

**HÁBITOS NUTRICIONALES, ESTRÉS ACADÉMICO, BIENESTAR EMOCIONAL Y RENDIMIENTO
ACADÉMICO EN ESTUDIANTES UNIVERSITARIOS DE EDUCACIÓN SUPERIOR**Boyukagha Mikayilli¹E-mail: tehsil.zaman@mail.ruORCID: <https://orcid.org/0000-0001-8931-0459>¹ Ministry of Science and Education, Republic of Azerbaijan.**Suggested Citation (APA, 7th edition)**Mikayilli, B. (2026). Nutritional habits, academic stress, emotional well-being, and academic performance among university students in higher education. *Revista UGC*, 4(S2), 42-50.**Submission:** 04/29/2026**Acceptance:** 07/05/2026**Publication:** 08/01/2026**ABSTRACT**

The increasing prevalence of academic stress, unhealthy dietary habits, emotional exhaustion, and psychological vulnerability among university students has generated growing concern regarding their impact on academic performance and overall well-being. This study analyzed the multidimensional relationship between nutrition, academic stress, emotional health, and educational achievement in higher education contexts. A qualitative documentary and analytical methodology was employed through the systematic review and critical interpretation of scientific literature published between 2019 and 2026. The research included peer-reviewed articles, cross-sectional studies, systematic reviews, and epidemiological investigations retrieved from international scientific databases such as Scopus, Web of Science, PubMed, ScienceDirect, SpringerLink, and Google Scholar. The findings revealed that academic stress significantly influences dietary behaviors, contributing to emotional eating, irregular meal schedules, excessive consumption of ultra-processed foods, sleep disturbances, anxiety, and decreased psychological resilience. Simultaneously, poor nutritional quality negatively affects cognitive functioning, concentration, memory, emotional regulation, and academic productivity. The evidence also demonstrated that healthy lifestyle practices, including balanced nutrition, regular physical activity, effective stress-management strategies, and adequate sleep hygiene, positively contribute to emotional stability and educational performance. Furthermore, the study identified that stress-related eating behaviors are influenced by psychosocial, cultural, and behavioral factors that shape students' adaptive responses to academic pressure. The analysis emphasizes the importance of integrating nutrition education, mental health

support, and preventive health promotion strategies within university systems. The study concludes that addressing nutrition and academic stress through interdisciplinary and institutional approaches may significantly improve students' well-being, academic adaptation, emotional resilience, and sustainable educational success in contemporary higher education environments.

Keywords:

Nutrition, academic stress, university students, mental health, academic performance.

RESUMEN

La creciente prevalencia del estrés académico, los hábitos alimentarios poco saludables, el agotamiento emocional y la vulnerabilidad psicológica entre los estudiantes universitarios ha generado una preocupación cada vez mayor respecto a su impacto en el rendimiento académico y el bienestar integral. Este estudio analizó la relación multidimensional entre la nutrición, el estrés académico, la salud emocional y el desempeño educativo en contextos de educación superior. Se empleó una metodología cualitativa de carácter documental y analítico mediante la revisión sistemática e interpretación crítica de literatura científica publicada entre 2019 y 2026. La investigación incluyó artículos revisados por pares, estudios transversales, revisiones sistemáticas e investigaciones epidemiológicas recuperadas de bases de datos científicas internacionales como Scopus, Web of Science, PubMed, ScienceDirect, SpringerLink y Google Scholar. Los hallazgos revelaron que el estrés académico influye significativamente en los comportamientos alimentarios, contribuyendo a la alimentación emocional, horarios irregulares de comida, consumo excesivo de alimentos ultraprocesados, alteraciones del



sueño, ansiedad y disminución de la resiliencia psicológica. Simultáneamente, la baja calidad nutricional afecta negativamente el funcionamiento cognitivo, la concentración, la memoria, la regulación emocional y la productividad académica. La evidencia también demostró que las prácticas de vida saludables, incluyendo una nutrición equilibrada, actividad física regular, estrategias efectivas de manejo del estrés y una adecuada higiene del sueño, contribuyen positivamente a la estabilidad emocional y al rendimiento educativo. Además, el estudio identificó que los comportamientos alimentarios relacionados con el estrés están influenciados por factores psicosociales, culturales y conductuales que moldean las respuestas adaptativas de los estudiantes ante la presión académica. El análisis enfatiza la importancia de integrar educación nutricional, apoyo en salud mental y estrategias preventivas de promoción de la salud dentro de los sistemas universitarios. El estudio concluye que abordar la nutrición y el estrés académico mediante enfoques interdisciplinarios e institucionales puede mejorar significativamente el bienestar estudiantil, la adaptación académica, la resiliencia emocional y el éxito educativo sostenible en los entornos contemporáneos de educación superior.

Palabras clave:

Nutrición, estrés académico, estudiantes universitarios, salud mental, rendimiento académico.

INTRODUCTION

The university stage represents one of the most demanding and transformative periods in the life of young adults. Beyond academic adaptation, university students are exposed to continuous psychological, emotional, social, and behavioral challenges that directly influence their physical and mental well-being. Among the multiple factors associated with academic success, nutrition and stress have emerged as two deeply interconnected variables capable of affecting cognitive performance, emotional stability, learning capacity, concentration, memory, and overall academic achievement. In contemporary higher education environments characterized by academic overload, competitive pressure, sleep deprivation, technological hyperconnectivity, and unhealthy lifestyles, the relationship between dietary habits, stress, and academic performance has become an urgent public health and educational concern.

Academic stress has been widely recognized as one of the most prevalent psychological conditions affecting university populations worldwide. The transition to higher education frequently involves exposure to new academic responsibilities, demanding workloads, financial pressures, social adaptation, and uncertainty regarding future professional success. These stressors often alter students' physiological and psychological balance, generating negative consequences on emotional health, lifestyle behaviors, and nutritional patterns. According to AL-Dalaeen

et al. (2024), stress significantly influences eating behaviors among university students, contributing to unhealthy dietary choices, emotional eating, weight fluctuations, and dissatisfaction with eating habits. Their findings demonstrated that students experiencing academic stress tended to consume unhealthy foods, particularly sweets and high-calorie products, while exhibiting reduced engagement in stress-management activities such as physical exercise and recreational hobbies.

The relationship between stress and nutrition is particularly relevant because stress can trigger maladaptive coping mechanisms associated with excessive food intake, emotional eating, or appetite suppression. Physiologically, chronic stress activates neuroendocrine responses involving cortisol secretion and hypothalamic-pituitary-adrenal axis dysregulation, which may increase cravings for high-fat and high-sugar foods while simultaneously affecting metabolic balance and cognitive functioning. Caso et al. (2020) demonstrated that unhealthy eating behaviors during periods of academic stress are moderated by eating styles and body mass index, suggesting that psychological vulnerability and dietary patterns interact in complex ways within university populations. These findings reinforce the need to understand nutrition not merely as a biological necessity but also as a psychosocial and educational determinant that influences students' adaptive responses to academic demands.

Recent scientific evidence has increasingly emphasized the role of dietary quality in students' mental health and academic performance. A systematic review conducted by Phelan et al. (2025) revealed consistent associations between higher dietary quality and lower levels of stress, anxiety, and depression, as well as improved academic outcomes among college students. Their analysis highlighted that balanced nutritional patterns rich in fruits, vegetables, whole grains, proteins, and micronutrients contribute positively to cognitive performance, emotional regulation, concentration, and memory processes essential for academic success. Conversely, diets characterized by excessive consumption of ultra-processed foods, sugars, and saturated fats were associated with poorer psychological well-being and decreased academic productivity. These findings support the growing recognition that nutrition plays a fundamental role in brain functioning, emotional resilience, and learning processes in higher education contexts.

The educational implications of nutrition and stress extend beyond individual health outcomes because they directly affect academic engagement, retention, productivity, and institutional performance. University students experiencing chronic stress and inadequate nutrition may develop fatigue, sleep disturbances, reduced motivation, impaired attention, and diminished capacity for problem-solving and critical thinking. In this regard, Khanum et al. (2024) found that academic-related and

teaching-learning-related stressors significantly influence eating habits among medical students, reinforcing the idea that stressful educational environments can contribute to unhealthy behavioral adaptations. Their findings suggest that academic institutions must consider student well-being as an integral component of educational quality and not merely as an individual responsibility.

Physical activity and healthy nutrition have also been identified as protective factors capable of reducing academic stress and improving mental health outcomes. Monserrat-Hernández et al. (2023) demonstrated that physical exercise and adequate nutrition contribute significantly to reducing stress levels among university students while simultaneously enhancing psychological well-being and academic adaptation. Their study highlights the multidimensional nature of student health, emphasizing that academic success cannot be separated from lifestyle behaviors, emotional balance, and preventive health strategies. These findings are particularly important in contemporary educational systems where sedentary behaviors, poor sleep quality, irregular eating patterns, and emotional exhaustion are increasingly common among university populations.

The relationship between nutrition, stress, and academic performance has acquired even greater relevance in the post-pandemic educational context. The rapid digitalization of education, social isolation, economic uncertainty, and increased psychological vulnerability experienced during and after the COVID-19 pandemic intensified unhealthy dietary behaviors and stress-related conditions among students worldwide. University students now face hybrid academic environments characterized by prolonged screen exposure, reduced physical activity, altered sleep cycles, and increased emotional pressure, all of which may negatively influence nutritional behaviors and learning outcomes. Consequently, the study of nutrition and stress in university populations has become essential not only for understanding academic performance but also for promoting holistic student well-being and sustainable educational development.

From a pedagogical perspective, nutrition education and stress management should be integrated into university health promotion strategies and institutional policies aimed at improving students' quality of life and academic achievement. Higher education institutions have the responsibility to create supportive environments that encourage healthy eating habits, emotional resilience, physical activity, and mental health awareness. Educational interventions focused on nutritional literacy, stress reduction, and healthy lifestyle promotion may contribute to improving cognitive performance, reducing emotional distress, and fostering more effective learning experiences among students.

Despite the increasing body of scientific literature addressing stress and nutrition among university students,

important gaps remain regarding the multidimensional interactions between dietary behaviors, psychological health, and academic outcomes across diverse educational contexts. Many studies have focused on isolated variables without comprehensively examining how stress, emotional well-being, dietary quality, and academic performance interact simultaneously. Furthermore, cultural, socioeconomic, and educational differences may influence students' nutritional patterns and stress responses, requiring continued investigation from interdisciplinary and global perspectives.

The present study seeks to analyze the relationship between nutrition, academic stress, and academic performance among university students, emphasizing how dietary quality and stress-related behaviors influence educational outcomes and student well-being. Understanding these interactions may contribute to the development of evidence-based educational and health strategies capable of promoting healthier lifestyles, improving academic achievement, and strengthening the integral development of university students in contemporary higher education environments.

Materials and Methods

This study employed a qualitative documentary and analytical research design aimed at examining the multidimensional relationship between nutrition, academic stress, emotional well-being, and academic performance among university students. The research was developed through a systematic review and critical analysis of contemporary scientific literature focused on dietary behaviors, stress-related conditions, emotional eating, mental health, lifestyle factors, and educational outcomes in higher education contexts. The documentary approach allowed the integration of interdisciplinary evidence from nutrition sciences, psychology, public health, educational sciences, and behavioral health, facilitating a comprehensive understanding of the phenomenon under investigation.

The study followed a descriptive-analytical methodology grounded in the interpretation, comparison, and synthesis of scientific evidence published between 2019 and 2026. Peer-reviewed scientific articles, systematic reviews, cross-sectional studies, epidemiological investigations, and international academic publications indexed in recognized scientific databases were considered. The documentary corpus included studies retrieved from databases such as Scopus, Web of Science, PubMed, Google Scholar, ScienceDirect, and SpringerLink.

The inclusion criteria considered investigations published in English between 2019 and 2026 addressing at least one of the following variables: academic stress, nutrition, dietary habits, emotional eating, anxiety, mental health, sleep quality, physical activity, cognitive performance, or academic achievement among university students. Studies focused exclusively on clinical populations unrelated to

higher education contexts, duplicated records, non-peer-reviewed documents, opinion papers, conference abstracts without full-text access, and publications lacking methodological clarity were excluded from the analysis.

The search strategy incorporated combinations of descriptors and keywords such as “academic stress,” “nutrition,” “dietary habits,” “emotional eating,” “mental health,” “academic performance,” “university students,” “stress coping,” “food insecurity,” “healthy lifestyles,” and “higher education.” Boolean operators including AND and OR were used to optimize the search process and improve the retrieval of relevant scientific evidence. Subsequently, titles, abstracts, methodologies, and conclusions of the selected studies were critically examined to determine their relevance and scientific contribution to the research objective.

Data analysis was conducted through thematic categorization and interpretative synthesis. The selected literature was organized into analytical categories associated with stress-related eating behaviors, nutritional quality, emotional health, cognitive functioning, academic adaptation, physical activity, sleep quality, coping mechanisms, and educational performance. This analytical process facilitated the identification of convergences, divergences, emerging trends, and conceptual relationships among the reviewed studies. Additionally, the analysis emphasized the educational, psychological, and public health implications derived from scientific evidence.

To strengthen methodological rigor, the study prioritized recent publications with strong theoretical foundations, clearly defined methodologies, and evidence-based findings. The documentary analysis also considered the sociocultural and educational diversity of the included studies, allowing broader interpretation of the interactions between nutrition, stress, and academic performance across different university contexts. Ethical principles related to academic integrity, responsible citation practices, and intellectual property protection were respected throughout the development of the investigation.

RESULTS AND DISCUSSION

The growing incidence of academic stress, unhealthy dietary habits, emotional exhaustion, and declining psychological well-being among university students has generated increasing scientific concern regarding the relationship between nutrition, mental health, and academic performance in higher education environments. Contemporary research demonstrates that students' dietary behaviors are not isolated lifestyle choices, but multidimensional factors closely linked to emotional regulation, cognitive functioning, stress adaptation, sleep quality, and educational achievement. In this context, numerous international studies have explored how stress-related conditions influence eating patterns and, simultaneously, how nutritional quality affects mental health and academic outcomes.

Collectively, these investigations provide valuable evidence supporting the need for comprehensive institutional strategies that integrate health promotion, emotional support, and nutritional education within university systems.

Neisi & Parham (2026) contribute to this discussion by demonstrating that dietary and lifestyle behaviors are significantly associated with academic performance among university students. Their cross-sectional study revealed that balanced nutrition, healthy sleep patterns, and regular physical activity positively influence grade point average and cognitive functioning. Furthermore, the authors emphasize that unhealthy lifestyle behaviors, including poor eating habits and inadequate stress management, may compromise concentration, motivation, and educational productivity.

Similarly, Maqsood et al. (2023) examined the association between academic stress and eating patterns among university students, highlighting that elevated stress levels frequently lead to irregular eating schedules, emotional eating, and excessive consumption of unhealthy foods. Their findings indicate that students experiencing high academic pressure often adopt maladaptive coping mechanisms that negatively affect both physical health and academic engagement. Consequently, the study reinforces the importance of preventive interventions focused on stress reduction and nutritional awareness.

In addition, Chak et al. (2025) explored the impact of nutrition on mental health and academic performance, emphasizing the complex interplay between dietary habits and educational success. Their research demonstrated that healthy nutritional patterns contribute to improved emotional stability, reduced anxiety and depressive symptoms, and enhanced academic achievement. The authors also argue that nutritional deficiencies and poor dietary choices may impair cognitive performance and increase emotional vulnerability among university students.

Likewise, Chacón-Cuberos et al. (2019) analyzed the relationship between academic stress, physical activity, and diet among education students, revealing that stress negatively influences both eating behaviors and physical exercise participation. Their study showed that students exposed to higher stress levels tended to engage less frequently in healthy lifestyle practices, suggesting that stress management programs should simultaneously address nutrition, physical activity, and emotional well-being to improve educational outcomes.

Furthermore, Hanbazaza et al. (2026) investigated emotional eating behaviors among postgraduate students and found a strong association between academic stress and emotional food consumption. Their findings indicate that stress-related emotional eating may function as a maladaptive coping mechanism that contributes to weight gain, emotional instability, and decreased psychological resilience. Therefore, the study highlights the need for

universities to implement emotional support systems and nutritional education programs capable of helping students develop healthier coping strategies.

Correspondingly, Jekayinfa & Olabisi (2024) explored the experiences of Black university students regarding academic stress, eating behavior, and food choices. Their study revealed that sociocultural pressures, financial limitations, and academic demands significantly influence students' nutritional decisions and emotional health. The authors emphasize that stress-related dietary behaviors are shaped not only by academic conditions but also by social and cultural realities that affect students' well-being and educational experiences.

Likewise, Choi (2020) examined the impact of stress levels on eating behaviors among college students and demonstrated that stress contributes to unhealthy food choices, emotional overeating, and irregular meal patterns. The study additionally showed that stress-related eating behaviors are associated with reduced self-regulation and poorer health outcomes, reinforcing the importance of promoting emotional management skills within university populations.

Moreover, Granada-Granada et al. (2025) analyzed the relationship between academic stress and performance among first-year health sciences students in Chile. Their findings revealed that elevated stress levels negatively affect academic adaptation, concentration, and educational achievement during the transition to university life. The authors also highlight that emotional exhaustion and stress-related difficulties may compromise students' capacity to maintain healthy routines and effective study behaviors.

Similarly, Caso et al. (2020) investigated unhealthy eating behaviors in relation to academic stress and demonstrated that eating styles and body mass index moderate students' responses to stress. Their findings suggest that individuals experiencing higher stress levels are more likely to engage in unhealthy dietary practices, particularly emotional eating and excessive consumption of calorie-dense foods. Consequently, the study emphasizes the need to understand nutritional behavior within broader psychological and behavioral contexts.

In another important contribution, Betancourt-Núñez et al. (2024) examined the influence of food insecurity, mental health, and sleep quality on university students' academic performance. Their research demonstrated that food insecurity and poor sleep quality are strongly associated with psychological distress and diminished educational outcomes. The study highlights that academic success is influenced not only by intellectual abilities but also by students' living conditions, nutritional access, and emotional well-being.

Likewise, Ibraimi et al. (2025) explored the impact of stress and anxiety on dietary habits and academic

performance among pharmacy students. Their findings indicate that students experiencing anxiety and chronic stress frequently develop unhealthy eating behaviors that negatively affect concentration, academic productivity, and psychological stability. The authors argue that stress reduction interventions may significantly improve both nutritional behaviors and academic outcomes within health sciences education.

Additionally, Shah et al. (2024) analyzed the antecedents and consequences of academic stress on dietary habits among university students. Their study demonstrated that academic overload, emotional pressure, and inadequate coping mechanisms contribute to unhealthy dietary practices and adverse health outcomes. Importantly, the authors emphasize that stress management strategies, emotional resilience, and institutional support systems play critical roles in improving students' adaptive capacities and overall well-being.

Similarly, Alduraywish et al. (2023) investigated the relationship between academic stress during examination periods, dietary behavior, and bowel symptoms among medical students in Saudi Arabia. Their findings revealed that examination stress significantly alters eating behaviors and contributes to gastrointestinal discomfort, emotional distress, and unhealthy nutritional choices. The study demonstrates that stress affects not only psychological well-being but also physiological health and daily functioning among university students.

Finally, Mathunjwa et al. (2024) explored the relationship between nutrition and academic success, emphasizing that healthy dietary practices are essential for cognitive functioning, emotional regulation, and educational achievement. Their study highlights that proper nutrition contributes to improved memory, concentration, learning capacity, and psychological resilience, reinforcing the notion that nutrition should be considered a central component of student success and institutional well-being strategies.

Collectively, these studies demonstrate that academic stress, nutrition, mental health, and academic performance are deeply interconnected dimensions of university students' lives. The evidence consistently supports the implementation of multidisciplinary educational, nutritional, and psychological interventions capable of promoting healthier lifestyles, emotional resilience, and improved academic outcomes within higher education institutions.

The findings of this study demonstrate that nutrition and academic stress are strongly interconnected variables that directly influence university students' academic performance, emotional stability, and behavioral adaptation within higher education environments. The analysis revealed that students exposed to elevated levels of academic pressure frequently experienced significant modifications in their dietary behaviors, including irregular meal

schedules, increased consumption of ultra-processed foods, emotional eating episodes, and reduced intake of nutritionally balanced meals. These behavioral patterns were consistently associated with diminished concentration, lower academic motivation, mental fatigue, decreased perceived academic efficiency, and reduced psychological well-being. Evidence also suggests that poor dietary quality, food insecurity, and unhealthy lifestyle behaviors negatively influence memory, attention span, emotional regulation, and learning capacity, reinforcing the importance of balanced nutrition as a determinant of academic success and cognitive performance among university populations.

Stress can be understood as a physiological and psychological response that emerges when individuals perceive that environmental demands exceed their adaptive capacities. Within university settings, academic stress commonly originates from examinations, deadlines, excessive workloads, financial concerns, social pressures, uncertainty regarding future employment, and continuous academic competition. Although moderate stress may temporarily increase alertness and motivation, chronic or uncontrolled stress negatively affects cognitive functioning, emotional balance, sleep quality, immune responses, and metabolic regulation. Prolonged exposure to stress hormones such as cortisol can alter appetite, increase emotional eating behaviors, reduce concentration, and contribute to anxiety and emotional exhaustion. Moreover, high stress levels have been associated with increased vulnerability to depressive symptoms, poor sleep quality, sedentary behaviors, and unhealthy coping mechanisms that directly compromise academic adaptation and educational achievement. Consequently, stress is no longer considered merely an emotional reaction but rather a multidimensional phenomenon capable of affecting students' physical health, learning capacity, and overall academic performance.

One of the most significant findings identified in the analyzed evidence was the tendency of students to adopt compensatory eating behaviors during periods of academic overload. Examination periods, assignment deadlines, prolonged study hours, and continuous academic evaluation generated emotional responses that altered food consumption patterns. Students frequently reported increased intake of foods rich in sugars, caffeine, sodium, and saturated fats during stressful periods due to their accessibility, rapid preparation, and temporary psychological comfort. However, these nutritional choices were associated with greater emotional instability, reduced energy sustainability, gastrointestinal discomfort, and poorer cognitive functioning over time. Additional evidence indicates that stress-related overeating and emotional eating behaviors are often accompanied by irregular meal timing, meal skipping, and increased preference for highly processed foods, especially among students with elevated anxiety levels and ineffective stress-coping strategies.

The evidence suggests that unhealthy dietary behaviors function not only as physiological responses to stress but also as coping mechanisms associated with emotional regulation and psychological exhaustion.

The reviewed studies also demonstrated important differences in stress-related eating behaviors according to gender. Female students showed a greater tendency toward emotional eating, monitoring body image, and experiencing dissatisfaction with eating habits, whereas male students more frequently reported appetite suppression or meal skipping during stressful situations. Furthermore, female students appeared more vulnerable to anxiety, emotional distress, and stress-induced food cravings, particularly during examination periods and situations of academic overload. These findings indicate that academic stress interacts with sociocultural perceptions, emotional coping styles, and self-regulation behaviors in distinct ways among university populations. Such differences highlight the importance of designing gender-sensitive health promotion strategies capable of addressing the specific emotional and nutritional vulnerabilities experienced by students in higher education settings.

Another relevant finding concerns the relationship between dietary quality and cognitive performance. Students who maintained healthier eating patterns characterized by regular consumption of fruits, vegetables, proteins, water, and balanced meals demonstrated greater emotional control, improved concentration, higher academic engagement, and better perceived academic outcomes. In contrast, students with poor nutritional habits frequently reported difficulties related to memory retention, mental clarity, classroom participation, and sustained attention during academic activities. Additionally, healthier dietary patterns were associated with lower stress levels, reduced anxiety symptoms, and stronger psychological resilience, whereas diets high in sugar and processed foods were linked to fatigue, reduced productivity, and emotional instability. These findings reinforce the growing scientific understanding that nutritional quality influences neurological functioning, learning processes, and psychological resilience in educational contexts.

The analysis additionally revealed that stress-induced eating behaviors contribute to weight fluctuations and negative body perception among university students. A considerable proportion of students reported weight gain after entering university, which was associated with emotional eating, sedentary lifestyles, sleep disruption, and limited participation in physical activities. In parallel, some students experienced appetite suppression and weight loss during periods of severe stress and anxiety, demonstrating that stress can influence eating behaviors in multiple directions. The university environment often encourages irregular daily routines characterized by prolonged sitting, reduced physical exercise, fast-food consumption, and inadequate self-care practices. These factors collectively

contribute to metabolic imbalance and emotional distress, which may further compromise students' academic performance and psychological well-being.

An important aspect identified in the reviewed literature was the low prevalence of adaptive stress-management strategies among students. Although some participants reported engaging in physical exercise, recreational activities, mindfulness practices, meditation, or social support networks to reduce stress, a substantial percentage relied on passive or ineffective coping mechanisms such as overeating, social withdrawal, emotional suppression, excessive screen exposure, and sleep deprivation. Furthermore, many students demonstrated limited awareness regarding the importance of healthy coping strategies, nutritional balance, and emotional self-regulation for academic success. This finding suggests that many university students lack adequate emotional regulation skills and health education resources necessary to manage academic stress in constructive ways. Consequently, unhealthy nutritional behaviors may become normalized responses to academic pressure within university culture.

Reducing academic stress requires the implementation of healthy coping strategies capable of improving both emotional well-being and physiological balance. Regular physical exercise has consistently been identified as one of the most effective mechanisms for reducing stress because it promotes endorphin release, improves mood, reduces anxiety, and enhances cognitive functioning. Likewise, maintaining adequate sleep hygiene, balanced nutrition, hydration, and organized study schedules contribute significantly to emotional stability and academic productivity. Relaxation techniques such as deep breathing exercises, yoga, mindfulness, meditation, and recreational hobbies may also help students regulate emotional tension and improve psychological resilience. Moreover, students who actively engage in healthy lifestyle practices tend to demonstrate stronger academic adaptation, higher motivation, and better emotional regulation under stressful educational conditions. Social support from family, peers, and educational institutions plays a protective role by reducing feelings of isolation and strengthening students' adaptive capacities during periods of academic pressure.

The findings also demonstrate that stress and poor nutrition negatively affect students' emotional health. High levels of stress were associated with symptoms of anxiety, irritability, emotional exhaustion, reduced self-esteem, depressive manifestations, and impaired emotional regulation. Simultaneously, unhealthy eating patterns appeared to intensify these psychological conditions, generating a cyclical relationship between emotional distress and maladaptive dietary habits. Evidence also indicates that emotional eating behaviors are strongly associated with psychological discomfort, stress vulnerability, and reduced coping capacity, especially among students exposed to prolonged academic pressure. Students experiencing

emotional instability often sought comfort in highly palatable foods, while poor nutritional quality contributed to increased fatigue, mood fluctuations, and decreased psychological resilience. This bidirectional relationship confirms that nutrition and mental health should be addressed together within student support programs and educational health policies.

CONCLUSIONS

The findings of this study demonstrate that nutrition, academic stress, emotional well-being, and academic performance are deeply interconnected dimensions that significantly influence university students' educational experiences and quality of life. Contemporary higher education environments expose students to continuous academic demands, emotional pressures, unhealthy lifestyle patterns, and psychosocial stressors that frequently compromise both physical and mental health. In this context, dietary quality emerged as a fundamental determinant of cognitive functioning, emotional regulation, concentration, motivation, and academic achievement.

The evidence analyzed throughout this investigation revealed that elevated stress levels contribute to maladaptive eating behaviors, including emotional eating, excessive consumption of ultra-processed foods, irregular meal schedules, and inadequate nutritional practices. Simultaneously, poor nutrition intensifies psychological distress, anxiety, fatigue, emotional instability, and reduced academic productivity, generating a cyclical relationship between stress and unhealthy lifestyle behaviors. The study also demonstrated that emotional eating behaviors and unhealthy coping mechanisms are particularly prevalent during examination periods and situations of academic overload, negatively affecting students' overall well-being and educational adaptation.

Furthermore, the results highlight healthy dietary habits, regular physical activity, adequate sleep hygiene, emotional self-regulation, and effective stress-management strategies positively contribute to academic success and psychological resilience. Students who maintained balanced nutritional patterns and healthier lifestyles demonstrated improved concentration, emotional stability, cognitive performance, and academic engagement. These findings reinforce the growing recognition that academic achievement should not be interpreted exclusively through intellectual or cognitive indicators, but rather through an integral perspective that incorporates physical health, emotional well-being, and lifestyle conditions.

The study also underscores the urgent need for universities to adopt comprehensive institutional policies aimed at promoting student health and well-being. Higher education institutions must recognize that nutrition education, mental health support, stress management, and healthy lifestyle promotion constitute essential components of educational quality and student success. Universities

should therefore implement multidisciplinary interventions involving educators, psychologists, nutritionists, healthcare professionals, and student support services to foster healthier academic environments and strengthen students' adaptive capacities.

Finally, this research confirms that addressing nutrition and academic stress from interdisciplinary and preventive perspectives may contribute significantly to improving university students' academic performance, emotional resilience, and quality of life. The promotion of healthy lifestyles within higher education should be understood not only as a public health priority but also as a strategic educational investment capable of strengthening sustainable learning processes, institutional well-being, and integral human development in contemporary university contexts.

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Conflicts of Interest:

The author declares no conflicts of interest.

Author Contributions:

Boyukagha Mikayilli: Conceptualization, data curation, formal analysis, investigation, methodology, supervision, validation, visualization, original draft writing, and writing, review, and editing.

Ethical statement:

The study was based on the analysis of documentary sources and publicly available data, and therefore did not involve the direct participation of human subjects. No personally identifiable information was handled.