

Relationship between academic stress, eating disorders and mental health in University Students

—

Marisol de Jesús Mancilla Gallardo¹ • marisol.gallardo@unach.mx
ORCID: 0000-0001-5344-9686

Rita Virginia Ramos Castro¹ • rvramos@unach.mx
ORCID: 0000-0002-7896-3857

Verónica Concepción Castellanos León¹ • veronica.castellanos@unach.mx
ORCID: 0000-0003-3670-5988

Marisol García Cancino¹ • marisol.garcia@unach.mx
ORCID: 0000-0001-7159-9899

Elisa Gutiérrez Gordillo¹ • elisag@unach.mx
ORCID: 0000-0002-7576-4684

1 FACULTY OF HUMANITIES CVI. UNIVERSIDAD AUTÓNOMA DE CHIAPAS. TUXTLA
GUTIÉRREZ, CHIAPAS. MEXICO.



To quote this article:

Mancilla Gallardo, M. de J., Ramos Castro, R. V., Castellanos León, V. C., García Cancino, M., & Gutiérrez Gordillo, E. Relación entre el estrés académico, trastornos alimenticios y salud mental en Estudiantes Universitarios. *Espacio I+D, Innovación más Desarrollo*, 15(43). <https://doi.org/10.31644/IMASD.43.2026.a09>

— Abstract —

The text presents an analysis of academic stress, eating disorders, and mental health among undergraduate students in the Pedagogy and Information and Communication Technologies Applied to Education program at the Faculty of Humanities, Autonomous University of Chiapas. It is understood that academic stress is one of the primary sources of discomfort for university students, stemming from the constant pressure to meet academic demands. This situation affects emotional management, leading to problems such as anxiety, low self-esteem, and difficulties in relationships. In some cases, excessive stress can cause mental health imbalances, manifesting in disorders such as generalized anxiety and eating disorders. These situations can trigger self-harming behaviors, aggression, and even school dropout, which prompted the investigation with the aforementioned students.

The average age of the participants is 23 years, with a notable gender disparity (67.7% men and 32.3% women). Regarding academic stress, moderate levels are more common in the early semesters, while high and very high levels dominate in advanced semesters, particularly in the seventh and eighth semesters.

In terms of eating disorders, moderate and low levels are the most frequent, but very high levels increase in more advanced semesters. Regarding mental health, a balanced distribution is reported across different levels, although women tend to show lower mental health indicators.

No significant correlation was found between emotional levels and stress, nor between academic stress and digestive symptoms. However, a moderate negative correlation was identified, suggesting that better emotional well-being is linked to a lower prevalence of digestive symptoms.

Keywords:

Academic stress; mental health; emotions; eating disorders.

Stress is regarded as a primary source of emotions across all human activities and has been a key focus for researchers in various fields of knowledge. In recent years, the interest of numerous researchers has centered on specific populations, such as university students.

Various theories, including the transactional theory, posit that stress is a cognitive event in which the individual evaluates it as a source of opportunity or as a threat. Meanwhile, Lazarus's theory (1991), as cited by Gil (2016), describes it as an evaluative process linked to decision-making itself, which is tied to emotions. However, Calixto-González (2019) notes that for McEwen (2000), it represents a real or imagined threat to physical or psychological integrity, prompting a behavioral or physiological response.

Meanwhile, academic stress, according to the World Health Organization (WHO, 2021), involves the physiological, emotional, cognitive, and behavioral activation in response to academic stimuli and events. Mental health, in turn, is an essential component of overall health and must be promoted and protected accordingly. Numerous studies have shown that university students face high levels of academic stress, which can have a negative impact.

The purpose of this work was to reflect on the relationship between academic stress, eating disorders, and emotions in the mental health of students from the Pedagogy and TICAE degree programs at UNACH. Academic stress is an inherent reality of university life and has become a widely studied phenomenon due to its impact on students' mental health. The Pedagogy degree at the Universidad Autónoma de Chiapas (UNACH) is no exception, as students face challenges that extend beyond academic demands. Following the return to in-person classes after the pandemic, an increase has been observed in disruptive behaviors, emotional crises, and demotivation, raising questions about how academic stress is influencing students' emotional stability and psychological well-being. Despite advances in understanding this topic, there remains a need to better comprehend the relationship between academic stress and mental health in this specific context, particularly among students in the Pedagogy and Information and Communication Technologies (TICAE) degree programs.

DEVELOPMENT

This section addresses mental health as a crucial element for the overall well-being of university students, where academic, personal, and social challenges converge to influence their performance and quality of life. Drawing on an analysis of various academic sources, it highlights definitions of mental health provided by international organizations such as the World Health Organization (WHO) and the Pan American Health Organization (PAOH), along with legal and research perspectives that underscore the importance of protecting and promoting emotional and psychological stability.

This section outlines the main threats faced by university students, such as academic stress, workload-related demands, exams, and eating disorders – including anorexia, bulimia, and binge-eating disorder. These conditions not only affect physical health but also produce significant impacts on mental health, exacerbating issues like anxiety and depression.

Mental health interferes with daily activities; therefore, it is essential to safeguard it in order to maintain a good quality of life, particularly in the university setting, as it fosters academic performance and the fulfillment of academic responsibilities. Various authors analyze mental health from psychological and psychiatric perspectives, including the World Health Organization (WHO, 2022), which defines mental health as “a state of mental well-being that enables people to cope with the stress of life, develop their abilities, learn and work adequately, and contribute to their community” (para. 1). This allows individuals to develop and strengthen their capacities and skills, as well as apply them in professional and social contexts, while also enabling sound decision-making, meaningful relationships with others, and the ability to confront the situations or challenges that may rise.

From Miranda’s (2018) perspective, mental health is viewed as “a state or condition of the of the individual, a field -conceptual and practical- within public health, a series of psychiatric pathologies and psychosocial problems” (p.86). Therefore, mental health is related to the well-being of the person and the absence of psychosocial problems, it is important to mention that mental health is closely linked to physical health, for instance, a person experiencing a depressive state may present symptoms such as lack of appetite, increase or absence of sleep appear, as noted by the Pan American Health Organization (PAHO, 2020) when saying as a motto “There is no health without mental health” (paragraph 1). Nevertheless, emotions play a significant role in mental health; therefore, it is necessary to have good management of emotions to maintain good mental and emotional stability.

The subject of health has been reflected in legislation, as noted by the Ministry of Health and Social Protection (2013) of Colombia, which, in accordance with one of its laws, defines mental health as:

a dynamic state expressed in everyday life through behavior and interaction, in such a way that enables individuals and groups to deploy their emotional, cognitive, and mental resources to navigate daily life, to work, to establish meaningful relationships, and to contribute to the community (Law 1616 of 2013).

This definition takes into account mental health, personal relationships, and the environment, as well as thoughts and beliefs, while also recognizing the role of society, which determines how a person will shape an individual’s mental health. It is further worth noting that research has been conducted on mental health, for example, Cuamba and Zazueta (2020), whose study, entitled Mental Health, Coping Skills, and Academic Performance in University Students, found, through the

Level 1 Cross-Cutting Symptom Measure of the DSM-5 and the Coping Strategies Inventory (CSI), that half of the students presented mental health problems and difficulties in the execution of coping skills.

Main threats

There are threats that jeopardize good mental health, such as “insecurity, hopelessness, rapid social change, risks of violence, problems affecting physical health, personal factors and experiences, social interaction, cultural values, and family, school, and work experiences, which are some of the elements that affect it” (Fundación UNAM, 2019, para. 2). These can negatively impact mental health, for example, poverty, which, due to a lack of financial resources, lowers a person’s self-esteem and motivation; or, if a person constantly experiences situations of violence, they tend to present emotions such as fear, sadness, despair, anguish, and anger. Furthermore, when individuals lack the means to confront or resolve these situations, not only is their mental health damaged, but mental disorders may also emerge, the latter being defined as “a clinically significant disturbance in an individual’s cognition, emotional regulation or behavior” (WHO, 2022, para. 1).

There are various disorders that jeopardize mental health; however, the most common are depression and anxiety. In the case of the former, “the person experiences a depressed mood (sadness, irritability, feeling of emptiness) or a loss of pleasure or interest in activities” (WHO, 2022, para. 4), and in the most severe cases, suicide may occur. According to WHO (2022), “In 2019, 280 million people suffered from depression, including 23 million children and adolescents” (para. 4). This is particularly relevant given that children and adolescents (the majority of whom are students) are among those affected by this disorder, as they face concerns related to fulfilling academic, daily, and even work-related responsibilities. On the other hand, anxiety refers to “fear and excessive worry and related behavioral disturbances. The symptoms are severe enough to cause distress” (WHO, 2022, p.3), and WHO (2022) states that “In 2019, 301 million people suffered from anxiety disorder, including 58 million children and adolescents” (para. 3). It should also be noted that Cuenca, Robladillo, Meneses, and Suyo (2020), in their study on mental health in Latin America university adolescents, a systematic review, found that women tend to present mental disorders and stress-related conditions first.

Challenges

Mental health is a human right; therefore, its primary challenge lies in its own protection, which must be supported through plans and programs aimed at eradicating the problem. Equally important is the need for specialized areas within school, particularly universities, dedicated to addressing mental health issues, staffed with psychologists or psychopedagogical counseling services, as is the case at UNACH, which provide support for psychoemotional difficulties and for students at risk

of dropout or program abandonment. Ultimately, the foremost challenges facing mental health are raising awareness within society and educational institutions.

Academic Stress

Stress is a factor experienced by the majority of the population in daily situations, with the distinction that it occurs under pressure; however, in the academic environment it manifests more frequently, particularly among university students. Academic stress “emerges from an interaction between environmental stressors and student reactions, and is associated with frustration and academic failure” (Tirado et al., 2023, p.1). Stress represents one of the main causes of harm to university students’ mental health, as evidenced by Carreón et al.’s (2023) research on academic stress and mental health issues in nursing students during the COVID-19 pandemic. Their findings revealed that university students at moderate stress levels presented mental health problems along with severe manifestations of anxiety, depression, and insomnia, establishing the need to create educational strategies and training programs to reduce these disorders that compromise nursing students’ mental health.

Causes

Multiple causes can trigger stress that encompasses not only academic dimensions but also personal and family aspects. It should be noted that these causes depend on age, gender, social environment, behavior, academic major, and coping strategies. “When discussing academic stress, the causative factors can be numerous, if simply entering university is already stressful, continued enrollment and daily obligations can induce stress” (Sarubbi de Rearte & Castaldo, 2013, p.292). Regardless of the specific causes of stress, they will ultimately harm both mental and physical health. Before discussing the causes, it is important to note that academic stress can affect students in various ways, whether personally or within the family. Nevertheless, “It is also viewed as the pressure that helps one face and overcome unpleasant or painful situations. A certain amount of stress is not bad, since it allows one to face challenges and stay motivated.” (Sarubbi de Rearte & Castaldo, 2013, p.293). Among the identified causes of academic stress are the following:

Workload

This cause is one of the main triggers of academic stress. It refers to the excessive number of activities performed by a single person, but in the educational context, students must dedicate a certain amount of time to studying and completing their assignments. Therefore, they must conduct a literature review or information search to be able to understand the course assignment. As García and García (2017) express, “The expected workload, by modules, subjects or subjects, is used in the design of the study plans” (p.84). It should be remembered that academic assignments must

provide learning, promote research, and foster study habits. It is not only about offering students skills but also about measuring the quantity of assignments so that they can enjoy their studies and safeguard their mental health.

Exams

An exam is a written or oral test administered to students to assess what they have learned during the course; as a result, students must study for days or weeks to take the exam and try to earn good grades, which can lead to high levels of stress and negatively impact their mental health. From another perspective, “Assessment can be understood in various ways, depending on the needs, purposes, or objectives of the educational institution; such as: monitoring and measurement, assessing the validity of the objective, and accountability, to name a few purposes.” (Mora, 2004, p.2).

It is recommended to use other types of assessments, such as individual or group final projects, portfolios, essays, or simply evaluating students based on their work throughout the course, because “school exams are typically viewed and experienced by students as a threat, as a distressing and unpleasant experience.” (Pérez, 2006, p. 7) Therefore, eliminating exams would reduce stress among college students.

There are also other causes of academic stress, as stated in the research by Londoño et al. (2024), which found that in addition to an overload of schoolwork and taking exams, a teacher’s lack of methodological skills is also a cause of academic stress; furthermore, “when school-related stress is excessive, psychological problems may develop, particularly certain mental health disorders” (Maturana & Vargas, 2015, p. 37). Consequently, mental health is affected by factors related to academic stress; therefore, it is important to take measures to prevent the onset of mental disorders in students by reducing activities that may be considered stressful.

Academic requirements

Throughout their university journey, students face situations that require them to complete assignments or projects, give presentations, conduct research, and take exams—not to mention their class schedules. All of these are academic demands that, as Huaquín and Loaíza (2004) note, “act as curricular stressors or stimuli that elicit responses specifically known as student stress.” (para. 7) These demands will always come from the teacher, because they are responsible for ensuring that their students achieve the expected learning outcomes; therefore, they must require students to complete the activities they assign, attend class, and pay attention. Students even demand that their peers complete school projects or presentations, as noted by Flores (n.d.):

Academic demand reflects the rigor the intensity with which academic activities are carried out, and it is the result from an unique combination of various factors,

including faculty (teaching skills, preparation, enthusiasm), students (vocation, motivation, conditions), institutional policies, the learning environment, program design, and learning assessment. (p. 2)

Academic demands cause stress among students, leading to widespread anxiety, which can affect their well-being and, consequently, their mental health.

Eating disorders

Before examining eating disorders, it is important to note that eating behavior is defined as: “normal behavior related to eating habits, the selection of foods consumed, food preparation, and the quantities consumed.” (Osorio, Weisstaub, & Castillo, 2002, para. 1). When discussing eating disorders, we refer to a disruption in eating behavior that completely affects physical and mental health; furthermore, they can be life-threatening if not treated in time, and they are also “characterized by abnormalities in eating habits that may involve either insufficient or excessive food intake, affecting the individual’s physical and emotional health.” (Tabárez, 2016, p.16); it is adolescents who most commonly suffer from these types of disorders, often influenced by social media or school experiences where they receive negative comments about their bodies; which leads them to begin devising ways to achieve the perfect body.

A large proportion of adolescent girls suffering from these disorders do not seek treatment directly because, in general, their awareness of the illness and motivation to change are scarce, even though their physical and psychological health is severely threatened by the disease (López & Treasure, 2011, p. 86).

Eating disorders are considered mental health illnesses that are often identified by family members, friends, and teachers. These are illnesses that become chronic over time, manifesting as changes in eating habits and excessive exercise; they even affect social relationships and daily activities. There are three types of disorder that affect a person in different ways. They require a diagnosis, medical and psychological treatment, and even help of a nutritionist to provide the individual with a diet that helps them recover a healthy lifestyle.

Anorexia

Known as anorexia nervosa, it affects eating habits; the person reduces the frequency and portions they eat in order to lose weight, in other words, they suppress their appetite despite feeling hungry; these individuals refuse to eat even a single bite. It has also been shown that people with anorexia experience emotional problems such as depression stemming from a desire to have the ideal body or to

be accepted by a society that promotes ideologies about the perfect body. Nuñez et al. (1995) describe anorexia nervosa as:

It can be considered the final stage of a continuous process that begins with conscious weight loss for aesthetic reasons, progresses through a phase of neurotic preoccupation with weight and food intake, and culminates in a condition characterized by uncontrollable eating behavior and a clear distortion in the perception of one's body image. (p. 9)

Most people who experience anorexia are adolescent females who seek to look good through weight loss. García and Murray (2023) reveal that: They show a peak incidence between 14-19 years of age, with a predominance among females; however, an increase in frequency is observed at younger ages (school age). (p. 520) From an early age, girls begin to fixate on the idea of being perfect, harming themselves physically and mentally; therefore, living in these types of situations is often stressful for them.

Bulimia and Binge Eating Disorder

This disorder is similar to anorexia, with the difference that the person consumes large quantities of food and subsequently induces vomiting in order to avoid weight gain. It is difficult to detect because most people who suffer from it keep it secret due to shame or fear of what others will say about them. In the words of Sierra (2005):

the essential features of bulimia nervosa include binge eating and inappropriate compensatory behaviors (self-induced vomiting, misuse of laxatives, diuretics, or other medications, fasting, or excessive exercise) to prevent weight gain (employed on average twice weekly for a minimum of three months) (p.80).

Bulimia can trigger mental disorders including depression and anxiety stemming from the compulsive need to induce vomiting to control weight. This disorder poses significant danger as it affects major bodily systems, particularly the stomach, which without timely intervention can lead to death. Moreover, the Secretariat of Health (2017) reported that “approximately 20,000 cases of anorexia and bulimia are registered annually in Mexico, with individuals aged 15 to 19 being most affected” (para. 1). Educational institutions from elementary through tertiary levels must implement awareness programs addressing these disorders that can severely compromise the mental stability of adolescents and young adults who become preoccupied with weight management through harmful practices at the expense of their academic and personal pursuits.

Unlike the aforementioned disorders, binge eating disorder is characterized by the consumption of excessive amounts of food within brief timeframes. Sufferers do

not monitor caloric intake but subsequently experience profound guilt following binge episodes. Individuals with this disorder typically present with overweight or obesity. “Binge eating disorders is formally recognized in the DSM-5 as a feeding and eating disorder and is considered the most prevalent among obese populations, with its incidence rapidly increasing relative to other disorders in the general population” (Cuadro & Baile, 2015, p.97).

People with this disorder exhibit no control over their eating habits, failing to experience satiety after food consumption. The Secretariat of Health (2016) reports that for every two men presenting with this disorder, an estimated three women are also affected, predominantly over 30 years of age, with prevalence reaching 25 to 30 percent among the obese or overweight population (para. 3). Medical and psychological intervention is required to mitigate binge eating symptoms.

Mental health among university students is crucial for optimal academic performance; however, throughout their academic journey they face circumstances that progressively compromise their mental well-being, particularly academic stress resulting from pressure to meet academic, personal, and often professional obligations. Furthermore, female students experience eating disorders that compound mental health deterioration. Consequently, educational institutions must implement awareness programs addressing mental health care in relation to the challenges that may affect it, as well as eating disorders, to ensure students sustain mental stability throughout their degree programs.

METHODOLOGY

This research is descriptive-interpretative in nature, which involved, in the first stage, the search and selection of background information and theoretical foundations on mental health and academic stress; in a second stage, fieldwork consisting of the administration of a survey; and in a third stage, the description and analysis of the collected information. The instrument employed was a questionnaire, administered as a survey, consisting of 67 items divided into four dimensions: emotions, addictions, eating disorders, and stress. The survey was administered through Google Forms, and data analysis was carried out using SPSS Statistics version 21.

The research subjects were 235 students enrolled in the Bachelor’s degree program in Pedagogy and Information and Communication Technologies Applied to Education (TICAE) at the Universidad Autónoma de Chiapas (UNACH), located in Tuxtla Gutiérrez, Chiapas, Mexico. Regarding the diversity of ages, a significant range was observed, from a minimum of 17 years to a maximum of 56 years. This broad spectrum reflects the heterogeneity present in the student population of the faculty. The average age of the students is 23.3 years.

The results of the item reliability for the various categories of analysis related to stress and mental health among Pedagogy and TICAE students are presented as follows:

The analysis category “Emotions” shows high reliability with a Cronbach’s Alpha coefficient of 0.94. This result indicates substantial internal consistency among the items related to emotions in the measurement.

The “Eating Disorders” analysis category exhibits exceptionally high reliability, with a Cronbach’s alpha coefficient of 0.96. This suggests strong and reliable internal consistency in the measurement of items associated with eating disorders.

The “Stress” and “Mental Health” analysis categories exhibit high reliability, with a Cronbach’s alpha coefficient of 0.94. This indicates robust internal consistency among the stress-related items in the evaluation.

The results suggest that the items related to emotions, eating disorders, and stress in the evaluation demonstrate robust and reliable internal consistency. The exceptionally high reliability in the “Eating Disorders” category suggests that the items associated with this dimension are particularly consistent with one another in their measurement. These findings support the internal validity of the measurement tool used to evaluate stress and mental health in Pedagogy and TICAE students.

RESULTS

The study examined the impact of academic stress, emotions, eating disorders, and mental health on college students, taking into account differences in age, gender, and semester. With a sample of 235 participants—mostly men (67.7%) with an average age of 23.3 years—the analysis provided a detailed overview of the emotional and health dynamics faced by young people in academic settings.

This analysis provides a comprehensive overview of how perceptions of academic stress vary across different age groups, which is crucial for understanding the dynamics of academic stress among students.

First, regarding academic stress by gender, the overall distribution of the sample shows a higher proportion of male participants, accounting for 67.7%, compared to 32.3% of female participants.

Among male participants, 20.8% experience low levels of stress, while 27.7% report moderate levels, 23.9% report high levels, and another 27.7% experience very high levels of stress. In contrast, among female participants, 38.2% report low levels of stress, 19.7% moderate levels, 25.0% high levels, and 17.1% experience very high levels.

These results indicate that in general, women tend to experience lower levels of stress compared to men. A significantly higher proportion of women fall into the “Low Stress” category, while a smaller proportion fall into the “Moderate” and “Very High Stress” categories compared to men.

These gender differences in the perception of stress are notable and suggest that the impact of stress may vary between men and women in the study population. These findings underscore the importance of considering gender when developing intervention strategies and programs that address stress and promote psychological

well-being, taking into account the specific needs of each group. These results also provide a valuable foundation for future research exploring the underlying causes of these differences and their relevance in specific contexts.

An analysis of academic stress by semester reveals significant variations throughout the college experience, with notable differences in the prevalence of stress levels. In the first semester, moderate and low stress stand out as the predominant categories, each affecting 34% of students, while high and very high levels have a lower incidence (18% and 14%, respectively). This indicates an initial phase in which adaptation is challenging but manageable.

However, in the second semester, a notable shift occurs: very high stress becomes the most prevalent category at 33.3%, followed by moderate stress (27.3%). This increase in stress can be attributed to students adapting to academic demands and adjusting to the university environment.

In the third semester, moderate stress levels were again prevalent (28.6%), although very high stress levels remained significant (31%), indicating that the demands remain constant.

The fourth semester is notable for the high prevalence of high stress levels (37.5%), while low and moderate stress levels each account for 25% of the total, suggesting a significant increase in academic pressure.

The fifth semester shows a more even distribution across all categories, with moderate and very high stress levels reaching 22.2% and 31.1%, respectively, indicating a fluctuating balance between academic workload and adaptation.

In the sixth semester, high stress levels reach a significant peak (80%), making it the most critical semester in terms of academic pressure.

In the seventh semester, moderate (30.4%) and high (34.8%) stress levels are predominant, while very high stress remains significant (26.1%), indicating an advanced but still intense phase in terms of academic workload.

Finally, in the eighth semester, moderate (31%) and high (34.5%) stress levels remain the predominant categories, showing a notable balance compared to other semesters.

In this category, moderate stress is the most common condition across all semesters, accounting for 26.4% of the total. However, peaks of high and very high stress in specific semesters, such as the second and sixth, highlight the need for targeted interventions during these critical periods to mitigate the impact of stress on students' mental health and academic performance.

Emotions

Emotions are complex psychophysiological responses to stimuli that have both a subjective component and an objective expression. They are subjective experiences that arise in response to internal or external stimuli and are typically accompanied by physiological changes, facial expressions, behavioral responses, and specific cognitive patterns.

Emotions can also be complex and varied, combining aspects of basic emotions. For instance, envy may be a combination of sadness and displeasure, and love may involve joy, affection, and other emotional components.

The results presented offer a comprehensive overview of college students' emotional well-being based on various factors such as age, gender, and academic semester, using the Emotional Scale for University Students. Through this assessment, significant patterns and notable differences in participants' emotional responses are identified.

Emotions by Age Group

Students in the 17- to 21-year-old group, accounting for 55.7% of the sample, represent the majority in this study. This group shows an even distribution across the different emotional scales, with the “Very High” category standing out at 59%. This data suggests that younger students experience high levels of intense emotions, such as stress and frustration, which could be related to the transition to college life and academic pressure.

In contrast, the 22- to 26-year-old group shows a slight tendency toward the “High” scale, at 34.4%, indicating relative stability, though still with a considerable level of stress. As students get older, the number of participants decreases progressively. In the 27- to 31-year-old group, the “Moderate” scale predominates at 8.3%, reflecting a more balanced management of emotions, likely due to acquired maturity.

Older age groups, such as those aged 32 to 36 and older, tend to report lower or moderate emotional levels, with “Low” and “Moderate” being the most common categories. This could suggest that older students have better strategies for coping with academic demands or face different emotional challenges.

Emotions by gender

Analysis by gender reveals notable differences. Among men, the “Moderate” category is the most common, at 34%, followed by “High” at 27%. This indicates that men tend to experience less extreme and more stable emotions.

On the other hand, among women, the “Very High” category predominates at 27.6%, followed by “High” at 23.7%. This data suggests that women tend to experience more intense emotions, which could be related to social, academic, or personal factors that expose them to higher levels of stress and anxiety.

Overall, the “Moderate” scale is the most common among both genders, accounting for 30.6%, although women's tendency toward higher emotional levels highlights a significant disparity that warrants attention.

Emotions by Academic Semester

The distribution of emotions varies considerably across academic semesters. In the first semester, the “Moderate” scale is the most common, with 34% of responses, suggesting an initial adjustment period with relatively manageable emotional levels. In the second semester, the “High” scale increases significantly to 30.3%, indicating an increase in academic pressure.

In the fifth semester, the “High” category remains the most common at 33.3%, reflecting the accumulated workload and increased academic responsibilities. In the sixth semester, although the proportion is lower, the majority fall into the “Moderate” category (60%), which may indicate a slight stabilization before the final semesters.

The seventh and eighth semesters show a significant increase in the “Very High” category, at 39.1% and 20.7% respectively, indicating that the final stretch of the program involves higher levels of stress and pressure, possibly due to the completion of the degree, thesis defense, and the approaching graduation.

The results reflect significant emotional variability across different age groups, genders, and semesters, without a clear predictable trend. This underscores the importance of monitoring and supporting emotional well-being throughout one’s academic life, as emotions do not follow a uniform pattern but fluctuate depending on various contextual and personal factors.

Eating Disorders

Eating disorders are conditions that affect a person’s relationship with food and their body; among the most significant are anorexia nervosa, bulimia, and binge-eating disorder.

Distribution by Age Group

Among young people aged 17 to 21, moderate (26.0%) and high (29.8%) levels of eating disorders stand out, while low and very high levels have a lower prevalence. In the 22- to 26-year-old age group, the moderate level predominates (32.8%), followed by the low level (31.3%). Starting at age 27, a higher prevalence of the low level is observed, peaking in the 27–31 age group (57.1%) and the 42–46 age group (57.1%). In older adults, the very high level becomes significant, especially in the 47–51 age group (50.0%) and the single case in the 52–56 age group.

Relationship to gender

Among men, the high (25.2%) and moderate (24.5%) levels are the most common, with a more balanced distribution across all categories. Among women, moderate (30.3%) and low (31.6%) levels dominate, while the very high level is less prevalent (11.8%). Overall, the moderate level is the most common among both genders (28.1%).

Relationship with Academic Semesters

In the early semesters, moderate and mild eating disorders are more prevalent. However, toward the later semesters (seventh and eighth), the very high level becomes more prominent, reaching 39.1% in the seventh semester. This progression suggests a shift in patterns as academic training progresses.

Moderate eating disorders are the most common across all analyzed variables, accounting for 28.1% of the total, while low and high levels also have a significant presence. There is notable variability across age groups, gender, and semesters, reflecting differences in the factors associated with these categories.

Mental Health

Mental health encompasses a broad spectrum that includes managing emotions, preventing and treating mental disorders, and promoting healthy relationships and a sense of overall well-being. By recognizing the interconnectedness of emotions, eating disorders, and mental health as a whole, we can work toward a holistic approach that promotes a fulfilling and balanced life.

Relationship with age groups

Among young people aged 17 to 26, the “High” mental health category is the most common, with percentages close to 28%, accompanied by a balanced distribution across the other categories. Among adults aged 27 to 41, Low and Moderate mental health predominate, especially in the 27- to 31-year-old group (57.1% in Low) and the 37- to 41-year-old group (44.4% in Moderate). In older age groups (42 and older), the Low, Moderate, and Very High categories are similarly represented, except in the 52–56 age group, where only the High category is observed.

Relationship to gender

Among men, the “High” mental health category leads with 27.4%, while among women, the “Low” category predominates (30.3%). The “Moderate” and “Very High” categories show similar distributions across both genders, with a slight preference for the “Very High” category among men (26.8%) compared to women (18.4%).

Relationship to the Academic Semester

In the first semesters, “Moderate” mental health is predominant (32.7% in the first semester), but the “High” category becomes more prevalent in the second semester (28.1%). Toward the final semesters, the Very High and Low categories gain greater

prominence, reaching 47.8% and 30.4%, respectively, in the seventh semester. In the eighth semester, the Moderate (34.5%) and High (27.6%) categories lead.

Mental health is distributed relatively evenly across the categories of Low, Moderate, High, and Very High, although it varies by age group, gender, and academic semester. The Moderate and High levels are the most common overall, while the Very High level becomes more prevalent as students progress to later stages of both age and academic career.

Stress and Mental Health

In the university setting, the link between stress and mental health is particularly evident. College students often face academic, social, and personal challenges that can lead to high levels of stress. The pressure to meet academic expectations, deadlines, competition among peers, and adjusting to a new and demanding environment can all contribute significantly to stress.

This constant pressure can take a toll on college students' mental health. The link between stress and mental health is reflected in an increased risk of disorders such as anxiety and depression, as well as in the exacerbation of pre-existing issues. Furthermore, academic stress can affect sleep quality, concentration, and decision-making, negatively impacting academic performance and overall quality of life.

CORRELATION BETWEEN STRESS, EMOTIONS AND MENTAL HEALTH

The results of the correlation analysis between the variables “Emotions Scale,” “Stress Scale,” and “Digestive Disorders Scale” in a sample of 235 individuals, using Spearman's correlation coefficient.

The correlation between the “Emotions Scale” and the “Stress Scale” revealed a low correlation coefficient (0.003), with no statistical significance ($p = 0.962$). In other words, no appreciable linear relationship was found between these two variables in the analyzed sample.

In the sixth semester, the Moderate mental health category is the most prevalent (40.0%), followed by the Low (20.0%), High (20.0%), and Very High (20.0%) categories.

In the seventh semester, the “Very High” mental health category is the most common (47.8%), followed by the “Low” (30.4%), “Moderate” (4.3%), and “High” (17.4%) categories.

In the eighth semester, the Moderate (34.5%) and High (27.6%) mental health categories are the most prevalent, followed by the Low (13.8%) and Very High (24.1%) categories.

Overall, the distribution of the mental health scale shows variability across the different semesters. The Moderate mental health category is the most common, accounting for 24.0% of all students. The overall distribution of mental health across the four categories is relatively even.

Stress and Mental Health

In the university environment, the correlation between stress and mental health is prominently manifested. University students often face academic, social, and personal challenges that can lead to high levels of stress. The pressure to meet academic expectations, deadlines, peer competition, and adapting to a new and demanding environment can all contribute significantly to stress.

This constant pressure can have repercussions on college students' mental health. The relationship between stress and mental health is reflected in an increased risk of disorders such as anxiety and depression, as well as in the exacerbation of pre-existing problems. Furthermore, academic stress can affect sleep quality, concentration, and decision-making, negatively impacting academic performance and overall quality of life.

CONCLUSIONS

The average age of the students is 23.3 years, with a moderate range, indicating a wide variety of ages, which may influence differences in stress levels and mental health. The majority are men (67.7%), with a notable difference compared to women (32.3%).

Regarding academic stress: moderate and high stress levels are predominant in almost all age groups and semesters. In the early semesters, moderate stress is more common, while high and very high levels are more frequent in advanced semesters, particularly in the seventh and eighth semesters.

Regarding eating disorders: Moderate and low levels are the most prevalent across the majority of groups; however, "very high" levels are more frequent in advanced semesters. Similarly, comparable patterns are observed in both men and women, although women report a higher prevalence of moderate and low levels.

In terms of mental health: There is a relatively equitable distribution across the low, moderate, high, and very high categories. Women tend to report poorer mental health than men, which may correlate with their self-reported emotional levels.

However, no significant correlation was detected between these variables (Spearman's $Rho = 0.003$), suggesting that students' emotional levels do not necessarily translate into stress levels. Similarly, the correlation between stress and digestive disorders was not significant, indicating that academic stress does not directly impact digestive symptoms within this sample.

The results highlight the importance of implementing targeted interventions based on gender, semester, and age group. Strategies such as emotional wellness programs, stress management workshops, and psychological support services may be essential to address the specific needs of students at different stages of their academic journey.

REFERENCES

- Carreón, G.C., De los Reyes, N.L., Loredó, L.L., & Vázquez, T.M. (2023). Estrés académico y problemas de salud mental en estudiantes de enfermería durante la pandemia de COVID-19. *Revistas UNISIÓN*, 1-20. <https://www.scielo.org.mx/pdf/sanus/v9/2448-6094-sanus-9-e399.pdf>
- Calixto-González (2019). Neuroquímica del estrés. Congreso Estudiantil de Medicina de la Universidad de Sonora: *Neurociencias*. Octubre 2019.
- Cortés-Ibañez, L., Salas-Morales, V., & Rodríguez-Acosta, L. (2019). El apoyo social como factor protector de la salud mental en estudiantes universitarios. *Revista Mexicana de Investigación Educativa*, 24(81), 125-147.
- Cuamba, O.N., & Zazueta, S.N. (2020). Salud mental, habilidades de afrontamiento y rendimiento académico en estudiantes universitarios. *PSICUMEX*, 10(2), 71-94. <https://www.scielo.org.mx/pdf/psicu/v10n2/2007-5936-psicu-10-2-71.pdf>
- Cuadro, E., & Baile, J.I., (2015). El trastorno por atracón: análisis y tratamientos. *Revista Mexicana de Trastornos Alimentarios*, 6(2), 97-107. <https://www.re-dalyc.org/pdf/4257/425743626004.pdf>
- Cuenca, R.N., Robladillo, B.L., Meneses, L.R., & Suño, V.J. (2020). Salud mental en adolescentes universitarios Latinoamericanos: Revisión sistemática. *Archivos Venezolanos de Farmacología y Terapéutica*, 39(6), 689-695. <https://www.re-dalyc.org/journal/559/55965387003/html/>
- Cruz-Gómez, J. A., Alonso-García, S., Fernández-Montalvo, J., & Pérez-García, M. (2020). Resiliencia, satisfacción con la vida y salud mental en estudiantes universitarios en México. *Revista de Psicología y Educación*, 15(1), 39-46.
- Flores, J.J. (s.f). Exigencia académica en el aula universitaria. *Un Ensayo sobre Rigor y Exigencia en Universidades Mexicanas*, 1-23. <https://hablandoderecho.wordpress.com/wp-content/uploads/2015/02/exigencia-academica-en-el-aula-universitaria.pdf>
- Fundación UNAM. (20 de agosto de 2019). ¿Qué factores afectan la salud mental? <https://www.fundacionunam.org.mx/unam-al-dia/que-factores-afectan-la-salud-mental/#:~:text=La%20inseguridad%2C%20desesperanza%2C%20r%3%A1pido%20cambio,los%20elementos%20que%20la%20afectan.>
- García, M.A., & García, L.J. (2017). Una experiencia de medición de la carga de trabajo percibida por los estudiantes para facilitar la coordinación horizontal. *Revista de docencia universitaria*, 15(1), 81(104). <https://polipapers.upv.es/index.php/REDU/article/view/5987/7951>
- García, V.C., & Murray, H.M. (2023). Alteraciones del comportamiento alimentario: anorexia, bulimia, atracones. *Asociación Española de Pediatría*, 1, 519-534. https://www.aeped.es/sites/default/files/documentos/42_alter_anorexia.pdf
- Gil, Marta. (2016). *La Noción de Evaluación Eudaimonista en la Teoría Cognitiva de las Emociones de Martha Nussbaum*. <https://doi.org/10.1590/S0101-317320160003000011>.

- Huaquín, M.V., & Loaíza, H.R. (2004). Exigencias académicas y estrés en las carreras de la facultad de medicina de la Universidad Austral de Chile. *Estudios pedagógicos*, 30, 39-59. https://www.scielo.cl/scielo.php?script=sci_arttext&pid=So718-07052004000100003#:~:text=Las%20exigencias%20acad%C3%A9micas%20se%20comportan,analog%C3%ADa%20%22relajaci%C3%B3n%20versus%20tensi%C3%B3n%22.
- Londoño, J., Vernaza, P.P., Dueñas, C.R., Niño, C.V., & Rivera, A. (2024). Estrés académico en estudiantes universitarios: la epidemia silenciosa en una facultad de ciencias de la salud. *Salud UIS*, 56. <https://revistas.uis.edu.co/index.php/revistasaluduis/article/view/13656/13407>
- López, C.C., & Treasure, J. (2011). Trastornos de la conducta alimentaria en adolescentes: descripción y manejo. *Revista Médica Clínica de los Condes*, 22(1), 85-97. <https://www.elsevier.es/es-revista-revista-medica-clinica-las-condes-202-pdf-So716864011703960>
- Maturana, H.A., & Vargas, S.A. (2015). El estrés escolar. *Revista Médica Clínica de los Condes*, 26(1), 34-41. <https://www.elsevier.es/es-revista-revista-medica-clinica-las-condes-202-pdf-So716864015000073>
- Miranda, H.G. (2018). ¿De qué # hablamos cuando hablamos de salud mental? *Utopía y Praxis Latinoamericana*, 23 (83), 86-95. <https://www.redalyc.org/journal/279/27957772009/27957772009.pdf>
- Ministerio de Salud y Protección Social. *Ley 1616 de 2013. 21 de enero de 2013* (Colombia). <https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/ley-1616-del-21-de-enero-2013.pdf>
- Mora, V.A. (2004). La evaluación educativa: Concepto, períodos y modelos. *Revista Electrónica "Actualidades Investigativas en Educación"*, 4(2). 1-28. <https://www.redalyc.org/pdf/447/44740211.pdf>
- Núñez, O.C., Moreiras., & Carbajal. A. (1995). Algunos aspectos nutricionales de la anorexia nerviosa. En Núñez, O.C., Moreiras., Carbajal. A., Varela, P., Marcos, A., Santacruz, I., & Morandé, G. (Ed.), *Anorexia nerviosa y nutrición* (pp. 9-31). *Fundación española de nutrición*. <https://fen.org.es/storage/app/media/imgPublicaciones/19-Anorexia.pdf>
- Organización Mundial de la Salud. (8 de junio de 2022). *Trastornos mentales*. <https://www.who.int/es/news-room/fact-sheets/detail/mental-disorders>
- Organización Mundial de la Salud. (17 de junio de 2022). *Salud mental: fortalecer nuestra respuesta*. <https://www.who.int/es/news-room/fact-sheets/detail/mental-health-strengthening-our-response>
- Organización Panamericana de la Salud. (8 de octubre de 2020). "No hay salud sin salud mental". <https://www.paho.org/es/noticias/8-10-2020-no-hay-salud-sin-salud-mental>
- Osorio, E.J., Weisstaub, N.G., & Castillo, D.C. (2002). Desarrollo de la conducta alimentaria en la infancia y sus alteraciones, *Revista chilena de nutrición*, 29(3). https://www.scielo.cl/scielo.php?script=sci_arttext&pid=So717-751820020003

