

THE RELATIONSHIP BETWEEN ACADEMIC STRESS AND ACADEMIC PERFORMANCE AMONG UNISEL STUDENTS**MUHAMMAD FARIS MIRZA BIN MOHAMAD ASRI**Universiti Selangor
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muneerah@unisel.edu.my**Abstract**

Academic pressure refers to the various challenges faced by students at different levels of education that arise from the demanding nature of academia. These challenges include the pressure to meet high standards, achieve academic success and manage a heavy workload. The lack of research on the relationship between academic stress and its impact on academic performance presents a complex issue. Therefore, this study aims to investigate the relationship between academic pressure and academic performance. A quantitative research design was used in which 100 undergraduate students participated. Convenience sampling was used to select the respondents. Data were collected using self-administered questionnaires consisting of 18 items adapted from the Perceived Stress Scale (PSS) and the Academic Performance Scale (APS). The statistical software SPSS was used to analyse the data. The results showed no significant relationship between academic stress and academic performance in university students. This study provides valuable insights for future researchers and stakeholders and helps to improve the understanding of stress-related issues that specifically affect university students.

Keywords: *Academic Stress, Academic Performance, University Student, Malaysia.*

INTRODUCTION

Academic pressure encompasses the various challenges faced by students at different levels of education. It arises from the demanding nature of academic education, including the pressure to perform strongly academically, fulfil high expectations and manage a heavy workload. Furthermore, this stress is exacerbated by factors such as prolonged studying, the tedious writing of papers, the anxiety of preparing for exams and the tension created by monotonous lectures (Javaid, 2023). Furthermore, academic stress has a negative impact on students' psychological well-being, contributing to feelings of anxiety and depression while impairing their ability to concentrate and succeed academically (Córdova Olivera et al., 2023).

Physiological symptoms of stress such as headaches, fatigue and insomnia further exacerbate the challenges students face. Research shows that academic stress is associated with decreased motivation, increased class absenteeism, and poorer academic performance, underscoring its detrimental effects on students' educational outcomes (Zhang et al., 2024). In addition, the social and environmental pressures that students face, including expectations to excel academically, fulfil parental demands and secure future opportunities, contribute significantly to the overall burden of academic stress (Zavaleta et al., 2021). Therefore, managing academic stress is critical to creating a supportive learning environment and promoting better student well-being.

Academic performance is a key indicator of student achievement in a structured learning environment (Kumar et al., 2021). It is a comprehensive assessment of students' performance in both curricular and extracurricular activities that serves as a critical measure of their academic success. Assessing academic performance requires navigating a complex landscape shaped by various internal and external factors, including social, emotional, and cognitive dimensions, as well as the demands of academic expectations. Research highlights the multifaceted nature of academic performance and emphasises its susceptibility to a range of influences, such as perceived stress levels and coping mechanisms (Deng et al., 2022).

The lack of comprehensive research on academic stress and its impact on academic performance has serious and complex implications. Moreover, there is limited discussion on how academic stress affects different aspects of academic performance, leading to less effective solutions (Lavoie-Tremblay et al., 2021; Reddy et al., 2018). The lack of prospective studies results in insufficient data for educators and policy makers, which hinders the development of targeted interventions and support systems to mitigate stress and improve student performance (Islam & Rabbi, 2024). In order to improve overall educational outcomes and create more effective support systems, this research gap must be addressed.

The purpose of this study is to investigate the impact of academic stress on students' academic performance by examining the challenges they face and the coping strategies they use. It also aims to investigate how different levels of academic stress affect students' psychological well-being, social interactions and overall academic performance. The focus is on undergraduate students from different faculties at UNISEL to capture a broad range of experiences. The findings will help to develop more effective academic support programmes and mental health interventions tailored to students' needs. The research questions and objectives of this study are as follows:

Research Objective: To investigate the relationship between academic stress and academic performance among UNISEL students.

Research Question: What is the relationship between academic stress and academic

performance among UNISEL students?

LITERATURE REVIEW

Previous studies have shown that academic stressors such as workload, ambiguity and pressure to perform have a significant impact on students' academic performance (Beanlands et al., 2019; Ching et al., 2020). Academic performance and future opportunities are strongly correlated; more exceptional performance can lead to better critical thinking skills, self-confidence and job opportunities. However, high levels of academic stress have been linked to lower grades, higher dropout rates and impaired mental health (Barbayannis et al., 2022). The complexity of academic success goes beyond test scores; it also encompasses students' social, emotional, physical and familial experiences, all of which influence their educational trajectory. Promoting student achievement in the education system therefore requires an awareness of the multitude of factors that influence academic performance and a commitment to addressing them.

Much research highlights the remarkable impact of stress on students' academic performance. There is a correlation between students' ability to cope with the demands of academic life and increased stress levels fuelled by the pressure to perform well in examinations and the need for effective time management (Barbayannis et al., 2022). According to Akhter and Iqbal (2021), university pressure plays a crucial role in determining the factors that influence students' academic progress. Furthermore, the complex relationship between academic stress and academic performance sheds light on how various stressors, including anxiety, financial worries, and family problems, significantly affect students' academic outcomes in education (Siti Fatimah Abdullah et al., 2020). Therefore, the research hypothesis of this study is as follows:

RH1: There is a relationship between academic stress and academic performance among university students.



Figure 1: Conceptual Model of the relationship between academic stress and academic performance.

METHODOLOGY

Research Design

The research design of this study is a quantitative research design that examines the relationship between academic stress and student performance. Using this method, the degree and direction of the relationship between the independent variable (academic stress) and the dependent variable (academic performance) can be statistically determined. This research approach enables statistical techniques for data interpretation and objective measurement that provide robust and generalisable insights into how differences in academic stress correspond to changes in academic performance (Barbayannis et al., 2022). A correlational study is suitable for assessing the potential impact of academic stress on students' academic performance and providing insight into this relationship (Siti Fatimah Abdullah et al., 2020). Therefore, this method helps researchers to find trends and links between academic stress and academic

performance and to get a comprehensive picture of the relationship between these two factors.

Sampling

The study uses a convenience sampling to select participants. This method selects students who are readily available and willing to participate in the study, making it a practical choice for data collection in the study. As noted by Golzar et al. (2022), convenience sampling was used in this project to ensure that participants met the established requirements of active participation and desire to complete the survey while efficiently collecting data. The selection of participants for convenience sampling means that the most accessible or available participants are selected. Although this does not always achieve a fully representative sample of the total population, this strategy is often used when time or resources are limited.

Instruments

This questionnaire consists of three sections to obtain responses from respondents. Section 1 is dedicated to collecting demographic data, including but not limited to age, gender, year of study, and degree programme. Section 2 then consists of items that measure academic stress. The Perceived Stress Scale (PSS), a validated instrument for measuring students' stress levels, is used in Section 2 to assess academic stress levels. In Section 3, academic performance was then measured using the Academic Performance Scale (APS). This academic performance scale was developed by Carson Birchmeier (Saginaw Valley State University), Emily Grattan (Saginaw Valley State University), Sarah Hornbacher (Saginaw Valley State University), and Christopher McGregory (Saginaw Valley State University). Finally, a 5-Likert scale was used in this questionnaire, ranging from 1 (strongly agree) to 5 (strongly disagree).

Table 1 Total items of this questionnaire.

Construct	Number of item	Sources
Academic stress	10	Tus (2020)
Academic performance	8	Saginaw Valley State University

Data analysis

The data was analysed using statistical tools such as SPSS after the data had been collected. The frequency and percentage of demographic information is summarised using descriptive statistics. Inferential statistics are used to test hypotheses and draw conclusions about the population based on the sample data. A correlation analysis was conducted to examine the relationship between academic stress and academic performance. This analysis was used to find a possible relationship between these two variables that can be appropriately interpreted based on the results of the study (Zavaleta et al., 2021).

RESULT

Table 2 shows the demographic data of the 100 respondents. In terms of age, the age of 18-20 years is higher at 56.4 percent (57) than the age of 21-23 years at 33.7 per cent (34) and 24-26 years at 8.9 percent (9). For Malay, Chinese and Indian ethnicity, stress related to academic performance is 80.2 per cent (81) for Malays, 7.9 per cent (8) for Chinese and 10.9 per cent

(11) for Indians. Gender, female 68.3 per cent (69) is higher than male 30.7 per cent (31). Finally, the faculty most involved in this study is the Faculty of Education and Social Sciences (FESS) with 50.5 per cent (51) because it is higher than the Faculty of Communication, Visual Arts and Computing (CVAC) with 24.8 per cent (25), the Faculty of Engineering and Life Sciences (FELS) with 2.0 per cent (2), the Faculty of Business Administration and Accounting (FBA) with 3.0 per cent (3), the Faculty of Health Sciences with 10.9 per cent (11) and the Faculty of Others with 7.9 per cent (8).

Table 2: Demographic information of respondent

Categories	Type	Frequency	Percentage (%)
Age	18-20	57	56.4
	21-23	34	33.7
	24-26	9	8.9
Race	Malay	81	80.2
	Chinese	8	7.9
	Indian	11	10.9
Gender	Female	69	68.3
	Male	31	30.7
Faculty	Faculty of Education and Social Science (FESS)	51	50.5
	Faculty of Communication, Visual Arts & Computing (CVAC)	25	24.8
	Faculty of Engineering & Life Sciences (FELS)	2	2.0
	Faculty of Business & Accountancy (FBA)	3	3.0
	Faculty of Health Sciences	11	10.9
	OTHER	8	7.9

The Pearson correlation coefficient was used to measure the significant relationship between academic stress and academic performance among university students. Table 3 shows that this finding is not significant as the p-value 0.907 is above the cut-off value of 0.05. Therefore, it can be concluded that there is no significant relationship between academic stress and academic performance among university students. This result therefore shows that academic stress is not related to academic performance.

Table 3: Correlation between academic stress and academic performance

		AS	AP

Academic stress (AS)	Pearson Correlation	1	-012
	Sig. (2-tailed)		.907
	N	100	100
Academic Performance	Pearson Correlation	-0.12	1
	Sig.	.907	
		100	100

DISCUSSION

The results of this study show an unexpected result, as the hypothesis is rejected. The results show that academic stress is not significantly related to the academic performance of university students. This contradicts the prevailing view that stress inevitably undermines academic success. While previous research has emphasised the detrimental effects of stress on students' academic achievements and mental health, this study suggests that the relationship may be more complex and influenced by different factors (Li et al., 2023).

Moderate levels of stress can improve students' concentration and performance. Some students have a greater natural ability to cope with stress than others. Individuals with stronger coping mechanisms or higher levels of optimism are better able to deal with academic pressure (Alkhalaf et al., 2023). Furthermore, each student responds to stress in a unique way. As Saleh et al. (2017) note, some students struggle and have difficulty concentrating, while others thrive under pressure and perform well despite high levels of stress.

Social support can also play a crucial role in managing stress while maintaining academic performance. A solid support network, including friends, family, or teachers, can help students manage their stress levels and provide emotional support and guidance (McLean et al., 2022). The non-significant relationship between academic stress and achievement also suggests that other variables may mediate or moderate this relationship. Students who have access to effective stress management strategies — such as time management skills, social support networks, and mental health resources — are better able to cope with academic pressure without decreasing their performance (Siti Fatimah Abdullah et al., 2020).

As students navigate the challenges of academic life, it is important to understand how to balance academic demands with effective stress management. Support networks, as Mofatteh (2021) emphasises, play an important role in this process. They provide both emotional and practical support to help students cope with the pressures of the academic environment. By comprehensively addressing these stressors, educational institutions can cultivate a supportive atmosphere that promotes better academic performance and overall student well-being (Mulaudzi, 2023).

Emotional intelligence (EI) refers to the ability to effectively perceive, understand, manage and regulate emotions. Students with higher EI tend to perform better academically (MacCann et al., 2019). Students with high EI are better able to cope with academic stress and show significantly lower levels of anxiety, allowing them to focus better on exams and assignments (MacCann et al., 2019). EI also facilitates positive relationships with peers and teachers, which promotes collaborative learning and contributes to better learning outcomes. In

addition, academic content, particularly in the humanities and social sciences, often requires students to understand and manage their own emotions — an area directly supported by EI. On the other hand, academic stress can have a negative impact on performance, leading to reduced concentration, motivation and general mental health, which in turn affects academic performance. High levels of stress can lead to absenteeism, reduced class attendance and even dropping out of school (Gobena, 2024).

In addition, the integration of new technologies such as ChatGPT has been shown to benefit students in several ways. According to Al Shloul et al. (2024), ChatGPT holds significant potential as a personalised teaching tool. It can act as a private tutor, tailoring lessons to the specific needs and interests of each student. Students who have difficulty understanding new concepts can interact with ChatGPT to ask questions and receive clarification. In addition, ChatGPT's translation features help language learners by providing translations in their preferred language, improving comprehension and fluency. For example, students who are struggling with new material can ask ChatGPT questions to gain clarity. In addition, the text translation features support language proficiency and comprehension in the student's chosen language (Al Shloul et al., 2024). Research on the role of ChatGPT in education emphasises its significant impact on teaching and learning. It proves valuable in activities such as debugging code and mastering complex academic topics for students, professionals and software developers alike (Al Shloul et al., 2024). ChatGPT offers teachers the opportunity to improve their teaching strategies by providing personalised feedback and guidance based on each student's needs (Al Shloul et al., 2024).

Furthermore, the increasing use of AI in scientific and academic writing represents a paradigm shift in educational support systems. A notable feature of ChatGPT is its adaptability; it helps students organise their essays, provides suggestions for improvement and stimulates creativity. This AI-driven guidance not only improves the quality of academic work, but also encourages deeper engagement with the subject, leading to more in-depth study and exploration (Al Shloul et al., 2024). This emphasises the extent to which students today use this tool to effectively manage academic stress.

LIMITATION AND RECOMMENDATION

One limitation of this study is the small sample size, which may limit the generalisability of the results. It is a common goal of researchers to ensure that their findings apply beyond the sample studied. However, when the sample size is small, it becomes more difficult to generalise the results to a larger population. Consequently, the results of studies with limited sample sizes may not be as reliable or generally applicable. In addition, a small sample may not represent the entire population from which it was drawn. This is because smaller samples are more susceptible to sampling variability, i.e. the characteristics of the sample may not reflect those of the wider population.

According to Deziel (2018), the sample size in statistical formulas is inversely related to the margin of error and directly proportional to the Z-score. Therefore, reducing the sample size decreases the confidence level of the study, which correlates with the Z-score, and increases the margin of error. To mitigate these issues, future researchers should consider using larger sample sizes, which can reduce the influence of outliers and improve the precision of the results.

A second recommendation is to adopt a mixed methods approach to data collection. By using both quantitative methods, such as surveys with questionnaires (Bhandari, 2020), and qualitative methods, such as interviews, researchers can gain a more comprehensive understanding of the object of study. In addition, observation techniques can be used to further enrich the research and gain deeper insights into the topic under investigation (Busetto et al., 2020). Combining data from different sources strengthens the validity of conclusions and

provides a more robust and nuanced understanding of the research question.

CONCLUSION

This study investigates the relationship between academic stress and academic performance. However, the results suggest that academic stress is not associated with academic performance, which contradicts the conclusions of previous studies. Nevertheless, universities should exercise caution when evaluating student performance. Although it is often assumed that academic stress and performance are linked, this study emphasises the importance of creating a supportive environment on campus that prioritises mental health and encourages constructive coping strategies.

By fostering a culture of awareness and proactive intervention, universities can help students to manage stress effectively, promoting not only academic performance but also their overall wellbeing throughout their studies. To address this multi-faceted problem and ensure that students have the necessary tools for academic and emotional success, further research and the application of evidence-based practices are crucial.

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