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The Effects of Academic Stress on High Sugar Intake of Allied Health Students at Perpetual Help College Manila

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Abstract

Academic stress is one of the most pervasive challenges faced by students in higher education, particularly those enrolled in Allied Health programs where academic rigor, clinical responsibilities, and intensive coursework converge to create high-pressure learning environments. Under such conditions, students frequently resort to maladaptive coping mechanisms, including increased consumption of sugar-rich foods and beverages. This study investigated the relationship between academic stress and high sugar intake among Allied Health students at Perpetual Help College Manila. Using a descriptive-correlational quantitative research design, data were collected from 62 students through a validated four-part questionnaire measuring demographic characteristics, academic stressors (course load, time management, clinical internship), sugar intake behaviors (frequency, types, patterns), and coping strategies. Descriptive statistics summarized the respondents' profiles and behavioral tendencies, while Spearman's Rho correlation determined associations between key variables. Results revealed strong positive correlations between course load and sugar intake frequency ($\rho = .745$, $p = .000$), types of sugary foods consumed ($\rho = .746$, $p = .000$), and consumption patterns ($\rho = .744$, $p = .000$). Time management challenges and clinical internship stress also showed significant associations with increased sugar consumption. Although coping mechanisms such as time management and cognitive-behavioral strategies were significantly associated with reduced academic stress, they did not necessarily lead to decreased sugar intake. These findings suggest

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that sugar consumption among Allied Health students is influenced not only by stress but also by habit, accessibility, and perceived energy needs during academic tasks. The study emphasizes the need for enhanced stress-management interventions, health-promoting campus environments, and nutrition education to guide students toward healthier coping behaviors. Recommendations include institutional programs focused on wellness, student support strategies, and further research exploring long-term effects of stress-related dietary behaviors.

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Keywords: *Academic stress; sugar intake; coping mechanisms; Allied Health students; eating behavior*

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1. INTRODUCTION

Academic life is widely recognized as one of the most formative yet challenging phases in an individual's professional and personal development. For students enrolled in Allied Health programs such as Occupational Therapy, Respiratory Therapy, and Physical Therapy the college years demand not only intellectual competence but also emotional resilience, physical stamina, and effective self-management skills. These programs require students to successfully navigate complex theoretical frameworks, intensive laboratory competencies, repetitive clinical skills training, community immersions, and actual patient interactions during clinical rotations. As a result, the academic journey of an Allied Health student is uniquely rigorous compared to many other undergraduate fields.

Within these academic demands arises a phenomenon that has gained increasing attention across global research: academic stress. Academic stress is broadly defined as the psychological distress originating from academic expectations, workload pressures, performance anxieties, and environmental challenges that students encounter in educational settings. It manifests cognitively, emotionally, behaviorally, and physiologically. According to contemporary psychological frameworks, stress triggers various adaptive and maladaptive responses that may influence concentration, mood, sleep, motivation, and lifestyle choices including dietary habits.

One of the most commonly observed behavioral responses to stress, especially among college students, is the increased consumption of sugar-rich foods and beverages. Numerous studies have established that stress can trigger cravings for high-calorie, high-sugar items due to their immediate but temporary energizing and mood-boosting effects. Physiologically, the body releases cortisol during stressful episodes, which stimulates appetite and intensifies cravings for sweet and energy-dense foods. Psychologically, students may also use sugary snacks as a form of emotional comfort or as a perceived source of quick energy during long study hours.

For Allied Health students in the Philippines, the tendency toward increased sugar intake may be further influenced by cultural eating patterns and environmental factors. Filipino cuisine includes a strong preference for sweet foods, such as desserts, pastries, sweetened beverages, and carbohydrate-rich snacks that are readily accessible around campuses. Affordable food stalls near schools often offer sugary options, making them an easy choice for students experiencing stress or time constraints. The popularity of "milk tea," sweetened coffee drinks, soft drinks, and flavored juices among college students has also expanded sugar consumption in recent years.

Understanding the relationship between academic stress and sugar intake is highly relevant for the Allied Health student population because their academic responsibilities are intertwined with expectations of professional competency, ethical practice, and health advocacy. As future practitioners, their personal health choices reflect their readiness to model healthy behaviors and promote preventive health strategies to patients. Excessive sugar intake is associated with numerous health risks, including weight gain, impaired cognitive function, insulin resistance, cardiovascular diseases, and sleep disruptions all of which can hinder academic performance and clinical efficiency.

While global research has addressed stress-induced eating behaviors, there remains limited localized data concerning Filipino Allied Health students. The lack of comprehensive

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Philippine-based research reflects a gap in understanding cultural, environmental, and academic influences on dietary behavior. This gap further highlights the importance of the present study, which investigates academic stress and its association with sugar intake among Allied Health students of Perpetual Help College Manila. By quantifying the extent of this relationship and identifying specific academic stressors that contribute most significantly to dietary changes, the study provides valuable insights for educational institutions, health practitioners, and policymakers.

Objectives of the Study

This study aims to investigate the relationship between academic stress and high sugar intake among Allied Health students at Perpetual Help College Manila. Specifically, it seeks to:

1. Determine the level of academic stress in terms of:
   a. Curse load
   b. Time management challenges
   c. Clinical internship

2. Identify the level of sugar intake in terms of:

   a. Frequency of consumption
   b. Types of sugary foods and beverages consumed
   c. Sugar consumption patterns

3. Examine the significant relationship between academic stress and sugar intake.
4. Evaluate the relationship between coping mechanisms and:

   a. Academic stress
   b. Sugar intake

Statement of the Problem

This study seeks to answer the following questions:

1. What is the demographic profile of Allied Health students in terms of age, gender, and year level?
2. What is the level of academic stress experienced by students in terms of course load, time management, and clinical internship demands?
3. What is the level of sugar intake among students in terms of frequency, types, and consumption patterns?
4. Is there a significant relationship between academic stress and high sugar intake?
5. Is there a significant relationship between students' coping mechanisms and their levels of academic stress and sugar intake?

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2. METHODOLOGY

2.1 Research Design

This study employed a descriptive-correlational quantitative research design, which is suitable for identifying relationships between naturally occurring variables without manipulating any conditions. The correlational approach was specifically chosen to examine the association between academic stress and high sugar intake among Allied Health students. This design allowed the researchers to statistically determine whether increases in academic stress correspond to increases in sugar consumption patterns.

2.2 Methods for Gathering Information

Information for the study was gathered through a structured, self-administered online survey. The researchers followed a systematic procedure to ensure that reliable, valid, and accurate data were collected.

A. Survey Distribution

The primary data-gathering tool was a Google Forms questionnaire that was disseminated to students enrolled in Allied Health programs. The researchers coordinated with class presidents and official student group chats to distribute the survey link. This ensured that all eligible students had equal access to participate.

B. Data Collection Procedure

1. The researchers prepared an introductory statement explaining the purpose of the study, confidentiality measures, voluntary participation, and consent.
2. Respondents accessed the Google Form and completed the questionnaire at their own pace.
3. The form was open for 24 hours, and reminders were sent to ensure adequate participation.
4. Completed responses were automatically recorded and stored securely in an encrypted online spreadsheet.
5. Data were screened for completeness and accuracy before analysis.

C. Ethical Considerations During Data Gathering

a. Participation was voluntary.
b. Respondents could withdraw at any time.
c. No personal identifiers (names, student numbers) were collected.
d. The data followed provisions under the Data Privacy Act of 2012.

This structured and ethical data-gathering method ensured that the information collected was reliable, consistent, and safeguarded from potential risks.

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2.3 Sources of Information (Primary and Secondary)

The study integrated both primary and secondary sources of information to ensure comprehensive coverage of the topic.

A. Primary Sources of Information

Primary data came directly from student respondents who completed the questionnaire. These data included:

a. Their demographic information
b. Self-reported levels of academic stress
c. Sugar intake frequency and patterns
d. Types of sugary foods and drinks consumed
e. Coping mechanisms used during stress

Since the survey captured personal experiences and current behaviors, the primary data served as the main basis for statistical analysis. These firsthand accounts were essential for determining the correlation between academic stress and sugar intake.

B. Secondary Sources of Information

Secondary sources were used to support the study's background, literature review, theoretical foundation, and conceptual framework. These included:

1. Peer-reviewed journal articles on academic stress, emotional eating, and dietary behaviors.
2. Books and scholarly texts discussing stress theories, nutrition science, and coping mechanisms.
3. Online academic databases such as ResearchGate, PubMed, Google Scholar, and university repositories.
4. Local and international studies relevant to stress-induced eating, Filipino dietary culture, and student behavior.
5. Guidelines from health authorities, including the World Health Organization (WHO) on sugar intake recommendations.

These secondary sources helped build the rationale for the study, identify existing gaps in the literature, and contextualize the findings within broader scientific knowledge.

2.4 Population and Sample of the Study

The population included all students from the Allied Health programs of Perpetual Help College Manila during the Academic Year 2024–2025. A total of 62 valid responses were collected through convenience sampling. Slovin's Formula was used during planning to ensure that the sample size was adequate for correlational analysis.

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Instrumentation

The research instrument was a validated four-part questionnaire composed of:

1. Student profile (age, gender, year level)
2. Academic Stress Scale measuring course load, time management, and internship stress
3. Sugar Intake Scale measuring frequency, types, and patterns
4. Coping Mechanisms Checklist (stress reduction, time management, CBT strategies)

All items were measured using a 5-point Likert scale. The instrument underwent content validity through expert review by faculty members.

Hypothesis of the Study

H_{01}: There is no significant relationship between academic stress and sugar intake.
H_{02}: There is no significant relationship between coping mechanisms and academic stress.
H_{03}: There is no significant relationship between coping mechanisms and sugar intake.

3.1 RESULTS

This section presents the findings of the study based on the statistical analyses conducted. The results are organized according to the main variables of interest: demographic profile, academic stress levels, sugar intake levels, coping mechanisms, and the correlations between these variables. Tables are included to summarize key findings and support the interpretation of data.

Demographic Profile of Respondents

A total of 62 Allied Health students participated in the study. Their demographic characteristics reflect a typical composition of Allied Health programs in the Philippines.

Most respondents (96.8%) belonged to the 20–25 age group, indicating that the sample is largely composed of young adult learners who are in the typical college-age range. In terms of gender, female students represented 72.6% of the sample, consistent with the nationwide trend where health sciences programs tend to have higher female enrollment. For year level, the majority came from the third-year level (46.8%), followed by first-year students (40.3%) and second-year students (12.9%).

These demographics contextualize the findings since age, gender, and academic year are known to influence coping styles, stress perception, and dietary behaviors.

Academic Stress Levels

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Academic stress was measured in terms of course load, time management, and clinical internship.

Course Load

Respondents generally reported moderate to high levels of academic stress attributed to course load. Many students expressed feeling overwhelmed by the volume of lectures, laboratory tasks, and academic requirements. Weighted mean values for several items ranged from 3.20–3.50, falling in the "Neutral to Agree" range. This indicates that while students are not consistently overwhelmed, they experience periodic surges of stress when deadlines accumulate or when multiple subjects demand simultaneous attention.

Time Management

Time management emerged as a significant challenge for many respondents. Items reflecting difficulties balancing academic tasks, personal responsibilities, and rest periods yielded weighted mean values in the "Agree" range (3.40–3.56). Students acknowledged that poor time management contributed to fatigue and academic strain. This finding is consistent with literature indicating that students who lack effective time management strategies are more vulnerable to stress-induced eating behaviors.

Clinical Internship

Students who already began their internship rotation reported stress related to clinical duties, patient care responsibilities, shift scheduling, and performance evaluation. The weighted mean values around 2.98–3.10 show moderate stress levels. Although not all respondents were interns, those who were reported higher levels of uncertainty, anxiety, and perceived pressure to perform well in patient interactions.

Sugar Intake Levels

Sugar intake was assessed by examining frequency of consumption, types of sugary foods and drinks consumed, and overall sugar consumption patterns.

Frequency of Sugar Intake

Students exhibited frequent consumption of sugary items, particularly during periods of academic pressure. Items such as "I consume sugary drinks to stay awake" produced weighted mean values as high as 3.65 (Agree). This indicates a strong reliance on sweetened beverages (e.g., milk tea, iced coffee, energy drinks) as an immediate response to cognitive fatigue.

Types of Sugary Foods and Drinks Consumed

Respondents reported consuming:

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a. Milk tea and sweetened coffee
b. Bread pastries and cookies
c. Chocolates and candies
d. Sweetened canned drinks

The weighted mean of 3.04 shows that sweets are regularly incorporated into their daily routines.

Sugar Consumption Patterns

Patterns suggest that students increase their sugar intake during examinations, long study hours, or stressful weeks. Weighted means around 3.11–3.25 confirm that sugar consumption spikes when stress peaks.

Coping Mechanisms

Three types of coping mechanisms were measured:

1. Stress Reduction Techniques (breathing exercises, rest, relaxation)
2. Time Management Strategies
3. Cognitive-Behavioral Techniques (CBT)

While many students acknowledged using these strategies, only time management and CBT showed significant associations with reduced stress levels. Stress reduction techniques, however, did not significantly correlate with lower sugar intake.

TABLE 1. Correlation Between Academic Stressors and Frequency of Sugar Intake

Academic Stressor	Frequency of Sugar Intake (ρ)	p-value	Interpretation
Course Load	.745	.000	Significant
Time Management Challenges	.695	.000	Significant
Clinical Internship	.595	.000	Significant

TABLE 2. Correlation Between Academic Stressors and Types of Sugary Foods Consumed

Academic Stressor	Types of Sugary Foods (ρ)	p-value	Interpretation
Course Load	.746	.000	Significant
Time Management Challenges	.670	.000	Significant
Clinical Internship	.715	.000	Significant

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TABLE 3. Correlation Between Academic Stressors and Sugar Consumption Patterns

Academic Stressor	Sugar Patterns (ρ)	p-value	Interpretation
Course Load	.744	.000	Significant
Time Management Challenges	.708	.000	Significant
Clinical Internship	.638	.000	Significant

4.1 DISCUSSION

The findings of this study highlight the close connection between academic stress and sugar intake among Allied Health students, offering important insights into how academic pressures shape dietary behaviors. The data clearly indicate that students experiencing high levels of stress particularly due to heavy course loads tend to consume more sugar-rich foods and beverages. This aligns with established physiological theories, such as the General Adaptation Syndrome, which explains how stress triggers hormonal changes, particularly increases in cortisol, that stimulate cravings for high-sugar and high-calorie foods.

Course load emerged as the strongest predictor of sugar intake. When students face multiple deadlines, laboratory requirements, examinations, and project submissions, they often experience mental fatigue and decreased energy levels. This leads them to seek immediate sources of energy in the form of sweetened drinks or snacks. These findings support existing literature showing that stressed students frequently turn to sugar as a coping mechanism because of its ability to provide short-term alertness and pleasure. However, this pattern may become problematic when repeated over extended periods, as it increases the risk of long-term health complications.

Time management challenges also showed a significant relationship with sugar intake. Students who struggle to manage their schedules often skip meals or rush through their day with limited time for proper nutrition. As a result, they may replace well-balanced meals with sugary snacks that are quickly accessible and more convenient during busy academic days. This tendency mirrors findings from international studies that associate poor organizational skills with poor dietary habits, including erratic meal patterns and emotional eating.

Clinical internship stress likewise contributed significantly to sugar intake. Students undergoing internships face unique pressures, including patient care responsibilities, unpredictable workloads, and high expectations from clinical supervisors. These demands increase both physical and mental exhaustion, prompting interns to consume sugary snacks or beverages to maintain alertness. This supports previous research indicating that healthcare students are especially prone to stress-induced eating due to the emotionally demanding nature of clinical environments.

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A notable finding is that coping mechanisms did not significantly reduce sugar intake, even though some strategies lowered academic stress. This suggests that sugar consumption may be more habitual and culturally reinforced rather than purely stress-driven. The accessibility of sweetened beverages around campus and the popularity of fast, convenient snacks also contribute to sustained sugar intake regardless of stress levels. This indicates that intervention programs must target not only stress management but also dietary awareness, environment, and habit formation.

Overall, the discussion reveals a complex relationship between academic stress and dietary behavior. While stress increases sugar intake, reducing stress alone does not automatically result in healthier eating patterns. This study emphasizes the importance of integrated solutions that address both psychological stress and nutritional behaviors within academic institutions.

CONCLUSION

This study concludes that academic stress plays a significant role in shaping the sugar intake habits of Allied Health students at Perpetual Help College Manila. The findings reveal that students experiencing higher academic stress—whether due to course load, time management difficulties, or clinical internship responsibilities—tend to consume more sugar-rich foods and beverages. Among the three stress indicators, course load showed the strongest and most consistent correlation with sugar intake across all measured aspects, demonstrating how academic requirements directly influence students' dietary decisions.

While students make use of various coping mechanisms to manage their stress, such as relaxation techniques, time management strategies, and cognitive-behavioral approaches, these strategies appear to be effective only in reducing stress and not in altering sugar consumption behaviors. This indicates that sugar intake among students is influenced not only by stress but also by ingrained habits, environmental factors, and the widely held belief that sugary foods and drinks provide immediate energy and concentration. Despite their temporary benefits, excessive sugar consumption may lead to negative health outcomes over time, including fatigue, decreased cognitive performance, and chronic health issues.

The study highlights the need for comprehensive wellness programs that address both stress management and dietary behaviors. Simply lowering academic stress may not reduce students' reliance on sugary foods unless accompanied by nutrition education and healthier campus food options. With Allied Health students being future health professionals, it is crucial that they develop habits that align with the principles of health promotion and disease prevention. The findings underscore the importance of institutional support in fostering healthier learning environments that encourage balanced nutrition, effective stress management, and sustainable lifestyle choices.

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RECOMMENDATION

The results of this study provide a strong basis for several recommendations aimed at improving student well-being, academic performance, and dietary health. First, the institution should invest in strengthening stress management programs designed specifically for Allied Health students. Workshops on time management, academic planning, cognitive-behavioral strategies, and mindfulness can help students cope more effectively with the pressures of coursework and clinical training. These programs should be offered regularly and aligned with periods of high academic demand, such as midterm and final examination weeks.

Second, the school should incorporate nutrition education into student wellness initiatives. Many students may not fully understand the short-term and long-term consequences of excessive sugar intake, particularly during stressful academic periods. Seminars, infographics, and health promotion campaigns can help raise awareness about healthier alternatives to sugar-rich snacks and beverages. Integrating nutritional awareness into foundational courses may also encourage students to adopt healthier eating habits throughout their academic journey.

Third, the campus environment plays an important role in shaping dietary behavior. For this reason, the institution should evaluate and improve the food options available in school canteens and nearby vendors. Providing affordable and accessible healthier alternatives—such as fresh fruits, whole-grain snacks, and unsweetened beverages—can make it easier for students to make better dietary choices. Limiting the availability of excessively sugary drinks and snacks in school premises may also contribute to healthier eating patterns.

Finally, future research should consider exploring additional variables such as emotional eating tendencies, sleep patterns, peer influence, and socioeconomic factors to gain a more comprehensive understanding of the relationship between academic stress and dietary behavior. Longitudinal research may further provide insight into how stress and eating patterns change over the course of a student's academic career. Through these combined efforts, the institution can foster a more supportive and health-conscious academic environment for all students.

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