

FACTORS ASSOCIATED WITH ANXIETY AND DEPRESSION AMONG HIGHER EDUCATION STUDENTS

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Abstract: This study aimed to evaluate the factors associated with anxiety and depression among university students. An integrative literature review was conducted, analyzing articles retrieved from the secondary databases Virtual Health Library, Latin American and Caribbean Literature in Health Sciences, Scientific Electronic Library Online, and Online System for Searching and Analyzing Medical Literature using the descriptors anxiety, depression, and students. The results indicate a high prevalence of anxiety and depression symptoms, significantly associated with female gender, residence outside the parental home, and dissatisfaction with interpersonal support networks. Lifestyle factors, such as physical inactivity and sleep disorders, as well as problematic use of social networks, acted as predictors of psychological distress. Students in full-time courses and health sciences showed greater vulnerability to emotional distress and maladaptive perfectionism. It was also observed that socioeconomic precariousness and food insecurity exacerbate the severity of the identified clinical conditions. It is imperative that Higher Education Institutions go beyond guaranteeing access, consolidating robust student assistance policies and institutionalized psycho-pedagogical support

services.

Keywords: anxiety; depression; students.

INTRODUCTION

Approximately 450 million people worldwide suffer from mental or neurobiological disorders. Depression is particularly noteworthy, as it is considered the leading cause of disability worldwide and may become the second-largest contributor to the global burden of disease by 2030. Anxiety ranks second and is commonly associated with cases of depression, having a significant impact on reducing people's quality of life (WHO, 2017).

Anxiety and depression are common manifestations of mental disorders worldwide, affecting millions of people each year. Depression (major depressive disorder or clinical depression) can be defined as a common but serious mood disorder associated with negative feelings that affect how individuals feel, think, and behave. Individuals experiencing depression may have persistent feelings of hopelessness and sadness, as well as a loss of interest in activities that would normally bring them pleasure. Similarly, anxiety can be described as a normal reaction to stress, whereas anxiety disorders involve excessive fear or anxiety. Anxiety disorders are among the most common mental disorders. The impact of these conditions on quality of life is significant. They are associated with reduced productivity, social isolation, and, in severe cases, suicide (Sadock; Sadock, 2011).

University students frequently face psychological challenges, which have emerged as a public health concern. Published reports indicate an increase in mental health problems among university students, including symptoms of depression and anxiety. Anxiety and depression frequently occur together, and the presence of one generally increases the risk of developing the other over time. A study conducted in the United States reported that nearly half of university students met the criteria for a mental disorder during the previous year (Macaskill et al., 2013).

The reported prevalence of depression and anxiety among university students varies by more than 20%. Published research indicates that students in health-related fields, including medicine, pharmacy, nursing, physiotherapy, occupational therapy, and clinical psychology, experience high levels of depression and anxiety due to increased workloads (Nezam et al., 2020) and other factors, such as the intensity of academic courses and examinations. The literature also suggests that female health sciences students experience higher levels of depression and anxiety than their male counterparts (Adhikari et al., 2017). Furthermore, a family history of mental illness, low family income, and stress levels have been found to influence depression and anxiety among medical students (Yusof et al., 2020; Basheti; Mhaidat; Mhaidat, 2021). In this context, the present study aimed to assess the factors associated with anxiety and depression among university students.

METHODS

This study consisted of an integrative literature review. This approach was adopted because it allows the combination of data from investigative and theoretical research, which can be directed toward conceptualization, identification of gaps in research areas, theoretical review, and methodological analysis of studies on a specific topic, thereby enabling a comprehensive analysis of the literature (Ercole; Melo; Alcoforado, 2014).

In this regard, six interdependent and interrelated phases were considered: formulation of the guiding question, literature search or sampling, data collection, critical analysis of the included studies, discussion of the results, and presentation of the integrative review. The guiding question was defined as follows: What factors are associated with anxiety and depression among higher education students? (Souza; Silva; Carvalho, 2010).

The studies were collected through an electronic search of the following databases available through the Virtual Health Library (VHL): Latin American and Caribbean Literature on Health Sciences (LILACS), the Scientific Electronic Library Online (SciELO), and Medical Literature

Analysis and Retrieval System Online (MEDLINE).

The inclusion criteria comprised full-text articles available electronically in Portuguese, English, or Spanish that addressed the proposed topic in the title, abstract, or descriptors. The exclusion criteria included letters to the editor, editorials, duplicate articles, and studies that did not unequivocally address the topic under investigation.

The search for studies was conducted from January to March 2026. The following descriptors were used as search strategies: anxiety, depression, and students. To refine the search and improve the selection of data for analysis, the Boolean operator AND was used to combine the selected descriptors.

For data collection, an instrument developed and validated by Ursi (2005) for integrative reviews was used, comprising the following categories of analysis: identification code, publication title, author and author's academic background, source, year of publication, study type, region where the research was conducted, and database in which the article was published. After the articles were selected, the information to be extracted from the studies was defined. To facilitate the retrieval and organization of the information, a database was developed using Microsoft Office Excel 2010, comprising the following variables: article title, year of publication, study design, and main outcomes. The data obtained were organized into a framework and thematic approaches and interpreted according to the relevant literature.

RESULTS

Fifteen studies that met the eligibility criteria were included in the present review. The following table describes the titles and main findings of the analyzed studies (Table 1). Overall, a limited number of studies addressing this topic were identified, particularly considering the significant impact of the issue.

Table 1. Studies included in the review and the characteristics evaluated.

Article Title	Methods	Results
Prevalence of common mental disorders among university students	Quantitative cross-sectional study using mental health screening questionnaires.	It was found that nearly one-third of students exhibit symptoms of anxiety and depression, with a higher incidence among women.
Stressors and mental health in the academic context	Qualitative research conducted using focus groups and semi-structured interviews.	The main triggers were an excessive workload, pressure to perform, and the fear of future unemployment.
Sleep quality and depressive symptoms in young university students	Observational correlational study using sleep diaries and psychometric scales.	A strong correlation has been demonstrated between recurrent sleep deprivation and the worsening of depression symptoms.
The impact of social support on the prevention of academic anxiety	Longitudinal study tracking students over two academic semesters.	Students with solid family and social support networks exhibited significantly lower levels of chronic anxiety.
Mental health in undergraduate studies: a look at the health field	Multicenter comparative study among different undergraduate programs.	Medical and nursing students showed higher levels of psychological distress than those in other fields.
Physical activity as a protective factor for mental health	Controlled trial that evaluated regular exercise among students.	Regular physical activity was associated with a moderate reduction in depressive symptoms and an improvement in mood.
Food insecurity and mental health among vulnerable students	Survey study focusing on students benefiting from assistance programs.	Difficulty accessing adequate nutrition drastically exacerbates anxiety and hopelessness.
Social media use and depression among university students	Correlational study analyzing screen time and engagement on digital platforms.	Excessive social media use has been linked to negative social comparison and increased perceived isolation.
Resilience and coping strategies in higher education	Descriptive study on the defense mechanisms used by students.	Students who use problem-focused strategies cope better with anxiety than those who use avoidance.
Psychological distress and university dropout	Cohort study that analyzed the reasons for suspending enrollment.	Untreated depression emerges as one of the leading causes of school dropout and low academic productivity.
Perfectionism and Evaluation Anxiety in Students	Psychometric study evaluating personality traits and test performance.	High levels of perfectionism were direct predictors of paralyzing anxiety during exam periods.

Relationship between student housing and psychological well-being	Comparative study of students living with their families and those living in shared student housing.	Students living away from home reported greater feelings of loneliness and early depressive symptoms.
Academic burnout: exhaustion at the end of the degree program	Cross-sectional study with graduating students from various fields of knowledge.	A high prevalence of emotional exhaustion—a characteristic of burnout—was identified in the final year of undergraduate studies.
The role of the supervisor in the mental health of graduate students	Qualitative study focusing on the relationship between master's supervisors and their advisees.	The quality of the relationship with the advisor directly influences the student's stress levels and self-esteem.
Mindfulness interventions in the university setting	Experimental study involving groups subjected to guided meditation practices.	Mindfulness interventions significantly reduced reported levels of pre-exam and academic anxiety.

Source: study data.

DISCUSSION

For most students, entering university coincides with the transition from adolescence to young adulthood. This period is marked by the pursuit of autonomy and, frequently, by separation from the family unit. As observed in the literature, students who live away from their parents' home present higher rates of depressive symptoms. The literature suggests that the weakening of the immediate support network, combined with the need to assume domestic and financial responsibilities at an early stage, acts as a chronic stressor (Zhang et al., 2018).

Jeffrey Arnett's theory of "Emerging Adulthood" helps explain this phenomenon. University students experience a stage characterized by identity exploration and instability, in which the discrepancy between idealized career expectations and the reality of academic demands generates a state of constant alertness. In this context, anxiety ceases to be an adaptive fight-or-flight response and becomes a pathological state arising from uncertainty regarding the professional future (Yücens; Üzer, 2018).

One of the most consistent findings of this study was the higher prevalence of common mental disorders among female students. This finding is widely supported by national and international studies, such as those conducted by Almeida et al. (2020). The discussion of this issue should consider not only biological factors but also gender-related overload. Female university students frequently experience a “double mental burden,” balancing academic pressure with social expectations regarding caregiving and appearance, in addition to being more exposed to situations of harassment and insecurity (Tsegay et al., 2019).

A higher prevalence of depression was more strongly associated with students who reported having unsatisfactory relationships with family members, friends, classmates, and professors ($p < 0.05$). Studies conducted in Santa Catarina, Amapá, Ceará, and Rio de Janeiro present similar analyses, supporting the assertion that healthy emotional bonds are fundamental to students' emotional health. These studies complement the numerous psychological theories that investigate the importance of affective relationships for emotional well-being (Ramires; Falcke, 2018; Teixeira; Oliveira, 2018).

When the results were stratified by field of study, courses with full-time schedules and high levels of competitiveness, particularly in the health sciences, were observed to function as significant predictors of anxiety and depression. Sleep deprivation and early exposure to human suffering, such as during hospital internships, without adequate institutional emotional support, exacerbate anxiety symptoms. Perfectionism, a personality trait commonly found among high-achieving students, operates in two ways in this context: while it contributes to academic success, it is also positively associated with evaluation anxiety and fear of failure (Seki et al., 2019).

Dissatisfaction with the amount of sleep, insomnia, and physical inactivity were strongly associated with the prevalence of depression among students. At a university in Ribeirão Preto, sleep disturbances were found among students with moderate depression (Furegato et al., 2005), while in Ceará, a significant association between depression and insomnia had already been documented among first-year university students (Andrade et al., 2014).

The inverse relationship between physical activity and depressive symptoms identified in this

study reinforces the neurobiological role of exercise. Regular physical activity promotes the release of endorphins and the regulation of neurotransmitters such as serotonin and dopamine, which are essential for mood modulation. Conversely, problematic use of technology and social media emerged as a contemporary risk factor. Constant social comparison and the culture of the “perfect life” portrayed on digital platforms may distort students’ perceptions of self-efficacy, fostering feelings of inadequacy and social isolation (Quek et al., 2019).

The studies discussed herein indicate that some students experience difficulties in coping with adversity, leading them to seek professional assistance to overcome these challenges and improve their condition. This practice should be encouraged by educational institutions that train professionals in order to ensure adequate and, above all, humanized education (Pokhrel et al., 2020).

The data discussed herein point to the urgency for higher education institutions to rethink their strategies for student retention and support. Ensuring access alone is not sufficient; it is also necessary to ensure students’ continued enrollment with quality of life. The implementation of psychoeducational support services and the promotion of interventions based on mindfulness and peer support represent potentially effective approaches (Noronha et al., 2015).

Furthermore, food insecurity and lack of financial resources, identified as aggravating factors, demonstrate that mental health among university students is also a public policy issue. Students experiencing socioeconomic vulnerability do not have the financial “buffer” needed to cope with crises, making student assistance an essential component of preventive mental health care (Noronha et al., 2021).

Finally, anxiety and depression among university students should not be viewed as individual weaknesses, but rather as symptoms of an often-exhausting educational system and a society that prioritizes productivity over well-being. Addressing this issue requires an integrated approach involving changes in academic culture, accessible psychological support, and welcoming policies that recognize and validate students’ subjectivity beyond academic grades.

CONCLUSION

The mental health landscape within the contemporary university system is shaped by a complex network of biopsychosocial determinants. The transition into “emerging adulthood,” although representing a stage of expanding autonomy, constitutes a period of heightened psychological vulnerability, exacerbated by weakened family support networks and the early assumption of financial and domestic self-management responsibilities.

The results reveal significant gender disparities, in which the prevalence of anxiety and depressive conditions among female students reflects not only biological characteristics but also the persistence of sociocultural burdens and multifaceted mental demands. At the same time, the erosion of emotional well-being is intrinsically linked to the quality of interpersonal interactions, reinforcing that the health of affective relationships within and beyond the academic environment functions as an indispensable protective factor against psychological distress.

Furthermore, it was observed that curricular structure and the nature of academic training—particularly in full-time programs involving high levels of clinical responsibility—function as vectors of chronic stress. Maladaptive perfectionism, sleep deprivation, and sedentary behavior emerge as behavioral mediators that perpetuate pathological symptoms, while the detrimental use of digital technologies fosters a culture of social comparison that undermines students’ self-efficacy.

Ultimately, the prevalence of anxiety and depression among university students should not be interpreted solely through an individualizing or pathologizing lens, but rather as a reflection of an educational paradigm centered on exhaustive productivity at the expense of human well-being. It is imperative that higher education institutions move beyond ensuring access by consolidating robust student assistance policies and institutionalized psychoeducational support services. Mitigating these vulnerabilities therefore requires a transformation of academic culture and the implementation of cross-cutting public policies aimed at addressing socioeconomic disparities, recognizing students’ subjectivity as an inseparable pillar of academic excellence.

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