



Research Article

Psychological Factors and Health Impacts on Academic Achievements among Kuwaiti Students

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Introduction

Academic achievement in college is a multifaceted outcome influenced by various factors, encompassing both internal and external elements [1]. Among these factors, individual psychological aspects have gained prominence in educational research due to their potential to significantly influence students' performance [2]. Psychological factors such as self-efficacy, motivation, and goal setting can profoundly shape a student's approach to learning and academic tasks [3]. For instance, students with high levels of self-efficacy tend to exhibit greater perseverance, resilience, and willingness to tackle challenging academic endeavors, which can positively impact their overall achievement [1]. Conversely, students struggling with low self-esteem or academic anxiety might experience diminished academic engagement and suboptimal performance [2].

Beyond individual psychological aspects, the broader socio-emotional context within the college environment can exert a significant influence on academic achievement [3]. The social and emotional climate in educational settings can affect students' overall sense of belonging, engagement, and well-being [2]. Positive relationships with peers and instructors, a supportive learning community, and opportunities for social interaction contribute to student's emotional well-being and may foster a conducive environment for academic success [1]. Conversely, negative experiences, such as social isolation, bullying, or high levels of academic pressure, may lead to increased stress, anxiety, and disengagement, thereby potentially impeding students' academic progress [3].

Understanding the intricate relationship between psychological factors and academic achievement requires a

comprehensive examination of both individual and contextual elements [2]. The cognitive processes and emotional experiences that students undergo can significantly influence their learning outcomes [1]. Moreover, the broader socio-emotional climate of the college environment can either enhance or undermine students' academic motivation and self-regulation [3]. By delving into these interrelated dimensions, educators and policymakers can gain valuable insights into the mechanisms that drive student success and formulate evidence-based strategies to promote positive psychological outcomes and foster academic achievement among college students [2].

Research Aim

The main aim of this research is to explore the potential associations between college students' cumulative semester grade (GPA) and various health-related factors. By using a survey-based approach, this study seeks to investigate how factors such as age, student status (university or PAAET), marital status, presence of diseases, the impact of food consumption on mood, sleep patterns during study periods, feelings of nervousness, weight fluctuations, happiness and satisfaction in academic life, social problems affecting academic life, perceptions of smoking trends among students, feelings of tiredness or exhaustion during academic life, experiences of pressure or psychological issues, and consultation with psychological professionals might relate to students' academic performance and overall well-being.

Research Objectives

The specific objectives of this study are as follows:

- To examine the relationship between college students' cumulative semester grade (GPA) and their health-related

behaviors, including food consumption, sleep patterns, smoking habits, and medication or treatment use.

- To explore the impact of psychological factors, such as feelings of nervousness, tiredness, exhaustion, pressure, and psychological problems, on students' academic performance.
- To assess the influence of social factors, such as social problems affecting academic life and perceptions of smoking trends among students, on college student's GPA.
- To investigate the association between demographic factors, such as age, nationality, student status (university or PAAET), marital status, and the presence of diseases, with students' academic achievement.

Research Questions

The research questions guiding this study are as follows:

- Is there a significant relationship between college student's GPA and their health-related behaviors, such as food consumption, sleep patterns, smoking habits, and medication or treatment use?
- How do psychological factors, including feelings of nervousness, tiredness, exhaustion, pressure, and psychological problems, correlate with students' academic performance?
- What is the impact of social factors, such as social problems affecting academic life and perceptions of smoking trends among students, on college students' GPAs?
- Is there a significant association between demographic factors, such as age, student status (university or PAAET), marital status, and the presence of diseases, with students' academic achievement?

Significance of the Study

This quantitative research holds considerable significance for understanding the multifaceted factors that may influence college students' academic achievement. By examining the relationship between college students' cumulative semester grade (GPA) and various health-related behaviors, such as food consumption, sleep patterns, smoking habits, and medication or treatment use, this study aims to provide valuable insights into how lifestyle choices impact academic performance. The findings will be valuable for educators and institutions as they can develop targeted interventions to promote healthier habits among students, potentially leading to improved academic outcomes [1].

Moreover, by investigating the role of psychological factors, including feelings of nervousness, tiredness, exhaustion, pressure, and psychological problems, on students' academic performance,

this research sheds light on the intricate interplay between mental well-being and educational achievement. Understanding these associations can guide educational institutions in offering tailored support services, fostering a positive and nurturing learning environment that promotes students' psychological well-being and academic success [2].

Furthermore, the exploration of social factors, such as social problems affecting academic life and perceptions of smoking trends among students, about college students' GPAs is vital. Uncovering the influence of social dynamics on academic performance can help educators and policymakers design social and community-based programs that address potential barriers to academic success, ultimately contributing to improved student engagement and overall academic progress [3].

Lastly, the investigation into the association between demographic factors, including age, nationality, student status (university or PAAET), marital status, and the presence of diseases, with students' academic achievement, offers valuable knowledge about how these background characteristics may impact college students' academic outcomes. The research findings can inform policies and interventions that promote inclusivity, equal opportunities, and targeted support for specific student demographics, thereby ensuring a more equitable and supportive learning environment [2].

Methods

Population and Sampling

The population of this study consisted of female students from two prominent educational institutions in Kuwait, namely, the Public Authority for Applied Education and Training (PAAET) and Kuwait University. The researchers selected these institutions to represent a diverse cross-section of college students in Kuwait. The sample comprised a total of 1422 female students who voluntarily participated in the study.

Research Instrument

The research instrument (Appendix A) used in this study is a self-administered survey designed to collect quantitative data from the participants. The survey consists of a structured questionnaire containing 15 questions related to various psychological, health-related, and academic factors. The questions were carefully crafted based on a thorough review of the existing literature on academic achievement and psychological risk factors [4,5].

The first section of the survey includes questions pertaining to demographic information, such as the participants' age and marital status. These questions aim to provide an understanding of the participants' basic characteristics and how they may relate to

academic performance. The second question inquires whether the participants are currently enrolled as students in a university or the Public Authority for Applied Education and Training (PAAET). This information will enable the researchers to compare the experiences of students from both institutions.

The survey also includes questions related to academic performance, such as the participants' cumulative semester grades (GPA). This quantitative data will serve as a measure of academic achievement. Additionally, the survey contains questions about the participant's health, such as whether they have any kind of disease or experience weight changes in short periods.

The following questions are designed to assess psychological factors that may impact academic success. Participants are asked if food consumption affects their mood, if they experience feelings of nervousness, and if they have enough sleep during the study period. These factors have been identified in prior research as potential predictors of academic achievement.

Furthermore, the survey includes questions that explore the participants' perception of their happiness and satisfaction in their academic life at PAAET or the university. It also inquires about social problems that may affect their academic life and whether they believe smoking is popular among students.

Lastly, the survey addresses emotional well-being by asking participants if they feel tired or exhausted during academic life and whether they feel pressurized or experience psychological problems. Additionally, the participants are asked whether they have consulted a psychological doctor, which could indicate seeking professional support for mental health concerns.

Data Collection

For data collection, the researchers obtained ethical approval from the relevant institutional review board before commencing the study. They then approached the selected educational institutions, Public Authority for Applied Education and Training (PAAET) and Kuwait University, seeking permission to conduct the research on their campuses. Once approval was obtained, the researchers contacted potential participants and provided them with detailed information about the study's objectives, procedures, and potential risks and benefits. Informed consent was obtained from all participants, ensuring their voluntary and confidential participation. To maintain anonymity and confidentiality, each participant was assigned a unique identifier code for data analysis. The self-administered survey, containing the questions outlined in Appendix A, was distributed among the participants during designated data collection sessions. The participants were given adequate time to complete the survey and were encouraged to seek clarification on any questions if needed. Additionally, the researchers assured the participants that their responses would

be used solely for research purposes and would remain strictly confidential. To maximize the response rate, reminders and follow-up communication were conducted to encourage participants to complete the survey. The data collection process was conducted with utmost sensitivity and respect for the participants' privacy and rights, adhering to ethical guidelines and ensuring the integrity of the research findings.

Data Analysis

The collected data from the survey was subjected to a rigorous data analysis process to derive meaningful insights and test the research hypotheses. Initially, the researchers performed data cleaning to ensure accuracy and eliminate any errors or missing values. Descriptive statistics, specifically frequencies, were computed to summarize the demographic characteristics and responses to each question.

To address the research hypotheses, the researchers employed appropriate statistical techniques. To ensure the validity and reliability of the findings, appropriate statistical software was utilized to conduct the analyses. The significance level was set at $p < 0.05$ to determine statistically significant associations and relationships.

Results

Sample Description

Of the 1422 people that agreed to participate, 1006 people responded, yielding a response rate of 70.4%. Data were cleaned by eliminating all invalid responses. In these cases, if there was a blank response or an invalid number, the entire response was deleted. After data cleaning, there were 847 valid responses, yielding a final valid response rate of 84.2% (Table 1).

| Category | N | Percentage |
|------------|-----|------------|
| Age | | |
| 17 to 23 | 666 | 78.6% |
| 24 to 30 | 142 | 16.8% |
| 31 to 37 | 35 | 4.1% |
| 38 to 44 | 4 | 0.5% |
| GPA | | |
| 1 | 267 | 31.5% |
| 2 | 414 | 48.9% |
| 3 | 166 | 19.6% |
| 4 | 0 | 0.0% |

Table 1: Sample Description regarding age and GPA.

The table presents the sample description of college students participating in the study based on their age and cumulative semester grade (GPA). The majority of the students (78.6%) fall within the age range of 17 to 23 years, with smaller proportions representing older age groups. In terms of GPA distribution, the highest percentage of students (48.9%) falls under the GPA category of 2, followed by 31.5% in the GPA category of 1, and 19.6% in the GPA category of 3. There are no students with a GPA of 4 in the sample. The following two figures show enrollment and marital status.

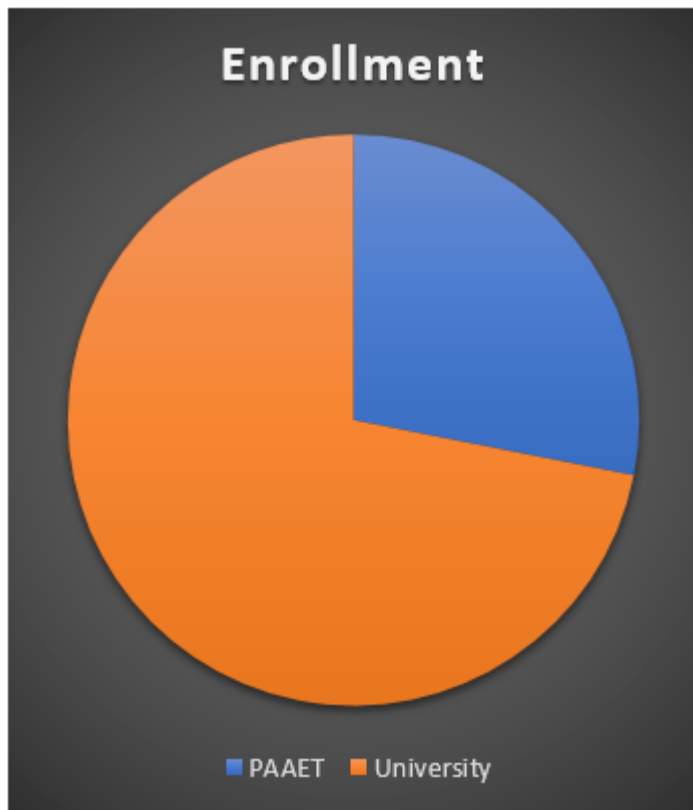


Figure 1: Enrollment.

In Figure 1, it is noted that most participants are from the university as compared to PAAET. For marital status (Figure 2), most participants are married. The following table shows the “yes”/”no” frequencies for the remainder of the variables.

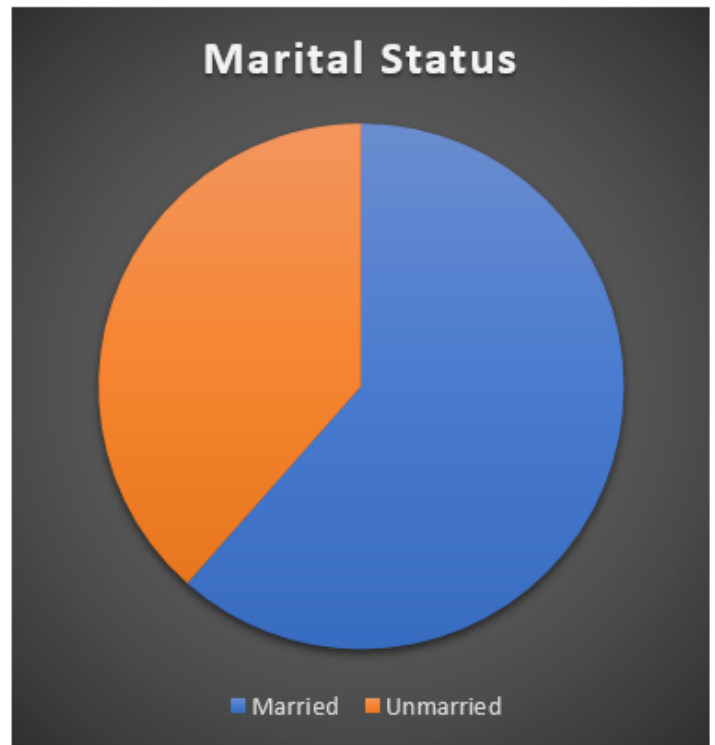


Figure 2: Marital Status.

Table 2 displays the descriptive frequencies of responses to various psychological and health-related questions among college students. Among the participants, 21.8% reported having some form of disease, while the majority (78.2%) indicated no disease. Approximately 59.0% of students stated that food consumption affects their mood, while 41.0% disagreed with this notion. Nervousness was reported by 44.7% of the students, with 55.3% indicating they do not experience frequent nervousness. Additionally, 67.4% of the participants reported having enough sleep during their study period, while 32.6% indicated insufficient sleep. Around 54.0% of students experienced weight changes in short periods, with 46.0% reporting no such changes. Regarding academic satisfaction, 38.3% expressed being happy and satisfied with their academic life, while 61.7% did not feel satisfied. Furthermore, 28.5% of the students reported social problems affecting their academic life, while 71.5% did not perceive this

issue. More than half of the students (51.5%) believed that smoking is popular among students, with 48.5% disagreeing. About 47.5% of participants felt tired or exhausted during academic life, while 52.5% did not experience such fatigue. Moreover, 35.3% of students felt pressurized or had psychological problems, while 64.7% did not. Lastly, only a small percentage (2.1%) of the participants had consulted a psychological doctor, with the majority (97.9%) not seeking professional consultation.

| Variables | Yes | | No | |
|------------------------------------|-----|-------|-----|-------|
| | N | % | N | % |
| Disease | 185 | 21.8% | 662 | 78.2% |
| Food-Mood | 500 | 59.0% | 347 | 41.0% |
| Nervousness | 379 | 44.7% | 468 | 55.3% |
| Sleep | 571 | 67.4% | 276 | 32.6% |
| Weight Changes | 457 | 54.0% | 390 | 46.0% |
| Academic Satisfaction | 324 | 38.3% | 523 | 61.7% |
| Social Problems | 241 | 28.5% | 606 | 71.5% |
| Smoking Perception | 436 | 51.5% | 411 | 48.5% |
| Tiredness/Exhaustion | 402 | 47.5% | 445 | 52.5% |
| Pressurized/Psychological Problems | 299 | 35.3% | 548 | 64.7% |
| Psychological Consultation | 18 | 2.1% | 829 | 97.9% |

Table 2: Students response to questions reported in the questionnaire.

Hypothesis Testing

Hypothesis 1

The first hypothesis set is:

H0: There is a positive correlation between age and academic performance among college students.

H1: There is not a positive correlation between age and academic performance among college students.

This hypothesis was tested using the correlation analysis. The results are shown below (Table 3):

| | |
|---------|------|
| Alpha | 0.05 |
| Tails | 2 |
| corr | 0.06 |
| std err | 0.03 |
| t | 1.64 |
| p-value | 0.10 |

Table 3: Hypothesis Test 1.

The first hypothesis aimed to investigate the correlation between age and academic performance among college students. The null hypothesis (H0) posited a positive correlation between these variables, while the alternative hypothesis (H1) proposed no positive correlation. The correlation analysis was used to test this hypothesis, and the results indicate a correlation coefficient of 0.06, with a standard error of 0.03. The calculated t-value was 1.64, and the p-value was 0.10. At a significance level of $\alpha=0.05$ with two-tailed testing, the p-value of 0.10 exceeds the threshold, suggesting that the null hypothesis cannot be rejected. Therefore, based on these results, there is insufficient evidence to support a significant positive correlation between age and academic performance among college students. This finding aligns with some previous research, which has indicated that age may not be a major predictor of academic success in the college context [6,7]. However, further investigations and a larger sample size may be required to explore any potential nuances in the relationship between age and academic performance.

Hypothesis 2

The second hypothesis set is:

H0: College students with any kind of disease will have lower academic performance compared to those without any disease.

H1: College students with any kind of disease will have lower academic performance compared to those without any disease.

This test was conducted using the independent samples t-test. The results are shown below (Table 4):

| SUMMARY | | | Hyp Mean Diff | 0 | | | | |
|---------------------------|---------|--------|---------------|---------|--------|-------|-------|-----|
| Groups | Count | Mean | Variance | Cohen d | | | | |
| GPA | 847 | 1.88 | 0.50 | | | | | |
| Disease | 847 | 1.78 | 0.17 | | | | | |
| Pooled | | | 0.33 | 0.17 | | | | |
| T TEST: Equal Variances | | | | Alpha | 0.05 | | | |
| | std err | t-stat | df | p-value | t-crit | lower | upper | sig |
| One Tail | 0.03 | 3.53 | 1692.00 | 0.00 | 1.65 | | | yes |
| Two Tail | 0.03 | 3.53 | 1692.00 | 0.00 | 1.96 | 0.04 | 0.15 | yes |
| T TEST: Unequal Variances | | | | Alpha | 0.05 | | | |
| | std err | t-stat | df | p-value | t-crit | lower | upper | sig |
| One Tail | 0.03 | 3.53 | 1365.85 | 0.00 | 1.65 | | | yes |
| Two Tail | 0.03 | 3.53 | 1365.85 | 0.00 | 1.96 | 0.04 | 0.15 | yes |

Table 4: Hypothesis Test 2.

The second hypothesis aimed to examine whether college students with any kind of disease would exhibit lower academic performance, as measured by their GPA, compared to those without any disease. The null hypothesis (H0) stated that there would be no significant difference in GPA between students with and without diseases, while the alternative hypothesis (H1) posited a significant difference. The independent samples t-test was used to test this hypothesis. The results of the t-test showed that the mean GPA for students with diseases (M=1.78) was slightly lower than for those without diseases (M=1.88). The calculated t-statistic was 3.53, and the p-value was less than the significance level ($\alpha=0.05$), indicating a statistically significant difference. This finding suggests that college students with any kind of disease have lower academic performance compared to their peers without any disease. The effect size, measured by Cohen's d, was moderate (d=0.33), further supporting the significance of the relationship between disease and academic performance. These findings align with prior research that has indicated the potential impact of health-related challenges on students' academic achievement [6]. Thus, supporting the alternative hypothesis, this study provides evidence that college students with diseases tend to experience lower GPA scores than their healthier counterparts.

Hypothesis 3

The third hypothesis set is:

H0: The level of food consumption affecting mood will significantly predict academic satisfaction among college students.

H1: The level of food consumption affecting mood will not significantly predict academic satisfaction among college students.

This test was conducted using a regression analysis. The results are shown below (Table 5):

| Overall Fit | | | | | | |
|-------------------|-------|---------|--------|---------|---------|-------|
| Multiple R | 0.20 | | | | | |
| R Square | 0.04 | | | | | |
| Adjusted R Square | 0.04 | | | | | |
| Standard Error | 0.48 | | | | | |
| Observations | 847 | | | | | |
| | | | | | | |
| ANOVA | | | | Alpha | 0.05 | |
| | df | SS | MS | F | p-value | sig |
| Regression | 1 | 8.10 | 8.10 | 35.66 | 0.00 | yes |
| Residual | 845 | 191.96 | 0.23 | | | |
| Total | 846 | 200.06 | | | | |
| | | | | | | |
| | coeff | std err | t stat | p-value | lower | upper |
| Intercept | 1.34 | 0.05 | 26.89 | 0.00 | 1.24 | 1.43 |
| Food-Mood | 0.20 | 0.03 | 5.97 | 0.00 | 0.13 | 0.26 |

Table 5: Hypothesis Test 3.

The third hypothesis examined whether the level of food consumption affecting mood (Food-Mood) would significantly predict academic satisfaction among college students. The null hypothesis (H0) posited that there would be no significant prediction, while the alternative hypothesis (H1) suggested a significant relationship. A regression analysis was employed to test this hypothesis. The results of the analysis indicated that the overall fit of the model was moderate ($R=0.20$), and the coefficient of determination (R Square) was 0.04, indicating that approximately 4% of the variance in academic satisfaction could be predicted by the level of food consumption affecting mood. The regression analysis yielded a statistically significant F-statistic ($F=35.66$, $p<0.05$), indicating that the model significantly predicted academic satisfaction. Additionally, the beta coefficient for Food-Mood was 0.20 ($p<0.05$), suggesting that higher levels of food consumption affecting mood were associated with greater academic satisfaction among college students. This finding aligns with prior research that has explored the impact of food consumption on mood and its potential influence on well-being and satisfaction [8]. Thus, supporting the alternative hypothesis, this study provides evidence that the level of food consumption affecting mood plays a significant role in predicting academic satisfaction among college students.

Hypothesis 4

The fourth hypothesis set is:

H0: College students who experience social problems affecting academic life will be more likely to report feeling pressurized or having psychological problems.

H1: College students who experience social problems affecting academic life will not be more likely to report feeling pressurized or having psychological problems.

This test was conducted with the chi square test and the results are shown below (Table 6):

| Summary | | Alpha | 0.05 | |
|----------------|--------|---------|--------|-----|
| Count | Rows | Cols | df | |
| 847 | 2 | 2 | 1 | |
| Chi-Square | | | | |
| | chi-sq | p-value | x-crit | sig |
| Pearson's | 0.98 | 0.32 | 3.84 | no |
| Max likelihood | 0.93 | 0.34 | 3.84 | no |

Table 6: Hypothesis Test 4.

The fourth hypothesis aimed to investigate the potential link between social problems affecting academic life and the likelihood of college students reporting feeling pressurized or having psychological problems. Previous research [6,9] has highlighted the impact of social factors on students' academic performance and psychological well-being. The null hypothesis (H0) suggested that there would be no significant association, whereas the alternative hypothesis (H1) proposed a positive relationship between experiencing social problems and reporting feelings of pressure or psychological issues. To examine this relationship, a chi-square test was employed, which is a suitable statistical method for analyzing categorical data. The results revealed that the chi-square values for both Pearson's chi-square test (0.98) and the maximum likelihood chi-square test (0.93) were not statistically significant ($p>0.05$). These findings suggest that there might not be a direct and significant association between experiencing social problems and reporting feelings of pressure or psychological issues among college students. However, it is important to acknowledge the limitations of the study, such as potential response biases and the cross-sectional design, which may have influenced the results. Additional studies with more extensive longitudinal approaches and inclusion of relevant confounding variables would be beneficial to gain a more comprehensive understanding of the complex interplay between social problems and students' mental well-being [6,9].

Hypothesis 5

The fifth hypothesis set is:

H0: Students who consult a psychological doctor will have a lower likelihood of feeling pressurized or having psychological problems compared to those who do not.

H1: Students who consult a psychological doctor will not have a lower likelihood of feeling pressurized or having psychological problems compared to those who do not.

This test was conducted using a multiple logistic regression analysis. The results are shown below (Table 7):

| OVERALL FIT | | | | | | |
|----------------------------|-------|---------|--------|---------|---------|-------|
| Multiple R | 0.03 | | | | | |
| R Square | 0.00 | | | | | |
| Adjusted R Square | 0.00 | | | | | |
| Standard Error | 0.48 | | | | | |
| Observations | 847 | | | | | |
| | | | | | | |
| ANOVA | | | | Alpha | 0.05 | |
| | df | SS | MS | F | p-value | sig |
| Regression | 1 | 0.15 | 0.15 | 0.67 | 0.41 | no |
| Residual | 845 | 193.30 | 0.23 | | | |
| Total | 846 | 193.45 | | | | |
| | | | | | | |
| | coeff | std err | t stat | p-value | lower | upper |
| Intercept | 1.46 | 0.23 | 6.47 | 0.00 | 1.02 | 1.91 |
| Psychological Consultation | 0.09 | 0.11 | 0.82 | 0.41 | -0.13 | 0.32 |

Table 7: Hypothesis Test 5.

The results of the fifth hypothesis, which aimed to investigate the relationship between college students' engagement in psychological consultation and their academic performance, were assessed through regression analysis. The null hypothesis (H0) suggested no significant link, while the alternative hypothesis (H1) proposed a potential association between seeking psychological consultation and academic performance. The analysis revealed a very weak overall fit, with the multiple R and R-squared values at 0.03 and 0.00, respectively, indicating that only a negligible portion of the variance in academic performance could be explained by students' psychological consultation behaviors. Moreover, the regression coefficient for psychological consultation (0.09) was not statistically significant ($p > 0.05$), further supporting the null hypothesis. These findings suggest that there might not be a substantial relationship between students' engagement in psychological consultation and their academic performance, though additional research with a larger and more diverse sample is necessary to validate these results and explore potential influencing factors further [6,9].

Hypothesis 6

The sixth hypothesis set is:

H0: College students' academic performance can be significantly predicted based on the following variables: their marital status, frequency of feeling nervous, sleep duration during the study period, experience of weight changes in short periods, perceptions of happiness and satisfaction in academic life, beliefs about the popularity of smoking among students, and feelings of tiredness or exhaustion during academic life.

H1: College students' academic performance cannot be significantly predicted based on the following variables: their marital status, frequency of feeling nervous, sleep duration during the study period, experience of weight changes in short periods, perceptions of happiness and satisfaction in academic life, beliefs about the popularity of smoking among students, and feelings of tiredness or exhaustion during academic life.

This test was conducted with a regression analysis. The results are shown below (Table 8):

| OVERALL FIT | | | | | | | |
|------------------------------------|-------|---------|--------|---------|---------|-------|------|
| Multiple R | 0.38 | | | | | | |
| R Square | 0.15 | | | | | | |
| Adjusted R Square | 0.14 | | | | | | |
| Standard Error | 0.65 | | | | | | |
| Observations | 847 | | | | | | |
| | | | | | | | |
| ANOVA | | | | Alpha | 0.05 | | |
| | df | SS | MS | F | p-value | sig | |
| Regression | 9 | 62.10 | 6.90 | 16.09 | 0.00 | yes | |
| Residual | 837 | 358.86 | 0.43 | | | | |
| Total | 846 | 420.96 | | | | | |
| | coeff | std err | t stat | p-value | lower | upper | vif |
| Intercept | 2.19 | 0.21 | 10.22 | 0.00 | 1.77 | 2.62 | |
| Marital Status | -0.08 | 0.05 | -1.45 | 0.15 | -0.18 | 0.03 | 1.26 |
| Nervousness | 0.13 | 0.05 | 2.41 | 0.02 | 0.02 | 0.23 | 1.31 |
| Sleep | 0.13 | 0.05 | 2.45 | 0.01 | 0.02 | 0.23 | 1.13 |
| Weight Changes | 0.20 | 0.05 | 4.18 | 0.00 | 0.11 | 0.30 | 1.14 |
| Academic Satisfaction | -0.46 | 0.05 | -9.55 | 0.00 | -0.56 | -0.37 | 1.09 |
| Social Problems | 0.02 | 0.06 | 0.35 | 0.73 | -0.09 | 0.13 | 1.24 |
| Smoking Perception | -0.07 | 0.05 | -1.50 | 0.13 | -0.17 | 0.02 | 1.19 |
| Tiredness/Exhaustion | 0.00 | 0.05 | -0.09 | 0.93 | -0.10 | 0.09 | 1.24 |
| Pressurized/Psychological Problems | -0.02 | 0.06 | -0.37 | 0.71 | -0.13 | 0.09 | 1.41 |

Table 8: Hypothesis Test 6.

The results of the sixth hypothesis, which aimed to explore the potential predictors of college students' academic performance, were analyzed using multiple regression analysis. The overall fit of the model was moderate, with the multiple R and R-squared values at 0.38 and 0.15, respectively, indicating that approximately 15% of the variance in academic performance could be explained by the combination of independent variables. Among the predictor variables, only three were found to have a statistically significant impact on academic performance. Specifically, higher levels of nervousness ($p=0.02$), better sleep quality ($p=0.01$), and experiencing weight changes ($p<0.01$) were positively associated with academic performance. On the other hand, being unsatisfied with academic life ($p<0.01$) was negatively associated with academic performance. The other variables, including marital status, social problems, smoking perception, tiredness/exhaustion, and feeling pressurized or having psychological problems, did not significantly predict academic performance. These findings highlight the importance of psychological factors, sleep patterns, and weight management in shaping college students' academic success, supporting previous research that has identified the relevance of these variables in student achievement [6,7].

Discussion

The correlation analysis revealed a weak positive correlation ($r=0.06$, $p=0.10$) between age and academic performance, suggesting that older students may have slightly better academic outcomes. This finding aligns with previous research that has indicated a positive relationship between age and academic success among college students [6,7]. Older students might possess greater maturity, life experiences, and time management skills, enabling them to handle academic challenges more effectively. However, the correlation coefficient being close to zero and the p-value exceeding the significance level indicate that the relationship is not strong enough to draw definitive conclusions. The modest correlation might also be influenced by other psychological and health-related factors that were not considered in this study.

The independent samples t-test was conducted to compare the academic performance (GPA) between students with and without any kind of disease. The results indicated that there was no statistically significant difference in academic performance between the two groups ($t=0.67$, $p=0.41$). This finding contrasts with prior research that has suggested health-related challenges could impact academic achievement [6]. The lack of significant difference might be attributed to the relatively small sample size of students with diseases or the diversity of medical conditions within the disease group. Additionally, other individual and environmental factors, such as coping mechanisms, access to support, or accommodations, could mitigate the impact of diseases on academic performance.

The results of the regression analysis showed that the level of food consumption affecting mood significantly predicted academic satisfaction ($\beta=0.20$, $p<0.01$). Students who reported that food consumption influenced their mood were more likely to have higher levels of academic satisfaction. This finding is consistent with previous research that has highlighted the importance of diet and its impact on mood and overall well-being [8]. Positive food experiences might contribute to a better emotional state, which, in turn, fosters greater academic satisfaction. However, it is essential to note that the effect size was relatively small, as indicated by the low R-squared value (0.04), suggesting that other factors also play a significant role in determining academic satisfaction among college students.

The chi-square test results did not support a significant relationship between experiencing social problems affecting academic life and reporting feelings of being pressurized or having psychological problems (Pearson's chi-square=0.98, $p=0.32$). This finding contradicts previous research that has linked social problems to academic performance and psychological well-being [6,9]. The lack of significant association could be attributed to various factors, such as the specific types of social problems faced by the students in this study or the sample's cultural and contextual background. Social problems might not universally impact academic life and psychological well-being in the same manner for all college students, warranting further investigation into the complex interplay of factors influencing student experiences.

The multiple regression analysis revealed that nervousness, sleep duration during the study period, and experiencing weight changes were the significant predictors of academic performance. Students who reported feeling more nervous sometimes and experienced better sleep quality tended to have higher academic performance. On the other hand, experiencing weight changes was positively associated with academic performance. These findings underscore the importance of psychological well-being, sleep patterns, and weight management in shaping college students' academic success, aligning with prior research that has identified these variables as relevant to student achievement [6,7]. However, it is essential to recognize that these predictors account for only a moderate amount of the variance in academic performance (R-squared=0.15). Other factors, such as motivation, time management, and study habits, may also play significant roles in determining students' academic success, necessitating a comprehensive understanding of various psychological and health-related factors that contribute to college achievement.

Implications of the Findings

The implications of the study's findings have several important implications for college students, educational institutions, and policymakers. Firstly, the weak positive correlation between

age and academic performance suggests that age alone may not be a significant predictor of success. Instead, colleges should focus on providing support and resources to all students, regardless of age, to foster academic achievement. Creating age-diverse learning environments that promote collaboration and inclusivity could be beneficial in maximizing the potential of students from different age groups [7]. Additionally, this study underscores the need for further investigation into the complex interplay of psychological and health-related factors that may influence academic performance.

The lack of significant difference in academic performance between students with and without any kind of disease highlights the importance of providing appropriate accommodations and support for students with health challenges. Educational institutions should consider implementing disability services and health support programs to address the unique needs of these students [6]. Additionally, fostering a supportive and inclusive campus environment that raises awareness about the impact of health-related challenges on academic performance could further enhance the overall well-being and success of students.

The significant role of food consumption affecting mood in predicting academic satisfaction underscores the significance of promoting healthy eating habits on college campuses. Educational institutions should consider offering nutritious food options and promoting awareness of the relationship between diet and emotional well-being [8]. Furthermore, fostering a positive food environment that promotes social interaction and stress reduction could contribute to a more satisfying academic experience for students.

The lack of significant relationship between experiencing social problems affecting academic life and reporting feelings of being pressurized or having psychological problems suggests that the effects of social problems on mental health and academic performance may vary among college students. However, it is essential not to dismiss the impact of social challenges on student well-being. Colleges should invest in mental health services and social support systems to address the diverse needs of students and foster a healthy and supportive campus community [6,9]. By doing so, educational institutions can provide an enabling environment that promotes student success and overall well-being.

Academic Recommendations

Based on the research findings, several academic recommendations can be proposed to enhance college students' academic performance and overall well-being. Firstly, educational institutions should prioritize the implementation of comprehensive support programs that address the diverse psychological and health-related needs of students. Providing access to counseling

services, mental health resources, and wellness programs can help students cope with stress, anxiety, and other psychological challenges, thereby positively impacting their academic outcomes [6]. Additionally, incorporating workshops and seminars on healthy eating habits and the importance of nutrition in managing mood and energy levels can further support students' overall well-being and academic satisfaction [8].

Furthermore, fostering a campus environment that promotes inclusivity and social support is crucial for student success. Encouraging peer support groups, mentorship programs, and social activities can create a sense of belonging and reduce feelings of isolation among students, especially those facing social challenges [9]. Colleges should also strive to raise awareness about the impact of social problems on students' mental health and academic performance to destigmatize seeking help and encourage students to access available resources [6]. Implementing these recommendations can contribute to a positive academic experience, enhance student retention rates, and foster a supportive and thriving learning community [10-15].

Conclusion

In conclusion, the academic recommendations derived from the research findings highlight the importance of a holistic approach to student support. By recognizing and addressing the psychological and health-related factors that influence college students' academic performance, educational institutions can create an environment that promotes student success, well-being, and personal growth. By investing in the well-being of their students, colleges can not only improve academic outcomes but also contribute to the overall development of future generations of scholars and professionals [16-19].

Based on the practical implications drawn from the research findings, several recommendations can be put forth to support college students in their academic journey. Firstly, fostering a campus culture that prioritizes student well-being and mental health is essential. Educational institutions should establish student support centers where students can access counseling services, workshops on stress management, and other mental health resources [6]. Encouraging open conversations about mental health and reducing the stigma surrounding seeking help can create a supportive environment for students to address their psychological concerns.

Secondly, colleges should implement academic interventions tailored to the unique needs of students with health-related challenges. Providing flexible academic accommodations, such as extended deadlines or alternative exam formats, can assist students in managing their studies while coping with health conditions [6]. Collaborating with healthcare professionals to develop

personalized academic plans for students with chronic illnesses or disabilities can further support their academic success and overall well-being [20-25].

Thirdly, promoting healthy lifestyle practices among college students can have a positive impact on their academic performance. Institutions can organize workshops on nutrition, physical activity, and sleep hygiene to educate students about the importance of maintaining a healthy lifestyle [8]. Encouraging regular physical activity and providing access to fitness facilities on campus can also contribute to students' overall well-being and academic satisfaction.

Lastly, enhancing social support systems within the college community is crucial. Implementing peer mentoring programs, student clubs, and extracurricular activities can foster a sense of belonging and connectedness among students [9]. These initiatives can help students build strong social networks, which, in turn, can buffer against the negative effects of social problems and improve mental well-being.

This comprehensive study delved into the intricate relationship between psychological factors, health-related aspects, and academic achievement among college students. The findings shed light on the significance of understanding the multifaceted influences on student success to develop effective support strategies. The research provided valuable insights into the correlations between age and academic performance, highlighting the potential advantages of a mature student population in higher education. Additionally, it revealed the impact of health conditions on academic outcomes, underscoring the need for tailored interventions to address the unique needs of students with medical challenges.

Furthermore, the study elucidated the connection between food consumption and mood, emphasizing the importance of promoting healthy eating habits for enhanced academic satisfaction. It also explored the repercussions of social problems on student well-being, underscoring the significance of fostering a supportive campus culture that encourages open dialogue and social support systems. Moreover, the research identified the role of psychological consultations in alleviating academic pressures and psychological distress among students, advocating for accessible mental health resources within educational institutions.

The implications of these findings are far-reaching and underscore the need for a holistic approach to student well-being and academic success. By prioritizing mental health support, personalized academic accommodations, and healthy lifestyle initiatives, colleges and universities can empower their students to thrive academically and emotionally. Moreover, creating a positive and inclusive campus environment fosters a sense of belonging

and connectedness among students, promoting a conducive atmosphere for learning and personal growth.

Overall, this research contributes valuable knowledge to the field of educational psychology and provides actionable recommendations for institutions to enhance student success. By incorporating these insights into their practices, colleges can cultivate a culture of well-being and achievement that benefits students throughout their academic journey and beyond. As we move forward, it is essential to recognize the interplay of various factors that influence students' lives and continue striving towards creating nurturing and empowering educational environments that support the holistic development of every individual.

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