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FACTORS CONTRIBUTING TO STRESS AMONG PUBLIC UNIVERSITY STUDENTS IN MALAYSIA: AN EMPIRICAL STUDY

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ABSTRACT

This study assesses stress levels among students in Malaysian public universities and identifies key contributing factors. Motivated by increasing cases of stress-related issues, including severe mental health outcomes, an online questionnaire was distributed through WhatsApp and QR codes strategically placed at bus stops and dormitory cafeterias, gathering responses from 208 students. Results indicate that academic workload and financial difficulties significantly contribute to student stress, while factors such as the learning environment and personal issues, although impactful, have comparatively lower influence. The findings highlight the necessity for targeted institutional interventions aimed specifically at alleviating academic pressures and enhancing financial assistance programs. These insights are vital for university administrators, policymakers, and mental health practitioners aiming to foster a supportive academic environment, ultimately improving student well-being and academic performance.

Keywords: Stress, academic workload, financial challenges, mental health, public universities.

INTRODUCTION

The rising prevalence of stress among university students represents a significant global issue, widely acknowledged for its detrimental effects on academic performance, mental health, and overall well-being. Initially conceptualized by Selye (1974), stress refers to the body's non-specific response to external pressures, categorized into eustress, which enhances motivation, and distress, which negatively impacts health and productivity. Chronic, unmanaged distress is particularly concerning as it has been associated with cognitive impairment, emotional instability, and severe long-term health complications.

University students are especially susceptible to stress due to multiple concurrent challenges, notably heavy academic workloads, financial constraints, and personal difficulties. High academic expectations, including rigorous coursework and examination pressures, contribute to student stress (Taylor, 2022). Financial instability intensifies this issue, as many students grapple with the burdens of tuition fees and living expenses, particularly those dependent on educational loans (Aloia & McTigue, 2019). Additionally, environmental factors such as overcrowded classrooms, insufficient learning resources, and the transition to independent living have been recognized as critical stressors (Neigel et al., 2024). The cumulative effect of these stressors negatively affects cognitive performance, academic engagement, and emotional resilience.

Globally, empirical evidence consistently indicates high levels of psychological distress among university students. In the United States, research by the American College Health Association (ACHA, 2022) reported that over 40% of students experience significant stress, due to academic and financial pressures. Similarly, findings from the Mental Health Foundation (2020) in the United Kingdom revealed that 50% of university students suffer academic-related stress, with over 25% experiencing stress-induced sleep disorders.

In Malaysia, student stress is increasingly recognized as a critical issue. Berita Harian (2002) highlighted that between 25% and 35% of Malaysian university students experience substantial stress due to heightened academic demands. If not properly addressed, prolonged stress exposure can escalate into anxiety disorders, depression, and even increased suicide risk (Arthur, 1998; Fadhil, 2020). Alarmingly, student suicide rates increased by 13.1% in 2022, impacting over 4,300 students (Tuan Muhamad Adnan, 2023). Specific cases, such as the suicide of a UiTM Kedah student due to academic pressures and another student's fatal brain haemorrhages linked to assignment deadlines (Rahman, 2021; Utusan Malaysia, 2021), underscore the urgent need for comprehensive interventions.

Despite increasing awareness, existing research emphasizes academic and financial stressors, with insufficient exploration of the combined effects of academic workload, financial instability, personal challenges, and the learning environment on student mental health (Taylor, 2022; Viejo et al., 2018). The lack of holistic, integrative studies highlights a critical research gap. Addressing this gap is essential for formulating targeted interventions and effective policy recommendations that foster a supportive and sustainable academic environment in Malaysian universities.

Therefore, this study specifically investigates key stress factors affecting Malaysian public university students, namely academic workload, personal issues, financial challenges, and the learning environment. The objectives are to examine the relationship between academic workload and student stress levels; analyze the impact of personal issues on stress; investigate the influence of financial difficulties on stress levels; and evaluate how the learning environment contributes to students' stress experiences.

The outcomes of this research provide valuable insights for higher education institutions, policymakers, mental health professionals, and students. By clearly identifying primary stress factors, universities can strategically develop and implement effective support systems and stress management programs. Furthermore, raising awareness of stress triggers encourages students to adopt more effective coping strategies. This study contributes significantly to the literature on student mental health within Malaysia, offering a comprehensive basis for future research and fostering enhanced academic experiences and overall student well-being.

LITERATURE REVIEW

Stress is widely defined as a psychological and physiological reaction to external demands that exceed an individual's perceived ability to cope (Atkinson, 1988). The foundational concept of stress was introduced by Selye (1936), who described it as the body's non-specific response to any demand for change. Building on this, theorists such as Lazarus and Launier (1977) and Cooper and Marshall (1976) emphasized stress's impact on both mental and physical health, noting its potential to cause cognitive dysfunction, emotional instability, and reduced performance (Gold & Roth, 1993; Schafer, 1992).

Stress can manifest in two forms: eustress and distress. Eustress, or beneficial stress, serves as a motivating force that enhances focus and achievement (Hargrove et al., 2013). Conversely, distress refers to harmful stress that impairs mental well-being and can lead to anxiety, depression, and decreased academic performance (Aloia & McTigue, 2019; Neigel et al., 2024). Chronic exposure to distress without adequate coping mechanisms often results in significant functional and emotional impairments.

University students are particularly vulnerable to distress due to a convergence of academic, financial, and social pressures. The rigorous demands of higher education, such as frequent assignments, competitive examinations, and performance expectations, place students under substantial psychological strain (Taylor, 2022). Financial instability compounds these stressors, especially for students who are financially dependent on loans or part-time employment (Aloia & McTigue, 2019). Moreover, environmental factors—such as inadequate learning resources, overcrowded facilities, and the transition to independent living—add to students' overall stress burden (Neigel et al., 2024).

Research indicates that persistent stress among university students has profound implications. Studies have linked high stress levels with poor academic outcomes, reduced cognitive capacity, and diminished emotional resilience (Bowman, 2010). In addition, psychological distress has been shown to disproportionately affect students with limited financial means or weak social support networks (Shamsuddin et al., 2013; Taylor, 2022). These findings underscore the necessity of addressing multiple intersecting dimensions of student life when analysing stress.

The subsequent subsections explore the specific domains contributing to stress among university students: academic workload, personal issues, financial difficulties, and the learning environment.

Factors Contributing to Stress among University Students

A systematic review by Mud Shukri et al. (2023) found that Malaysian university students reported the highest levels of anxiety and stress among different demographic groups, particularly due to uncertainties related to academic progression and future employment opportunities. The COVID-19 pandemic has further amplified stress levels, with increased reliance on e-learning and social isolation contributing to higher rates of psychological distress (Mir et al., 2023).

Academic Workload

Academic workload has consistently been identified as a primary contributor to student stress. The pressure to meet assignment deadlines, perform well in examinations, and maintain high academic standards can result in emotional fatigue and decreased psychological well-being (Johari & Ahmad, 2019). Shamsuddin et al. (2013) found that students subjected to intense academic expectations are

more likely to exhibit symptoms of burnout and reduced academic performance. Similarly, Teh et al. (2015) noted a significant link between heavy academic demands and elevated anxiety and depression levels.

In a comparative study involving students in Thailand and Singapore, Thanoi et al. (2023) reported that high academic expectations, coupled with limited faculty support and inadequate learning materials, increased academic stress. The study emphasized the role of individual coping skills, highlighting that students with higher resilience and academic self-efficacy were better equipped to manage stress. These findings parallel local research in Malaysia, where students often struggle to balance academic obligations with personal responsibilities (Ahmad Fuad et al., 2024).

Furthermore, insufficient academic guidance and lack of institutional support mechanisms have been found to exacerbate stress among students. In the Malaysian context, students frequently report difficulty accessing academic advising services or obtaining timely feedback, which further compounds stress levels (Shamsuddin et al., 2013). Overall, the literature indicates that academic workload not only serves as a critical determinant of stress but also interacts with institutional and personal factors to influence students' mental health outcomes.

Personal Problems

Personal issues, particularly interpersonal conflicts, and emotional struggles have also been identified as significant contributors to student stress. Martinez et al. (2013) emphasized that unresolved familial disputes, peer conflicts, and limited emotional support are associated with heightened psychological distress among university students. Similarly, Al-Dubai et al. (2011) found that students who lack effective emotional coping strategies are more likely to experience anxiety and disengagement from academic responsibilities.

Ahmad Fuad et al. (2024) argue that while personal problems do contribute to student stress, they often exert their influence in conjunction with other dominant stressors, such as financial hardship and academic overload. This interaction may amplify the impact of personal difficulties on overall well-being. Thanoi et al. (2023) support this view, noting that social isolation and the absence of peer support can exacerbate the effects of academic stress, especially in competitive learning environments.

In the Malaysian context, peer support networks have been shown to buffer the impact of personal stressors. According to Shamsuddin et al. (2013), students with strong social connections tend to manage stress more effectively than those who lack such support. However, for students experiencing social withdrawal or low emotional resilience, personal issues can significantly compromise their academic engagement and psychological stability. Thus, while personal issues may not always emerge as the most statistically dominant predictor, their indirect effects and interaction with other stressors remain critical considerations in understanding student well-being.

Financial Difficulties

Financial difficulties remain a well-documented stressor among university students, particularly those from low-income households or financially dependent on loans and part-time employment. Students who struggle to meet tuition fees and daily living expenses often report heightened levels of anxiety, reduced academic performance, and increased dropout intentions (Aloia & McTigue, 2019).

In Malaysia, financial constraints are especially relevant due to the high reliance on PTPTN loans and limited access to scholarships. Shamsuddin et al. (2013) reported that financial concerns among Malaysian students were directly associated with poor sleep quality and concentration difficulties. These findings are supported by Ahmad Fuad et al. (2024), who noted that economic insecurity not only affects students' ability to engage with academic content but also contributes to social withdrawal and emotional exhaustion.

Internationally, research by the Mental Health Foundation (2020) and ACHA (2022) echoes these concerns, linking financial instability with high levels of psychological distress. Students often experience compounded stress when financial issues coincide with academic deadlines or personal problems. Thanoi et al. (2023) argue that the psychological burden of financial insecurity may persist even in the presence of academic support, especially when basic needs such as housing, food, and transportation are not adequately met.

While financial support mechanisms exist, including student aid and bursary programs, many students remain unaware of available resources or face bureaucratic challenges in accessing them. This lack of accessibility and awareness further perpetuates stress and compounds existing vulnerabilities. Therefore, addressing financial stress among university students requires both institutional policy reform and proactive financial literacy programs aimed at improving students' resource management and long-term economic resilience.

Learning Environment

The learning environment plays a critical role in shaping students' academic experiences and overall well-being. A conducive learning environment encompasses not only physical infrastructure, such as classrooms and libraries, but also the psychological atmosphere, including interactions with faculty and peers. Disruptions in these aspects can significantly contribute to students' stress levels (Neigel et al., 2024).

Studies have shown that poorly maintained facilities, overcrowded classrooms, and limited access to academic resources such as computer labs or study materials can hinder academic engagement and elevate psychological strain (Martinez et al., 2013). In the Malaysian context, universities situated in rural or underfunded regions may face infrastructural challenges that directly affect the quality of learning and student satisfaction (Ahmad Fuad et al., 2024).

Additionally, the social environment within academic institutions—including the availability of supportive faculty, inclusive policies, and positive peer interactions—has been linked to students' mental health outcomes. According to Shamsuddin et al. (2013), students who report feeling isolated or unsupported by faculty are more prone to stress and disengagement. Conversely, institutions that promote collaborative learning and provide timely academic feedback tend to cultivate more resilient and motivated students.

International research further supports these findings. Thanoi et al. (2023) emphasized that students in institutions with flexible teaching approaches, accessible mental health services, and effective communication platforms experience significantly lower stress levels. The presence of proactive academic support systems, such as tutoring services and mentorship programs, can mitigate stress arising from other domains, including academic workload and personal challenges.

Despite its importance, the learning environment often receives less attention in stress-related research compared to academic or financial factors. However, its indirect influence through institutional culture, perceived fairness, and access to support mechanisms makes it a critical variable. Addressing issues within the learning environment requires a comprehensive approach, including infrastructure investment, faculty development, and student-centred policies aimed at fostering an inclusive and empowering academic atmosphere.

Empirical Evidence on Student Stress

Empirical research has extensively examined the prevalence and impact of stress among university students. Neigel et al. (2024) reported that students globally experience elevated stress levels resulting from academic, financial, and environmental stressors. In the United States, the American College Health Association (ACHA, 2022) found that over 40% of university students experience high stress, primarily due to academic workload and financial concerns. Likewise, the Mental Health Foundation (2020) reported that half of the students in the United Kingdom suffer from academic-related stress, with more than 25% experiencing stress-induced sleep disturbances.

In Malaysia, a longitudinal study by Mir et al. (2023) documented a notable rise in anxiety and depression among university students during the COVID-19 pandemic. The study attributed these trends to financial instability and disruptions in conventional learning modes. Students from lower-income households were particularly vulnerable, reporting significantly higher stress levels. Mud Shukri et al. (2023), in a systematic review, also confirmed that Malaysian university students exhibit the highest prevalence of stress and anxiety compared to other demographic groups. Supporting these findings, Ahmad Fuad et al. (2024) and Shamsuddin et al. (2013) identified academic workload and financial hardship as leading contributors to stress among Malaysian students, while Teh et al. (2015) further emphasized the mental health risks posed by financial insecurity.

Comparative studies from the ASEAN region offer additional insights. Thanoi et al. (2023) found that institutional support mechanisms in Thailand and Singapore play a crucial role in mitigating academic stress. These findings highlight the relevance of university-level interventions across different cultural and policy contexts.

Moreover, the transition to digital learning during the pandemic introduced new challenges, especially for students from poor backgrounds. Moy and Ng (2021) reported that limited access to digital infrastructure, poor internet connectivity, and technical difficulties significantly heightened stress levels among affected students. In contrast, Mir et al. (2023) noted that students who engaged in physical activity and maintained structured daily routines showed greater psychological resilience.

These empirical findings underscore the urgency for universities to adopt targeted strategies that reduce academic pressures, improve access to financial support, and strengthen digital infrastructure. Future research should investigate the long-term effects of e-learning environments and mental health interventions, particularly in post-pandemic educational contexts.

METHODOLOGY

This section outlines the research design, sampling methods, data collection instruments, and analytical techniques employed in this study to examine the key factors contributing to stress among Malaysian public university students.

Research Design

This study adopted a quantitative research design utilizing a cross-sectional survey method. The design was deemed appropriate for capturing students' perceptions and identifying patterns of stress-related factors at a specific point in time. Quantitative data enabled the researchers to analyse relationships between variables using statistical techniques and to generalize findings to a broader population of university students.

Research Hypotheses

This study was guided by the following hypotheses:

H1: There is a significant positive relationship between academic workload and student stress levels.
H2: There is a significant positive relationship between personal issues and student stress levels.
H3: There is a significant positive relationship between financial difficulties and student stress levels.
H4: There is a significant positive relationship between the learning environment and student stress levels.

Sampling Method

A non-probability convenience sampling technique was employed to recruit respondents. The target population consisted of undergraduate students enrolled in Malaysian public universities. A total of 208 students participated in the survey. Recruitment was conducted through digital platforms, including WhatsApp and QR codes distributed at strategic campus locations such as bus stops, cafeterias, and student centres.

Instrumentation

The questionnaire was developed based on expert input and adapted from validated research instruments (Tuckman, 1988) to ensure content validity and measurement consistency. It was divided into three sections: Section A collected demographic data, Section B measured students' stress levels (emotional well-being), and Section C assessed contributing factors, including academic workload, personal problems, financial issues, and the learning environment. To capture student perceptions accurately, a 5-point Likert scale was used in Sections B and C, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Each construct was operationalized using items drawn from previous validated studies. A summary of the questionnaire instrumentation, including the number of items and their respective sources, is presented in Table 1.

Table 1

Instrumentation of the Questionnaire

Construct	Number of Items	Source(s)
Student Stress Level	10	Ong (2014), Pan & Arip (2018)
Academic Workload	17	Mohamad et al. (2009), Ramli (2020), Mohd Saim et al. (2016)
Personal Problems	12	Mohamad et al. (2009), Mohd Saim et al. (2016)
Financial Issues	10	Mohamad et al. (2009), Ramli (2020), Kamarazaly et al. (2021)
Learning Environment	9	Mohamad et al. (2009)

Data Collection Procedures

Data collection was conducted over a period of four weeks. Ethical considerations were strictly followed, with informed consent obtained from all participants. Respondents were assured of the confidentiality and anonymity of their responses, and participation was entirely voluntary.

Data Analysis Techniques

The collected data were analysed using Statistical Package for the Social Sciences (SPSS) version 26. Descriptive statistics, including means and standard deviations, were used to summarize respondent characteristics and levels of agreement with each stress factor. Inferential analyses, such as Pearson correlation and multiple regression, were employed to examine the relationships between the independent variables (academic workload, personal issues, financial difficulties, and learning environment) and the dependent variable (student stress levels).

These techniques allowed for identifying significant predictors of stress, assessing the strength of relationships, and evaluating the model's explanatory power. The significance level was set at $p < 0.05$ for all inferential tests.

FINDING AND DISCUSSION

Data for this study were collected through an online survey distributed via Google Forms and shared through WhatsApp. To enhance participation, a QR code was strategically placed at Universiti Utara Malaysia (UUM) bus stops, allowing students to access and complete the survey conveniently. The data collection period spanned from September to December 2024, yielding a total of 208 completed responses from students across various public universities in Malaysia. This approach ensured a diverse and representative sample for the study.

Demographic Characteristics

The sample comprised 69.23% female (n=144) and 30.77% male (n=64) respondents, reflecting the trend of higher female enrolment in Malaysian public universities. Most participants (40.87%) were 23 years old, followed by those aged 22 years (24.52%) and 21 years (14.90%), indicating that most respondents were in their final years of undergraduate study. A smaller proportion were aged 18 years (1.44%) or older than 25 years (2.88%).

In terms of ethnic composition, Malay students constituted 74.04% of the sample, followed by Chinese (11.54%) and Indian (10.58%) students. Minority groups, including Kadazandusun, Iban, and Siam, collectively accounted for less than 2% of the respondents, aligning with the general demographic distribution in Malaysian public universities. Many respondents were single (97.60%), while only 2.40% were married, which is consistent with the typical demographic profile of university students who are primarily focused on their academic pursuits.

Regarding educational background, most respondents were pursuing a bachelor's degree (91.83%), while a smaller percentage were enrolled in Diploma programs (7.21%) and Foundation studies (0.96%). This study focused primarily on undergraduate students, with no respondents enrolled in master's or PhD programs.

University Affiliation and Study Level

Participants were drawn from various public universities across Malaysia, with the highest representation from Universiti Utara Malaysia (UUM) (65.86%), followed by Universiti Teknologi MARA (UiTM) (12.02%) and Universiti Malaya (UM) (3.85%). Other institutions, including Universiti Sains Malaysia (USM), Universiti Teknologi Malaysia (UTM), and Universiti Kebangsaan Malaysia (UKM), contributed smaller proportions to the sample. The overrepresentation of UUM students was anticipated due to the researcher's affiliation with the institution.

In terms of study level, the majority of respondents (52.89%) were in Semester 7, indicating a predominance of final-year students. Additionally, 17.80% were in Semester 5, and 11.54% in Semester 3, while a smaller proportion were in Semester 1 (9.13%) or beyond Semester 8 (1.92%). This distribution reflects the study's focus on undergraduate students at various stages of their academic journey.

Financial Support and Income

The National Higher Education Fund Corporation (PTPTN) was the primary financial support mechanism, with 29.34% of students relying solely on PTPTN loans, while an additional 36.54% received a combination of PTPTN and parental support. A total of 13.47% of respondents depended entirely on financial assistance from their parents, while 8.65% were recipients of scholarships. A smaller proportion of students were funded by Majlis Amanah Rakyat (MARA) (1.92%) or the Jabatan Perkhidmatan Awam (JPA) (1.44%).

For students engaged in part-time employment, their estimated monthly income ranged between RM200 and RM1,200, with 55.56% earning RM200 per month. This finding suggests that part-time employment primarily serves as a supplementary financial source rather than a primary means of sustaining university-related expenses. The financial strain experienced by students, particularly those

relying on loans and limited parental contributions, underscores the significance of financial assistance programs in reducing student stress and enhancing their academic well-being.

Instrument Reliability and Internal Consistency

Reliability analysis was conducted to assess the internal consistency of the questionnaire, ensuring that the instrument effectively measured the constructs under investigation. A total of 208 responses from public university students in Malaysia were analysed, and Cronbach's Alpha was utilized to evaluate the reliability of each construct. This measure determines the degree to which items within a scale consistently reflect the underlying concept, with values above 0.70 indicating acceptable reliability, while those exceeding 0.90 suggest strong internal consistency (Adamson & Prion, 2013; Ursachi et al., 2015).

Table 2 presents the Cronbach's Alpha values for each construct, all of which exceed 0.90, indicating a high level of reliability. The overall reliability score of 0.981 confirms that the questionnaire items exhibit strong internal consistency, with academic workload (0.961) demonstrating the highest reliability among the constructs. While values above 0.90 are considered highly reliable, some researchers caution that excessively high values may indicate redundancy among items rather than true reliability (Adamson & Prion, 2013).

Table 2

Cronbach's Alpha for Each Construct

Construct	Number of Items	Cronbach's Alpha
Student Stress Level	11	0.952
Academic Workload	17	0.961
Personal Problems	12	0.903
Financial Issues	10	0.926
Learning Environment	8	0.929
Overall Reliability	58	0.981

To further validate the instrument, item-total correlation analysis was conducted to examine whether the removal of any specific item would significantly affect overall reliability. The analysis revealed that most items maintained a Cronbach's Alpha of 0.981, indicating that removing any single item would not impact the instrument's reliability. For example, the item "Feeling nervous and stressed" recorded a corrected item-total correlation (CITC) of 0.638, suggesting a moderate contribution to the scale, while "I cannot overcome difficult situations" exhibited a higher CITC value of 0.766, indicating strong alignment with the overall construct.

However, one item "I feel worthless and have thoughts of 'it would be better to die', recorded a lower CITC value of 0.568, suggesting a weaker correlation with the overall construct. Nunnally and Bernstein (1994) recommend that items with CITC values below 0.30 should be revised or removed, as they may not contribute meaningfully to the scale. In this study, since all CITC values exceeded 0.50, no item was removed, reaffirming the instrument's validity and reliability for measuring stress-related factors among university students.

The findings confirm that the measurement instrument exhibits strong internal consistency, ensuring statistical robustness for assessing stress-related factors among university students. Additionally, item-total correlation analysis verified that each item contributed significantly to its respective construct, with no notable improvement observed upon the removal of any item. These results reinforce the reliability of the questionnaire, validating its suitability for subsequent inferential analyses.

Regression Analysis

A multiple regression analysis was conducted to examine the relationship between academic workload, personal problems, financial issues, and the learning environment on student emotional well-being. This analysis aimed to determine the extent to which these predictors influence students' stress levels. The regression model used is as follows:

$$E=\beta_0+\beta_1 BA+\beta_2 MP+\beta_3 MK+\beta_4 PP+\mu$$

where:
E = Student emotional well-being
BA = Academic workload
MP = Personal problems
MK = Financial issues
PP = Learning environment
μ = Error term
By substituting the estimated coefficients, the regression equation is:
$E_i=0.247+ 0.558BA + 0.000MP + 0.239MK + 0.127PP+\mu_i$
with standard errors: (0.144, 0.077, 0.082, 0.063, 0.077)

Table 3

Results of the Multiple Regression Analysis

Predictor Variable	Unstandardized Coefficient (B)	Standard Error	Standardized Coefficient (Beta)	t-value	Sig.
Constant	0.247	0.144	—	1.713	0.088
Academic Workload	0.558	0.077	0.548	7.214	<0.001
Personal Problems	0.000	0.082	0.000	-0.005	0.996
Financial Issues	0.239	0.063	0.229	3.767	<0.001
Learning Environment	0.127	0.077	0.127	1.649	0.101

Table 3 presents the results of the multiple regression analysis. The model explains 69.7% ($R^2 = 0.697$) of the variance in students' emotional well-being, indicating strong explanatory power. The F-statistic (116.926, $p < 0.001$) confirms the overall significance of the model, suggesting that the independent variables collectively influence students' stress levels. Among the four predictors, academic workload emerged as the most significant factor influencing students' emotional well-being (B = 0.558, Beta = 0.548, t = 7.214, $p < 0.001$). This suggests that students experiencing greater academic pressure such as coursework deadlines and exam preparation are more likely to experience stress.

Similarly, financial issues significantly influence students' emotional well-being (B = 0.239, Beta = 0.229, t = 3.767, p < 0.001), indicating that students facing financial constraints such as difficulty covering tuition fees and daily expenses are at higher risk of stress. In contrast, personal problems were found to have no significant impact on student emotional well-being (B = 0.000, Beta = 0.000, t = -0.005, p = 0.996), suggesting that, within the context of this study, family conflicts and interpersonal issues do not substantially affect students' stress levels. Additionally, while the learning environment showed a positive association with emotional well-being, the effect was not statistically significant (B = 0.127, Beta = 0.127, t = 1.649, p = 0.101). This suggests that although factors such as classroom conditions and campus facilities may contribute to stress, they are not primary determinants of students' emotional well-being.

Table 4

Results of the Hypothesis Testing

Hypothesis	Statement	Decision
H1	Academic workload has a significant relationship with student stress levels.	Supported
H2	Personal problems have a significant relationship with student stress levels.	Not Supported
H3	Financial issues have a significant relationship with student stress levels.	Supported
H4	The learning environment has a significant relationship with student stress levels.	Not Supported

The regression analysis confirms that academic workload and financial issues are the most significant predictors of student emotional well-being, whereas personal problems and the learning environment exhibit no significant effects.

Table 4 presents the results of the hypothesis testing, reinforcing that academic workload (H1) and financial issues (H3) have statistically significant effects on student stress levels (p < 0.001). Conversely, personal problems (H2) and the learning environment (H4) were not found to have significant relationships, suggesting that these factors may not be primary determinants of stress among students in the sampled population.

These findings align with previous studies indicating that academic demands and financial constraints are the primary stressors among university students (Johari & Ahmad, 2019; Ismail, 2024). The lack of a significant relationship between personal problems and stress may be attributed to students' ability to compartmentalize personal challenges or the availability of peer support networks. Similarly, the insignificant effect of the learning environment suggests that while classroom conditions and academic infrastructure contribute to student experiences, they are secondary to academic and financial pressures in influencing stress levels.

CONCLUSION AND RECOMMENDATIONS

This study investigated the impact of academic workload, personal problems, financial difficulties, and the learning environment on stress levels among students in Malaysian public universities. The findings reveal that academic workload and financial issues are the most significant predictors of student stress. In contrast, personal problems, and the learning environment, although contextually relevant, did not show statistically significant effects. These outcomes offer important insights into the multifaceted nature of student well-being and underscore the need for targeted institutional responses.

The strong association between academic workload and stress reflects the psychological burden posed by assignments, examinations, and stringent academic schedules. This result corroborates previous research (Kassim & Zakaria, 2015; Johari & Ahmad, 2019; Ross et al., 1999; Sipon, 2000; Ooi, 2002), which consistently identifies excessive academic demands as a major source of psychological strain. Earlier studies by Mahfar et al. (2007) and Hamsan et al. (2010) further affirm that chronic academic stress can hinder academic performance, highlighting the urgency of implementing structured workload management policies.

Although personal problem such as emotional challenges and interpersonal conflicts is recognized as contributors to student distress, their statistical insignificance in this study may suggest the presence of effective coping mechanisms or institutional support networks that help buffer their impact. This interpretation aligns with prior findings by Martinez et al. (2013) and Al-Dubai et al. (2011), which suggest that supportive cultural or social structures can reduce the psychological effects of such issues.

Financial hardship, on the other hand, emerged as a key determinant of stress. Students struggling with tuition fees, cost of living, and reliance on loans such as PTPTN reported higher stress levels. These findings are consistent with prior research by Al-Dubai et al. (2011), Nurhafizah and Muhammad (2017), and Chai et al. (2004), which identify economic instability as a prominent source of student anxiety. Policy recommendations include enhancing student financial aid programs, introducing flexible fee payment structures, and providing targeted financial literacy training to empower students in managing their economic burdens.

While the learning environment did not significantly influence stress in statistical terms, qualitative interpretations suggest it still plays a supportive role. Stress linked to overcrowded classrooms, outdated learning tools, or limited digital access echoes findings by Ooi (2002), Dennis et al. (2015), and Barrett et al. (2015). Thus, investments in digital infrastructure, flexible learning spaces, and inclusive pedagogical approaches remain essential for fostering student engagement and reducing background stressors.

The findings of this study underscore the urgent need for universities to prioritize strategies that directly address academic workload and financial stress. Recommended measures include structured course scheduling, improved academic advising, expansion of financial support schemes, and integration of campus-based mental health services. These efforts should be complemented by broader well-being initiatives aligned with Sustainable Development Goal (SDG) 3 (Good Health and Well-being), thereby promoting holistic student development.

Additionally, technological innovations such as mobile stress management applications and virtual relaxation tools present promising avenues for scalable, student-friendly coping mechanisms. Embedding such tools within university wellness frameworks could enhance accessibility to mental health support.

Despite its valuable contributions, this study is not without limitations. The focus on four primary stress factors excludes other psychological and socio-environmental determinants. Moreover, its scope is limited to public university students, reducing generalizability to private or international student cohorts. Future research should expand to include diverse student populations and examine the efficacy of institutional interventions in mitigating academic and financial stress.

In conclusion, addressing student stress is essential not only for academic achievement but also for nurturing a resilient, well-rounded graduate workforce. Universities that invest in comprehensive support structures, both academic and emotional, are more likely to produce graduates who are intellectually equipped and psychologically prepared to meet the demands of an increasingly complex and competitive global environment.

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REFERENCES

Adamson, K. A., & Prion, S. (2013). Reliability: Measuring internal consistency using Cronbach's Alpha. *Clinical Simulation in Nursing, 9*(12), e571–e572. https://doi.org/10.1016/j.ecns.2013.09.001

Ahmad Fuad, N. A., Mohd Rizuan, Y., Ramli, N. A. N., Heitin, F. S., Ravindran, D., Hussin, N. A. A. B., & Aminuddin Jafry, N. H. (2024). Stress factors among university students: A case study at Universiti Kebangsaan Malaysia. *International Journal of Academic Research in Business and Social Sciences, 14*(11), 1–15.

Al-Dubai, S. A. R., Ganasegeran, K., Al-Shagga, M. A., & Rampal, K. G. (2011). Emotional distress and coping strategies among university students: A cross-sectional study in Malaysia. *The Medical Journal of Malaysia, 66*(5), 477–482.

Aloia, L. S., & McTigue, E. M. (2019). The influence of psychological well-being on academic stress among college students. *Journal of Educational Psychology, 111*(3), 500–510. https://doi.org/10.1037/edu0000298

Arthur, N. (1998). The effects of stress, depression, and anxiety on postsecondary students' coping strategies. *Journal of College Student Development, 39*(1), 11–22. https://doi.org/10.1353/csd.1998.0390

Atkinson, J. W. (1988). *Motivational determinants of risk-taking behavior*. Appleton-Century-Crofts.

Barrett, P., Zhang, Y., Moffat, J., & Kobbacy, K. (2015). A holistic, multi-level analysis identifying the impact of classroom design on pupils' learning. *Building and Environment, 89*, 118–133. https://doi.org/10.1016/j.buildenv.2015.02.013

Berita Harian. (2002, March 6). 35 peratus pelajar alami tekanan perasaan. *Berita Harian*, p. 12.

Bowman, N. A. (2010). The development of psychological well-being among first-year college students. *Journal of College Student Development, 51*(2), 180–200. https://doi.org/10.1353/csd.0.0118

Chai, M. S., Low, W. Y., & Chow, Y. C. (2004). Psychological health and coping strategies among Malaysian students. *Malaysian Journal of Psychiatry, 12*(2), 25–33.

Cooper, C. L., & Marshall, J. (1976). Occupational sources of stress: A review of the literature relating to coronary heart disease and mental ill health. *Journal of Occupational Psychology, 49*(1), 11–28. https://doi.org/10.1111/j.2044-8325.1976.tb00325.x

Dennis, C. L., Falah-Hassani, K., & Shiri, R. (2015). Prevalence of antenatal and postnatal anxiety: Systematic review and meta-analysis. *The British Journal of Psychiatry, 208*(5), 375–385. https://doi.org/10.1192/bjp.bp.114.160336

Fadhil, M. (2020). *Kesan stres terhadap kesihatan: Panduan untuk pelajar universiti*. Universiti Putra Malaysia Press.

Gold, Y., & Roth, R. A. (1993). *Teachers managing stress & preventing burnout: The professional health solution*. Falmer Press.

Hamsan, H., Ahmad, A. R., & Mohd Yusoff, H. (2010). Hubungan antara tekanan akademik dan penglibatan pelajar universiti dalam aktiviti sosial dan kokurikulum. *Jurnal Pendidikan Malaysia, 35*(1), 27–33.

Hargrove, M., Quick, J. C., Nelson, D. L., & Quick, J. D. (2013). The theory of preventive stress management: A 33-year review and update. *Stress and Health, 27*(3), 182–193.

Ismail, N. A. (2024). Academic stress and student performance in higher learning institutions: A structural equation modeling approach. *Malaysian Journal of Learning and Instruction, 21*(2), 35–49.

Johari, A., & Ahmad, R. (2019). Predictors of academic stress among university students. *International Journal of Education and Training, 5*(1), 42–51.

Kamarazaly, M. A., Daud, N., & Kamal, N. A. M. (2021). Financial literacy and well-being among university students in Malaysia. *Malaysian Journal of Consumer and Family Economics, 26*(1), 78–92.

Kassim, S., & Zakaria, A. (2015). The relationship between academic stress and academic performance among university students. *Journal of Cognitive Sciences and Human Development, 1*(1), 45–55.

Lazarus, R. S., & Launier, R. (1977). Stress-related transactions between person and environment. In L. A. Pervin & M. Lewis (Eds.), *Perspectives in interactional psychology* (pp. 287–327). Springer.

Mahfar, M., Samsudin, M., & Hamzah, M. (2007). Academic stress among Malaysian students: Sources and coping strategies. *Jurnal Psikologi Malaysia, 21*, 75–89.

Martinez, P., Piliavin, I., & Vingilis, E. (2013). Coping mechanisms and social support among university students. *Journal of Youth Studies, 16*(5), 567–582.

Mental Health Foundation. (2020). *Coronavirus: Mental health in the pandemic study*. https://www.mentalhealth.org.uk/our-work/research/coronavirus-mental-health-pandemic

Mir, R. A., Hussin, R., & Nor, N. M. (2023). Mental health and academic achievement among students during the COVID-19 pandemic. *International Journal of Academic Research in Progressive Education and Development, 12*(1), 91–105.

Mohamad, M., Jusoff, K., & Ali, A. (2009). Relationship between stress and academic achievement among university students in Malaysia. *Journal of Educational Psychology, 4*(3), 45–54.

Mohd Saim, N., Tahir, L., & Ahmad, N. (2016). Faktor tekanan dalam kalangan pelajar institusi pengajian tinggi. *Jurnal Psikologi Malaysia, 30*(1), 67–76.

Moy, F. M., & Ng, Y. H. (2021). Impact of COVID-19 on mental health and lifestyle behaviors in Malaysia: A nationwide survey. *Asian Journal of Psychiatry, 58*, 102592. https://doi.org/10.1016/j.ajp.2021.102592

Mud Shukri, S. N. A., Zulkifli, S. N., & Shafie, N. H. (2023). Mental health status among Malaysian university students during the COVID-19 pandemic: A systematic review. *Malaysian Journal of Public Health Medicine, 23*(2), 13–25.

Neigel, P., Vargo, A., Tag, B., & Kise, K. (2024). Identifying periods of cyclical stress in university students using wearables in-the-wild. *arXiv preprint arXiv:2402.11823*. https://doi.org/10.48550/arXiv.2402.11823

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill.

Nurhafizah, H., & Muhammad, M. (2017). Financial stress and psychological distress among undergraduates. *Journal of Student Affairs, 25*(2), 113–129.

Ooi, S. C. (2002). Environmental factors affecting university students' learning and behavior. *Journal of Educational Research, 13*(2), 101–115.

Pan, C. Y., & Arip, M. A. S. M. (2018). Validation of the student stress inventory among Malaysian adolescents. *Malaysian Journal of Youth Studies, 18*(2), 23–40.

Rahman, N. A. (2021, July 10). Pelajar UiTM Kedah meninggal dunia disyaki akibat tekanan belajar. *Berita Harian*. https://www.bharian.com.my/berita/kes/2021/07/837942

Ramli, R. (2020). The impact of financial issues on university students' academic performance. *Journal of Management Research, 6*(2), 55–66.

Ross, S. E., Niebling, B. C., & Heckert, T. M. (1999). Sources of stress among college students. *College Student Journal, 33*(2), 312–317.

Schafer, W. (1992). *Stress management for wellness*. Harcourt Brace College Publishers.

Selye, H. (1936). A syndrome produced by diverse nocuous agents. *Nature, 138*, 32. https://doi.org/10.1038/138032a0

Selye, H. (1974). *Stress without distress*. Lippincott.

Shamsuddin, K., Fadzil, F., Wan Ismail, W. S., Shah, S. A., Omar, K., Muhammad, N. A., Jaffar, A., Ismail, A., & Mahadevan, R. (2013). Correlates of depression, anxiety, and stress among Malaysian university students. *Asian Journal of Psychiatry, 6*(4), 318–323. https://doi.org/10.1016/j.ajp.2013.01.014

Sipon, S. (2000). *Tekanan emosi di kalangan pelajar universiti: Satu kajian kes*. Universiti Kebangsaan Malaysia.

Taylor, S. E. (2022). Social support and its impact on academic stress among students. *Journal of Educational Psychology, 114*(2), 310–320. https://doi.org/10.1037/edu0000586

Teh, C. K., Ngo, C. W., Zulkifli, R. A., Vellasamy, R., & Suresh, K. (2015). Depression, anxiety, and stress among undergraduate students: A cross-sectional study. *Open Journal of Epidemiology, 5*(4), 260–268. https://doi.org/10.4236/ojepi.2015.54030

Thanoi, W., Phongphanngam, S., & Sriwattanapong, N. (2023). Academic pressure and stress among university students in ASEAN countries: A comparative analysis. *ASEAN Journal of Education, 3*(1), 21–33.

Tuan Muhamad Adnan, T. B. (2023, July 5). Eksklusif: Pelajar tertekan masalah mental. *Sinar Harian*. https://premium.sinarharian.com.my/article/227681/fokus/semasa/eksklusif-pelajar-tertekan-masalah-mental

Tuckman, B. W. (1988). *Conducting educational research* (3rd ed.). Harcourt Brace Jovanovich.

Utusan Malaysia. (2021, July 19). Pelajar cemerlang UiTM maut pendarahan dalam otak. *Utusan Malaysia*. https://www.utusan.com.my/terkini/2021/07/pelajar-cemerlang-uitm-maut-pendarhan-dalam-otak/

Ursachi, G., Horodnic, I. A., & Zait, A. (2015). How reliable are measurement scales? External factors with indirect influence on reliability estimators. *Procedia Economics and Finance, 20*, 679–686. https://doi.org/10.1016/S2212-5671(15)00123-9

Viejo et al. (2018). Brief scale of psychological well-being for adolescence: Development and validation. *Journal of Youth and Adolescence, 47*(10), 2163–2177. https://doi.org/10.1007/s10964-018-0879-3