

An Analytical Investigation Of Academic Stress And Mental Health Among College Students In Higher Education

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ABSTRACT

The issue of academic stress has become an important one among college students, since it is caused by high academic standards, exam pressure, heavy workloads and future career uncertainty, all of which may have a harmful effect on students' psychological state. The purpose of this research paper is to estimate the level of academic stress of students, to consider their mental health and to explore the connection between academic stress and mental health of students in higher education institutions. The research design used in this study was quantitative, descriptive and analytical. It included the cross-sectional survey method. Primary data were obtained from 150 undergraduate and graduate students of different programs by means of a structured questionnaire based on the five-point Likert scale. The collected data were processed through IBM SPSS Statistics (Version 26.0) by using descriptive statistics, Pearson's correlation and multiple linear regression analysis. As the result of the conducted research, it was found that there was a high level of academic stress among college students, where exam pressure, academic workload and assignment deadline were recognized as the main sources of stress. Besides, the respondents reported moderate to high level of mental health problems, including academic anxiety, emotional exhaustion, difficulties concentrating and sleeping problems. According to the results of correlation analysis, there was a significant negative correlation between academic stress and mental health, whereas, according to the results of regression analysis, academic stress turned out to be the significant predictor of students' psychological state. The research paper shows that the excessive academic stress has a harmful influence on the mental health of college students.

Keywords: Academic Stress, Mental Health, College Students, Higher Education, Psychological Well-being

1.INTRODUCTION

The problem of academic stress has gained much attention among the college students due to the high expectations from their part, examination pressure, heavy workload and uncertainties related to career choice which may negatively influence students' psychological condition. The current study is meant to measure the level of academic stress, evaluate the state of mental health of the college students, as well as analyze the connection between academic stress and mental health of the higher education institution students. Quantitative, descriptive, and analytical research design was used in the course of this study; specifically, cross-sectional survey approach was applied. The primary data collection process involved 150 undergraduate and postgraduate students who were surveyed using a structured questionnaire developed according to the five-point Likert scale. The gathered data were processed using IBM SPSS

Statistics (Version 26.0), where descriptive statistics, Pearson's correlation and multiple linear regression analysis were utilized. The results of the study have shown that the high level of academic stress among the college students was observed, where examination pressure, academic workload and assignments' deadlines were recognized as the main sources of the mentioned stress. The participants also indicated moderate to high level of mental health problems which included academic anxiety, emotional exhaustion, inability to concentrate and sleep disturbance. The correlation analysis has identified the statistically significant negative correlation between academic stress and mental health of the participants, while the regression analysis has shown that academic stress significantly predicted the psychological well-being of the participants.

1.1 Academic Stress Among College Students

Academic stress is the stress suffered by students owing to pressures related to education, which includes tests, assignments, academics load, competition, expectations from parents, and future careers (Gasser et al., 2025). The effects of prolonged academic stress include inability to concentrate, poor academic results, insomnia, emotional instability, and lack of motivation. Though stress can sometimes motivate a person for improved performance, in many cases, excessive stress leads to negative effects in education and psychology (Ghatpande & Anand, 2025).

1.2 Mental Health in Higher Education

Mental health is defined as the overall state of wellbeing of the psychological, emotional, and social aspects of an individual. Proper mental health helps students handle the stress and demands of academic performance, manage relationships positively, and achieve success academically (Karyotaki et al., 2020). However, constant exposure to academic stress can lead to anxiety, depression, burnout, and emotional problems. Higher institutions of learning have the key role of ensuring that the students get proper support for their mental wellness.

1.3 Academic Stress and Mental Health

There is a strong relationship between academic stress and mental health. Higher academic stress has been found to correlate with higher levels of psychological distress such as anxiety and depression, and lower life satisfaction (Mofatteh, 2020). Examination stress, workload, poor time management skills, and career uncertainty are some of the variables that can have an impact on the mental health of the students.

1.4. Research Objectives

The present study is undertaken with the following objectives:

- To study the academic stress among college students in higher education institutions.
- To investigate the mental well-being of college students in higher education institutions.
- To determine the association between academic stress and mental well-being among college students in higher education institutions.

2. REVIEW OF LITERATURE

In particular, Chandra (2021) carried out a study of the perception of academic stress and emotional intelligence as an instrument of its regulation among college students in the context of the coronavirus pandemic. According to the results of this work, the shift to distance

education caused by the pandemic led to increased academic stress associated with technological difficulties, social isolation, and academic overload of the students (Chandra, 2021). Also, the authors discovered that emotional intelligence positively affected the stress level and students' psychological well-being.

Abu Talib, Bettayeb, and Omer (2021) performed a systematic literature review to evaluate the influence of technology on the higher education system in the period of the coronavirus pandemic (Abu Talib et al., 2021). As a result of this research, the use of technology was found to ensure educational continuity for the students while causing the following challenges: screen time increase, technological barriers, lack of engagement, and high academic stress. Therefore, the proper implementation of technology should be accompanied by psychological and institutional support measures.

Clabaugh, Duque, and Fields (2021) performed research of academic stress and emotional well-being of American college students in the wake of the emergence of the coronavirus pandemic. In accordance with the results of the investigation, the students were faced with higher levels of stress, anxiety, and emotional distress associated with uncertainty, disruptions, and future educational and career opportunities (Clabaugh et al., 2021).

Son et al. (2020) investigated the impact of the COVID-19 pandemic on the mental well-being of college students via an interview-based survey study carried out in the USA. Son et al. (2020) found that the participants reported suffering from anxiety, depression, stress, sleeping problems, inability to concentrate and problems with academic performance. The researchers argued that educational organizations have to develop programs aimed at providing psychological help to students in case of emergencies.

Cage et al. (2021) investigated student mental well-being when transitioning into, during, and out of higher education using the perspective of students and staff. Cage et al. (2021) found that such factors as heavy workload, assessment pressure, difficulty in social adjustment, and insufficient availability of support services can cause psychological problems in students. Cage et al. (2021) pointed to the need for creating supportive university environment, increasing availability of counseling services, and raising the issue of students' mental health.

3. RESEARCH METHODOLOGY

3.1 Research Design

The current study has utilized quantitative, descriptive, and analytical research methodology to analyze academic stress and mental health of students enrolled in higher educational institutions. A descriptive research method was chosen to understand the existing levels of academic stress and mental health of the students, whereas an analytical method was used for examining the relationship between the two. The study has been carried out using a cross-sectional survey method, where information has been collected from respondents at one particular point of time using structured questionnaire.

3.2 Study Area

This research was carried out among students pursuing their education at universities. The respondents were chosen from various subjects and years of study to have a complete knowledge of academic pressure and mental well-being of college students.

3.3 Study Population

The target population was the university and post-university students who enrolled for higher education. The study population comprised students from various year groups, gender groups, and various places of residence.

3.4 Sample Size and Sampling Technique

A total of 150 college students were chosen as the sample for the research. Simple random sampling procedure was used to choose the respondents such that each student was equally likely to be part of the study.

3.5 Sources of Data

This research study was conducted using both primary and secondary data sources.

- **Primary Data:** Primary data was obtained from the participants directly using structured questionnaire.
- **Secondary Data:** Secondary data was obtained from books, research journals, research articles, reports published by government and non-government organizations, dissertations, conferences and any other authentic academic source.

3.6 Research Instrument

A structured questionnaire was used as the primary tool for data collection. The questionnaire was divided into three sections:

- Section A: Demographic Profile of Respondents
- Section B: Academic Stress Scale
- Section C: Mental Health Scale

Responses were recorded using a five-point Likert Scale:

Scale	Response
1	Strongly Disagree
2	Disagree
3	Neutral
4	Agree
5	Strongly Agree

The questionnaire items were developed based on an extensive review of relevant literature and standardized measurement scales.

3.7 Variables of the Study

The study was conducted on the following variables:

- Independent variable - Academic stress
- Dependent variable - Mental well-being

Academic stress was determined using measures such as test pressure, academic load, deadline pressure, competition, time management, parental expectations, and career issues. Mental well-being was determined using measures such as anxiety, emotional well-being, depression, concentration, sleep well-being, and emotional stability.

3.8 Data Collection Procedure

The main data were obtained through the use of the structured questionnaire distributed to the chosen respondents after getting their informed consent. The goals of the research were stated

to the respondents prior to collecting the data. It was also emphasized to them that their answers would be kept confidential and would only be used for academic purposes.

3.9 Data Analysis and Statistical Techniques

The data collected were analyzed using the following software: IBM SPSS Statistics (Version 26.0).

The following statistical methods were used in analysis:

- Frequency distribution
- Percentage distribution
- Average and standard deviation
- Independent Sample t-Test
- One-way Analysis of Variance (ANOVA)
- Correlation analysis
- Multiple linear regression analysis

Descriptive statistical methods were utilized in summarizing demographics and measuring levels of academic stress and mental well-being. Inferential statistical methods were used in analyzing associations between variables. Statistical significance was set at the 5% level of significance ($p < 0.05$).

3.10 Reliability and Validity of the Instrument

In order to maintain validity in the research tool, the questionnaire was scrutinized by educational and psychological experts. In preparation for the main survey, a pilot test was performed in order to determine the appropriateness of the questionnaire. Internal consistency of the instrument was determined using the Cronbach's Alpha measure and 0.70 or more was regarded as a good measure of reliability.

3.11 Ethical Considerations

The research was carried out according to ethical research standards. First of all, the consent of all respondents was received. All participants were assured of anonymity and confidentiality; only for educational purposes would the data be used. Respondents were informed about the voluntary nature of their participation and possibility of leaving the research at any moment of time.

4. DATA ANALYSIS AND INTERPRETATION

IBM SPSS Statistics (version 26.0) was used to analyze the gathered data. Descriptive statistics, including frequency, percentage, mean, and standard deviation, were used to describe the data, whereas inferential statistics, such as correlation and regression analysis, were used to explore the association between academic stress and mental health among college students.

4.1 Demographic Profile of the Respondents

Demographic variables among the respondents have been evaluated in order to know about the demographic structure of the study sample with regard to the gender of the participants, age group, programmer of study, and their residential location. In total, 150 college students responded to the questionnaire. Demographic data offer an overall picture of the respondents for better analysis of the results regarding academic stress and mental wellbeing.

TABLE 1: DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS (N = 150)

Variable	Category	Frequency	Percentage (%)
Gender	Male	72	48.0
	Female	78	52.0
Age	18–20 Years	42	28.0
	21–23 Years	69	46.0
	24–26 Years	28	18.7
	Above 26 Years	11	7.3
Programme	Undergraduate	96	64.0
	Postgraduate	54	36.0
Residence	Urban	85	56.7
	Rural	65	43.3

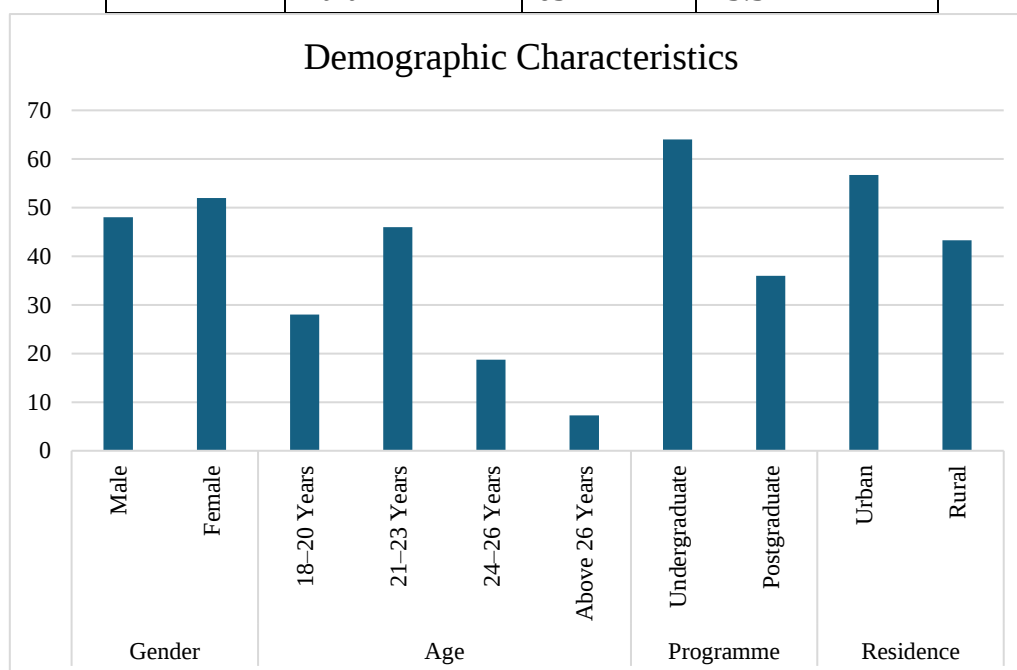


FIGURE 1: GRAPHICAL REPRESENTATION OF DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS (N = 150)

Demographic characteristics of the participants are presented in Table 1 below. Among the total number of 150 respondents, there were 78 respondents (52.0%) female and 72 respondents (48.0%) male, which shows almost an equal representation of both genders among the respondents with the domination of female participants. As concerns age, the most numerous group of respondents (69 respondents or 46.0% of the total sample) had the age ranging from 21 to 23 years. Furthermore, 42 respondents (28.0% of the sample size) were aged from 18 to 20 years. Also, 28 respondents (18.7%) were aged from 24 to 26 years, whereas 11 respondents (7.3%) had the age of 26+ years old. The distribution of respondents' age suggests that the main part of the respondents was young adults studying at the university. As for the program of study, 96 respondents (64.0%) were studying undergraduate programs, and 54 respondents (36.0%) – postgraduate programs. The high percentage of respondents who studied undergraduate

program could be explained by the larger size of the student population at this level. Concerning the respondents' residential area, 85 respondents (56.7%) came from urban areas, while 65 respondents (43.3%) were from rural areas. Equal representation of urban and rural students increases the variety of the study sample and allows for getting better results concerning academic stress and mental health among college students in higher education. Overall, the respondents represented different backgrounds as to gender, age, level of education, and place of residence.

4.2 Assessment of Academic Stress among College Students

Academic stress is one of the most important elements that affect academic achievement and mental health of students in higher education. In order to evaluate the level of academic stress among college students, the level of agreement of respondents with six statements about academic stress on a five-point Likert scale was assessed. Mean score and standard deviation were used for data analysis, with higher mean scores reflecting greater academic stress.

TABLE 2: LEVEL OF ACADEMIC STRESS

Statement	Mean	SD	Rank
Examination pressure increases my stress.	4.36	0.74	1
Academic workload is difficult to manage.	4.18	0.81	2
Assignment deadlines create stress.	4.05	0.83	3
Career uncertainty increases my stress.	3.98	0.88	4
Competition with classmates creates pressure.	3.82	0.91	5
Difficulty balancing academics and personal life.	3.79	0.94	6
Overall Mean	4.03	0.85	

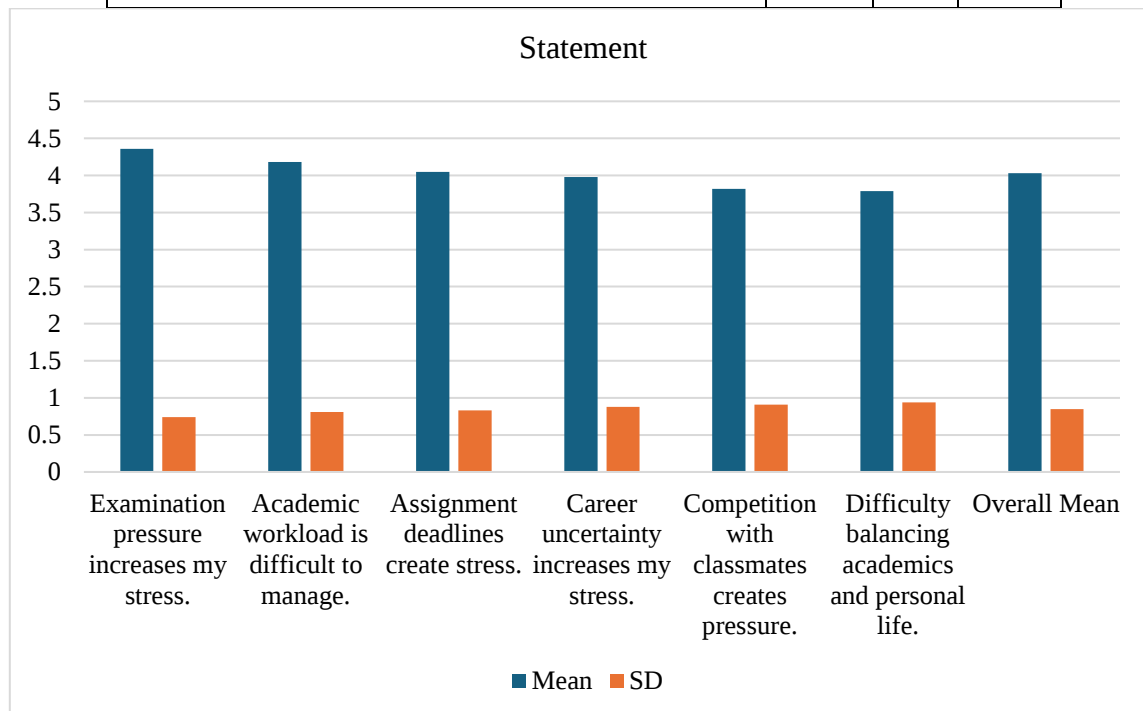


FIGURE 2: GRAPHICAL REPRESENTATION OF LEVEL OF ACADEMIC STRESS

Table 2 below shows the level of academic stress experienced by the respondents. It was found out that the total mean score of the respondents was 4.03 (SD = 0.85), showing that the respondents experienced high levels of academic stress. From various sources of stress, the factor "Examination pressure increases my stress" had the highest mean score (Mean = 4.36, SD = 0.74) and was rated first, meaning that examination pressure was the highest source of academic stress among the college students. This was followed by the factor "Academic workload is difficult to manage" with mean score of 4.18 (SD = 0.81), meaning that large amount of academic work played a great role in causing students to have stress. Similarly, "Assignment deadlines add to my stress" was another major stressor with mean score of 4.05 (SD = 0.83). Career uncertainties also played a major part in causing the students to be stressed since they obtained a mean score of 3.98 (SD = 0.88), showing that issues concerning the future job and career plans were one of the main factors causing students to become anxious. In addition, competition with other classmates also caused some level of stress since the mean score was 3.82 (SD = 0.91). The least mean score was the factor "Difficulty balancing academics and personal life" with mean score of 3.79 (SD = 0.94). However, this score showed that many respondents had difficulties balancing their personal and academic lives. In summary, from the findings above, it is evident that the college students experienced stress with examination pressure, academic workload and assignment deadlines being the main stressors. Therefore, there is need for higher education institutions to implement stress management programs.

4.3 Assessment of Mental Health among College Students

Mental wellbeing is a key part of the wellbeing of students, and it largely influences how they perform academically and emotionally as well as their ability to cope with academic stress. In order to measure the state of mental wellbeing among college students, the respondents were required to state their level of agreement to five statements regarding anxiety, concentration, exhaustion, sleeping difficulties, and emotions on a scale of one to five. Mean and standard deviation were used to measure the results, and high mean values represent greater psychological distress.

TABLE 3: MENTAL HEALTH STATUS OF RESPONDENTS

Statement	Mean	SD	Rank
I frequently feel anxious due to academics.	4.14	0.79	1
I experience difficulty concentrating.	3.96	0.86	2
I feel emotionally exhausted.	3.88	0.91	3
I experience sleep disturbances.	3.81	0.94	4
I am able to maintain emotional balance.	3.29	0.97	5
Overall Mean	3.82	0.89	

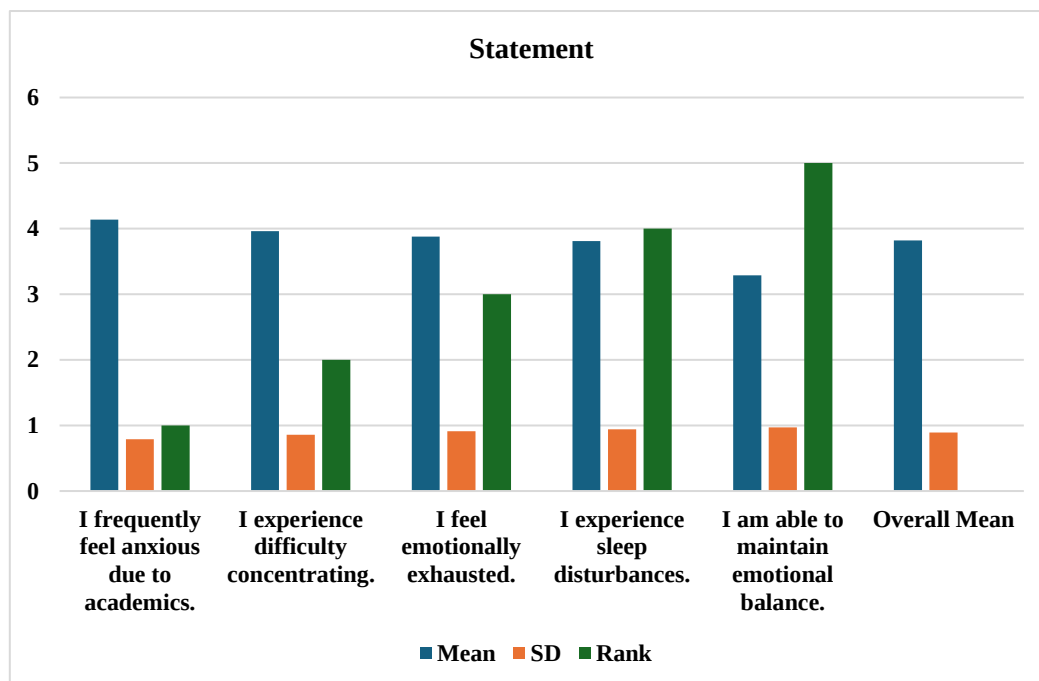


FIGURE 3: GRAPHICAL REPRESENTATION OF MENTAL HEALTH STATUS OF RESPONDENTS

The mental health status of the respondents according to certain psychological well-being indicators is provided in Table 3. The analysis revealed that the overall mean score was 3.82 (SD = 0.89), which implies that the respondents faced moderate to high mental health problems connected with academic life.

According to the data obtained from the survey, "I frequently feel anxious due to academics" (Mean = 4.14, SD = 0.79) got the highest mean score, occupying the first place in the list. It is clear that the problem of academic anxiety is the most widespread one for the respondents. In their turn, such factors as exam pressure, academic tasks, expectations, and future careers may be the causes of anxiety. At the same time, "I experience difficulty concentrating" (Mean = 3.96, SD = 0.86) received the second highest mean score, which means that numerous students faced the problem of inability to concentrate while managing academic tasks. Also, "I feel emotionally exhausted" had a mean score of 3.88 (SD = 0.91), implying that prolonged academic pressures caused students to suffer from emotional tiredness and psychological stress. Sleep disturbance is another issue often reported by the respondents with a mean score of 3.81 (SD = 0.94), meaning that the process of learning has a negative impact on students' sleep patterns and physical health. However, the lowest mean score (Mean = 3.29, SD = 0.97) was received by the statement "I am able to maintain emotional balance." Although lower compared to the other statements, the result implies that numerous students were unable to maintain emotional balance while coping with academic pressures. Thus, academic anxiety, difficulty concentrating, emotional exhaustion, and sleep disturbances can be considered the main mental health challenges faced by college students.

4.4 Relationship between Academic Stress and Mental Health

TABLE 4: PEARSON CORRELATION ANALYSIS

Variables	Correlation (r)	p-value	Interpretation
Academic Stress and Mental Health	-0.694	<0.001	Significant Negative Relationship

There is a statistically significant negative relationship between academic stress and mental health ($r = -0.694$, $p < 0.001$). More academic stress was related to worse mental health in college students.

4.5 Influence of Academic Stress on Mental Health

TABLE 5: MULTIPLE LINEAR REGRESSION ANALYSIS

Predictor	β	t-value	p-value
Academic Stress	-0.623	-10.74	<0.001

Model Summary

R	R ²	Adjusted R ²	F	p-value
0.712	0.507	0.497	49.88	<0.001

Regression analysis revealed that 50.7% of variance in mental health can be explained. The study revealed that academic stress was a significant determinant of mental health because higher academic stress negatively influenced mental health.

4.6 Summary of Hypothesis Testing

TABLE 6: SUMMARY OF HYPOTHESIS TESTING

Hypothesis	Statistical Test	p-value	Decision
H1: Academic stress significantly affects mental health.	Pearson Correlation	<0.001	Accepted
H2: Academic stress significantly predicts mental health.	Multiple Regression	<0.001	Accepted
H3: College students experience significant academic stress.	Descriptive Statistics	Supported	Accepted

All of the hypotheses postulated were proved via statistical analysis. The results showed that there was a lot of stress among the college students, and it greatly influenced their psychological well-being. Thus, there is a strong necessity to develop adequate mechanisms for managing stress and psychological state in colleges.

5. DISCUSSION

The current research sought to investigate the connection between academic stress and mental health of college students enrolled in higher education. It was found out that the participants faced a high degree of academic stress, with examination stress, academic workload and assignment deadlines being the main sources of the stress. The academic pressures caused much psychological stress for the students and impacted their well-being.

It was found out that the respondents faced moderate to high challenges to their mental health in terms of academic stress-related anxiety, concentration problems, emotional exhaustion, and insomnia (Wang & Joo, 2025). The correlation and regression analysis indicated a strong negative relationship between academic stress and mental health, which means that the high academic stress levels impacted the psychological well-being negatively.

These results support the findings obtained in the previous studies. Thus, Chandra (2021) found an increase of academic stress levels among college students and that emotional intelligence made coping with stress easier. In turn, Clabaugh et al. (2021), and Son et al. (2020) pointed to the link between academic pressures, anxiety, emotional distress, and poor psychological well-being. As for Cage et al. (2021), they mentioned the role of academic workload and academic assessment stress in impacting the well-being of students at universities.

All in all, it may be said that academic stress determines students' mental health. Therefore, it is necessary for higher education institutions to provide counselling services and stress management programmers.

6. CONCLUSION AND RECOMMENDATIONS

The present study concluded that academic stress is a significant challenge faced by college students in higher education and has a substantial influence on their mental health. The findings revealed that students experienced high levels of academic stress, primarily due to examination pressure, academic workload, assignment deadlines, and career uncertainty. The study also found that many students experienced mental health challenges, including anxiety, emotional exhaustion, difficulty concentrating, and sleep disturbances. Furthermore, the statistical analysis confirmed a significant negative relationship between academic stress and mental health, indicating that increasing academic stress adversely affects students' psychological well-being. The study highlights the need for higher education institutions to adopt comprehensive measures that promote mental health, reduce academic stress, and create a supportive learning environment that enhances both students' academic performance and overall well-being.

- **Strengthen Counseling and Mental Health Services:** Higher education institutions should establish accessible counseling centers, psychological support services, and regular mental health awareness programmes to help students effectively manage academic stress.
- **Promote Academic Stress Management:** Colleges should organize stress management workshops, time management training, mindfulness sessions, and career guidance programmes to equip students with effective coping strategies for academic challenges.
- **Develop a Supportive Learning Environment:** Educational institutions should encourage balanced academic workloads, flexible learning practices, faculty mentoring, and student support initiatives to reduce unnecessary academic pressure and promote students' overall psychological well-being.

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