety, depression, and stress among university students represents a critical challenge to higher education systems globally, with significant implications for academic success, retention, and long-term wellbeing. Driven by intense academic demands, financial pressures, disrupted social connections, and intersecting vulnerabilities, these issues have been further exacerbated by the lingering effects of the COVID-19 pandemic. While university counseling services have proven highly effective in reducing symptoms and supporting academic performance, persistent structural and cultural barriers continue to limit access for many students. Moving forward, institutions must adopt comprehensive, whole-university strategies that integrate mental health literacy into curricula, expand digital

and peer-supported interventions, reduce stigma through awareness campaigns, and ensure culturally responsive and timely care. Policy alignment with WHO and UNESCO recommendations for trauma-informed practices, faculty training, and seamless referral pathways will be essential. By prioritizing mental health as a core component of student success, universities can foster resilient, thriving learning communities equipped to navigate the demands of higher education and beyond.

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