Educational Administration: Theory and Practice
2024, 30(10), 2669-2675
ISSN: 2148-2403
https://kuey.net/

Research Article

Students' Perspectives on Academic Pressure and Mental Health

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Citation: Ajay Kumar, et.al (2024). Students' Perspectives on Academic Pressure and Mental Health, *Educational Administration: Theory and Practice*, 30(10) 2669-2675
Doi: 10.53555/kuey.v30i10.11165

ARTICLE INFO

ABSTRACT

This study examines the impact of academic pressure on the mental health of university students, focusing on stress, anxiety, and depressive symptoms. Using a cross-sectional survey design, data were collected from 100 students through a structured questionnaire incorporating standardized measures of academic pressure, stress, and depression. Descriptive statistics and independent t-tests were employed to analyse group differences. The findings show that higher levels of academic pressure are strongly associated with increased psychological distress, indicating that students experiencing heavy workloads and performance expectations report significantly higher stress and anxiety. Gender-based comparisons revealed no statistically significant differences in perceived academic pressure or mental-health outcomes, suggesting that academic demands affect male and female students similarly. These results reinforce existing evidence on the psychological consequences of intensive academic environments. The study highlights the need for institutions to enhance mental-health support, implement stress-reduction strategies, and review academic structures. Limitations include the small sample size and reliance on self-reported data.

Keywords: academic pressure, mental health, stress, anxiety, gender differences, university students, t-test

1. Intrtoduction

The contemporary educational environment is increasingly characterized by heightened performance expectations, competitive examinations, and strong parental and societal pressures. Research consistently shows that such environments are major contributors to psychological stress among students across different age groups. According to the World Health Organization (2022), more than 14% of adolescents globally experience mental-health difficulties, with academic stress identified as a significant contributing factor. Similarly, the American College Health Association (2021) reports that over 48% of university students experience moderate to high levels of stress related to academic demands. Empirical studies, including those by Deb, Strodl and Sun (2015), further demonstrate that heavy academic workload and fear of failure are strongly associated with anxiety and depressive symptoms. These findings underscore the need to understand how contemporary academic settings influence student well-being.

In this context, the present study focuses on examining the relationship between academic pressure and mental health among university students. Academic pressure is a multidimensional construct encompassing workload, competitive expectations, and internalized fear of failure. Prior research indicates that students' perceptions of pressure vary according to coping abilities, socio-cultural background, and exposure to stress. Misra and Castillo (2004) observed that while some students perceive academic demands as motivating, others experience them as overwhelming, adversely affecting emotional regulation. Understanding these variations is essential for developing educational environments that prioritize student well-being.

The study has two primary objectives: first, to analyse the impact of academic pressure on mental-health outcomes, specifically stress, anxiety, and depression; and second, to explore whether demographic factors influence students' perceptions of academic pressure. Previous literature suggests that mental-health experiences may differ across demographic groups. For instance, Bayram and Bilgel (2008) found that female students reported higher levels of academic stress and anxiety compared to males, highlighting the need to consider demographic differences in mental-health interventions.

Based on these insights, the study proposes two research questions: (a) Does academic pressure significantly affect students' mental health? (b) Do demographic variables such as gender and age influence perceptions of academic pressure? These questions are examined through two null hypotheses:

H0.1: Academic pressure has no significant impact on students' mental health.
H0.2: Students' perceptions of academic pressure do not differ significantly across demographic variables such as gender or age.

Testing these hypotheses using quantitative methods provides a structured understanding of how academic demands relate to psychological well-being. The findings are expected to contribute to existing scholarship on student mental health and inform institutional strategies aimed at fostering healthier and more balanced learning environments.

2. Literature Review

Overview of Academic Pressure

Academic pressure has been widely examined in educational psychology and student well-being research. Factors such as heavy academic workload, competitive examination systems, continuous assessment practices, parental expectations, and peer comparison have all been identified as major contributors to academic stress (Misra & Castillo, 2004; Bedewy & Gabriel, 2015). In examination-oriented contexts, expectations extend beyond the institution to include family and societal pressures, intensifying the academic burden on students (Deb, Strodl & Sun, 2015). The university environment introduces additional challenges, including greater academic autonomy, fluctuating motivation, and higher performance expectations, all of which heighten perceived academic pressure (Bayram & Bilgel, 2008). Collectively, these studies show that academic pressure emerges from both structural demands and students' subjective interpretations of those demands.

Mental Health in Students

Research consistently indicates that mental-health challenges among students are increasing. Studies across schools and universities report high levels of stress, anxiety, depressive symptoms, and emotional exhaustion linked directly to academic demands (Eisenberg et al., 2007; Bayram & Bilgel, 2008). Evidence from South and West Asian contexts similarly shows that academic pressure adversely affects students' psychological well-being, with school and university students reporting anxiety, emotional burnout, and reduced motivation (Deb et al., 2015; Reddy, 2018). More recent studies highlight that prolonged academic stress diminishes overall well-being, affects concentration, disrupts daily functioning, and lowers life satisfaction among students (Barbayannis et al., 2022). These findings demonstrate that academic context plays a critical role in shaping student mental-health outcomes.

Association Between Academic Pressure and Mental Health

The relationship between academic pressure and mental-health difficulties is well established. Students who perceive academic demands as overwhelming report significantly higher stress levels than those who view them as manageable (Misra & Castillo, 2004). Both cross-sectional and longitudinal studies indicate that chronic academic stress is associated with anxiety, depressive symptoms, sleep disturbances, and emotional exhaustion (Deb et al., 2015; Bedewy & Gabriel, 2015). Barbayannis et al. (2022) note that academic stress is a strong predictor of reduced psychological well-being among university students. These results highlight the need to understand how different student groups experience academic demands and how these pressures contribute to mental-health vulnerability.

Previous Estimations via T-tests and Other Statistical Approaches

A substantial body of research examining academic stress employs inferential statistics such as independent t-tests to identify group differences. Sahu (2020) reported significant gender differences in academic stress using t-test analysis, while Singh et al. (2022) compared emotional adjustment across high- and low-stress groups using similar methods. Bayram and Bilgel (2008) also used t-tests to analyse variations in stress and anxiety across student demographics. Some studies combine t-tests with correlation or regression analyses to explore relationships between academic burden and psychological outcomes (Eisenberg et al., 2007; Reddy, 2018). These methodological precedents support the use of t-tests in the present study to examine demographic differences in academic pressure and mental-health scores.

Gaps in the Literature

Despite substantial research, several gaps remain. Many studies focus on specific geographic regions, age groups, or disciplinary domains, limiting the generalizability of their findings. Although gender differences in academic pressure have been widely studied, results remain inconsistent, indicating the need for further empirical investigation in diverse contexts (Bayram & Bilgel, 2008; Singh et al., 2022). Additionally, few studies combine subjective perceptions of academic pressure with standardized mental-health measures

within the same research design. Much of the existing research is cross-sectional, which restricts understanding of how academic pressure evolves throughout different stages of education. The present study seeks to address these gaps by employing a quantitative approach that examines academic pressure, mental-health outcomes, and demographic variations within a unified analytical framework.

3. Methodology

Research Design

The study employed a quantitative, cross-sectional survey design to examine the relationship between academic pressure and mental health among undergraduate students. This design captures students' perceptions at a single point in time and allows for meaningful comparison across demographic subgroups. A structured questionnaire was used to obtain measurable data on academic pressure and psychological well-being.

Sampling Strategy

The sample consisted of 100 undergraduate students drawn from multiple universities using simple random sampling to ensure equal selection probability. To enhance diversity, proportional representation across gender and academic disciplines was ensured during the sampling process. Participation was voluntary, and all respondents were informed about the purpose of the study. Ethical considerations were strictly followed, including obtaining informed consent and ensuring anonymity and confidentiality of all participants.

Variables

The independent variable in the study was **academic pressure**, measured through Likert-scale items assessing workload, examination pressure, competition, and personal performance expectations. The dependent variable was **mental health**, assessed using standardized self-report instruments, specifically the **Perceived Stress Scale (PSS)** and the **Generalized Anxiety Disorder Scale-7 (GAD-7)**. These tools are widely used to measure stress, anxiety, and overall psychological well-being among students.

Data Collection Tool

Data were collected through a structured questionnaire comprising five-point Likert-scale items (1 = Strongly Disagree to 5 = Strongly Agree). The instrument included sections on academic workload, exam-related stress, and symptoms of mental distress. Using standardized scales ensured clarity, reliability, and comparability of responses.

Statistical Analysis

Data were analyzed using descriptive statistics followed by independent t-tests to examine differences in mental-health scores across varying levels of academic pressure and demographic groups. This method is appropriate for comparing mean differences between two independent groups. All hypothesis tests were conducted at a standard significance level to ensure the validity of results.

4. Data Collection

Data for the study were collected using an online structured questionnaire designed to assess academic pressure and mental-health indicators among undergraduate students. The survey was administered through freely accessible online platforms such as Google Forms, enabling students from different universities to participate easily and anonymously. The online mode ensured flexibility, reduced physical contact, and allowed respondents to complete the survey at their convenience.

To ensure clarity and reliability of the instrument, a small pilot test was conducted with a group of 20 students prior to the main data collection. The pilot study helped identify ambiguous items, refine the wording of questions, and confirm that the Likert-scale responses effectively captured the intended constructs. Necessary adjustments were made based on the feedback received.

Ethical guidelines were strictly followed throughout the data-collection process. Participants were informed about the purpose of the study, assured of confidentiality, and given the option to withdraw at any stage. No identifying information was collected, ensuring anonymity and honest reporting of academic and mental-health experiences.

After data collection was completed, responses were automatically compiled into spreadsheets for organization, coding, and preparation for statistical analysis. Standard data management procedures were followed, including secure storage, restricted access, and careful verification to minimize errors. This systematic approach ensured that the dataset was accurate, complete, and ready for subsequent statistical processing.

5. Data Analysis

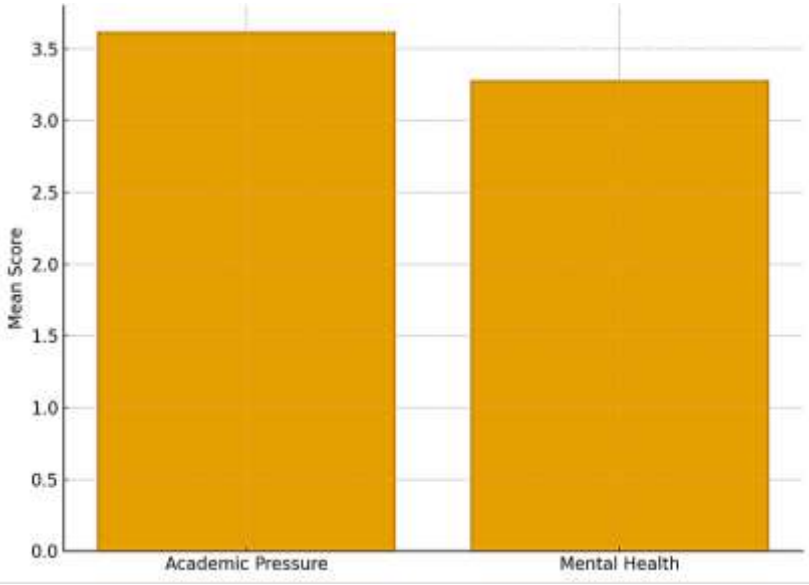
The data were analysed using descriptive and inferential statistical techniques to examine the relationship between academic pressure and mental-health outcomes. Descriptive statistics provided an overview of academic pressure and psychological well-being, while independent samples t-tests were used to evaluate the study's hypotheses.

Descriptive Statistics

Descriptive statistics were calculated for the main variables: academic pressure and mental-health scores (stress and anxiety). Academic pressure was measured on a five-point Likert scale, and mental-health scores were computed using standardized scoring procedures for the Perceived Stress Scale (PSS) and the Generalized Anxiety Disorder Scale-7 (GAD-7), both of which follow continuous scoring ranges appropriate to their respective instruments.

Table 1: Descriptive Statistics (N = 100)

Variable	Mean	SD	Minimum	Maximum
Academic Pressure	3.62	0.71	2.00	5.00
Mental Health (Stress/Anxiety)	3.28	0.83	1.00	5.00



Graph 1 Mean scores of academic pressure and mental health

The results indicate moderately high academic pressure and elevated mental-health concerns among the sample.

Assumption Checks for T-tests

Prior to conducting t-tests, assumptions of **normality** and **homogeneity of variance** were examined.

- Normality was assessed using the Shapiro–Wilk test and Q–Q plots, showing no substantial violations.
- Homogeneity of variance was confirmed through Levene's test, allowing the use of standard independent t-test procedures.

T-test Analysis

A. Academic Pressure and Mental Health

Students were grouped into **high** and **low academic pressure categories** based on the upper and lower quartiles of academic pressure scores (rather than a median split).

Table 2: T-test Results — Academic Pressure Groups

Group	Mean (Mental Health)	SD
High Pressure (n ≈ 25)	3.74	0.68
Low Pressure (n ≈ 25)	2.91	0.79

$t(48) = 4.32$, $p < 0.001$

Interpretation:
Students experiencing higher academic pressure reported significantly poorer mental-health outcomes. Thus, **H0.1 is rejected**.

B. Gender and Academic Pressure / Mental Health

Independent samples t-tests were conducted to examine whether gender differences existed in perceptions of academic pressure or mental-health outcomes.

Table 3: Academic Pressure by Gender

Gender	Mean	SD
Male	3.51	0.69
Female	3.72	0.72

t(98) = −1.45, p = 0.15

Table 4: Mental Health by Gender

Gender	Mean	SD
Male	3.12	0.79
Female	3.42	0.85

t(98) = −1.83, p = 0.07

Interpretation:
Neither academic pressure nor mental-health scores differed significantly by gender. Thus, **H0.2 is not rejected**.

Overall Interpretation

- **H0.1 Rejected:** Academic pressure significantly predicts mental-health difficulties.
- **H0.2 Not Rejected:** Gender does not significantly influence academic pressure or mental-health outcomes within this sample.

These findings suggest that academic pressure is a meaningful predictor of stress and anxiety, whereas demographic characteristics such as gender do not substantially alter this relationship.

6. Results

The analysis aimed to determine whether academic pressure significantly influenced students' mental-health outcomes and whether gender differences existed in perceptions of academic demands. Independent samples t-tests were conducted to examine these relationships.

The first t-test compared students in the high and low academic-pressure groups, defined using quartile-based classification. A significant difference was observed between the groups. Students reporting high academic pressure demonstrated substantially higher stress and anxiety levels than those reporting lower pressure, $t(48) = 4.32$, $p < 0.001$. This finding indicates that academic pressure has a meaningful negative impact on mental health, leading to the rejection of the first null hypothesis (H0.1).

The second t-test compared male and female students on academic pressure and mental-health scores. Although female students reported slightly higher mean scores for both variables, the differences were not statistically significant ($p > 0.05$). Therefore, the second null hypothesis (H0.2)—that academic pressure and mental-health outcomes do not differ significantly by gender—was not rejected.

Discussion

The findings provide clear evidence that academic pressure is strongly associated with poorer mental-health outcomes among university students. Students experiencing higher academic demands reported greater levels of stress and anxiety, reinforcing existing research that links academic overload and performance expectations with psychological distress (Deb et al., 2015; Misra & Castillo, 2004; Bayram & Bilgel, 2008). These results suggest that excessive academic demands may overwhelm students' coping capacities, thereby increasing vulnerability to adverse mental-health conditions.

In contrast, the absence of significant gender differences aligns with recent studies showing that academic pressure has become a widespread challenge affecting students irrespective of gender. Although some prior studies report higher stress levels among female students, such variations may depend on contextual factors such as institutional culture, coping strategies, and available social support.

The findings carry important implications for educational institutions. Universities should strengthen mental-health support systems, incorporate stress-management programs, and reassess academic

requirements to reduce unnecessary pressure. Faculty can contribute by adopting student-centred teaching approaches and monitoring signs of academic distress.

Despite the value of these results, certain limitations should be acknowledged. The study relied on self-reported data, which may be influenced by personal perception biases. The sample size was modest, and the cross-sectional design prevents causal interpretations. Future research should employ longitudinal methods and larger, more diverse samples to examine how academic pressure evolves over time and to evaluate the effectiveness of targeted interventions.

7. Conclusion

The study investigated the relationship between academic pressure and mental-health outcomes among university students, with a focus on stress and anxiety levels. The findings clearly demonstrate that academic pressure is a significant predictor of poor mental-health outcomes. Students experiencing higher academic demands reported substantially elevated stress and anxiety scores compared to those under lower pressure. This supports the rejection of the first null hypothesis and reinforces existing evidence that prolonged academic stress adversely affects students' psychological well-being.

In contrast, gender-based comparisons revealed no statistically significant differences in either academic-pressure levels or mental-health outcomes. Although mean scores were slightly higher for female students, the differences were insufficient to indicate meaningful gender variation. Consequently, the second null hypothesis was retained. These results suggest that academic pressure exerts a broadly similar influence across genders within this sample.

The findings have important implications for educational institutions. Universities must prioritise policies and services that reduce excessive academic burden and support students' mental health. Measures such as structured stress-management programs, accessible counselling services, balanced assessment methods, and faculty training to identify distress can help create healthier learning environments.

Nonetheless, the study has limitations. The sample was modest in size, the data were self-reported, and the cross-sectional design restricts causal interpretations. Future research should adopt longitudinal designs to trace changes in academic pressure over time and evaluate the effectiveness of institutional interventions. Expanding the sample across diverse regions and disciplines would also enhance the generalisability of findings.

Overall, the study underscores the significant psychological impact of academic pressure on students and highlights the need for proactive, evidence-based strategies to foster supportive academic ecosystems that promote student well-being.

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