

PROPOSED MODEL OF STUDENT STRESS: ACADEMIC STRESSORS AND COPING RESOURCES IN HIGHER EDUCATION

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Abstract: *Student stress has become an increasingly significant concern in higher education institutions, particularly as students navigate multiple academic, financial, and psychosocial demands. Despite extensive research on student mental health, existing studies often examine stress determinants in isolation, with limited theoretical integration of academic stressors and coping resources within a unified framework. This paper develops a conceptual model of student stress by integrating academic workload, financial strain, sleep quality, and social support within the Transactional Model of Stress and Coping. Drawing upon recent empirical and theoretical literature, academic workload and financial strain are positioned as primary external stressors, while sleep quality and social support are conceptualized as key coping resources that may buffer stress responses. By synthesizing these dimensions, the proposed framework offers a more holistic understanding of how external demands and personal resources interact to influence students perceived stress. The model provides theoretical direction for future empirical research and practical guidance for higher education institutions in designing targeted interventions to enhance student well-being.*

Keywords: *Student stress, conceptual model, academic stressors, coping resources, higher education*

Introduction

Stress in university students has become a major global issue in public health, with prevalence rates showing that stress is a considerable percentage of the tertiary student population. Stress is a widespread emotional or mental condition that students go through trying to adjust to academic requirements and life changes in their university life (Philips, 2020). Cross-national surveys also indicate that stress among students is very common with about 67% of students in the United States, 55% in the United Kingdom and up to 80% in Japan reporting to be under high levels of stress (Navrosazshvili, 2025). These results demonstrate that student stress is a global issue impacting students in a variety of educational systems and cultures.

As we all understand, higher education needs to be well-prepared both mentally and physically since students must adjust to a new academic life and social space (Fuad, 2024). To illustrate this, a survey of university students in Shah Alam revealed that 44.6% of the participants were faced with moderate to severe stress levels, which indicated that stress is an important issue in the Malaysian university setting (Wong, 2023). On the same note, research carried out in Universiti Malaysia Sabah (UMS) showed that nearly 32.6% of first-year students had higher levels of stress, and one of the factors that contributed to the stress was a lack of sleep (Azwan, 2024). The findings highlight the importance of studying the stress experienced by students in local institutions.

Some of the main factors that affect stress levels among university students have been identified in previous studies. It is reported that academic workload in Malaysian higher institutions is a leading cause of stress among university students due to continuous assessment, strict academic schedules, and the necessity to achieve high academic standards (Yaacob, 2025). According to Mohan (2025), escalating tuition fees, soaring cost of living, and the high demand of basic learning materials like textbooks and digital technology has made the issue of finances to be a major concern to the Malaysian university students. Moreover, poor sleep has been associated with increased stress among students since insufficient sleep affects how students are able to manage their daily needs (Filippis, 2024). A systematic review conducted by Ruihua (2025) also found out that emotional and informational support have been identified to be one of the best predictors of better mental health and lower stress. These studies, together, propose that the combination of academic workloads, financial strain, quality of sleep, and social support factors influence student stress.

Although the stress among students has been studied extensively, there are still research gaps that exist. Student stress is discussed as a construct, and many available studies concentrate on general mental health outcomes, including anxiety or depression. Moreover, past studies have tended to examine individual stress as an independent issue without taking into account the interaction of a combination of factors including academic workload, monetary stress, quality of sleep, and social support and their impact on the overall stress levels. Moreover, it is not prominently covered in the empirical study that explicitly addresses UiTM branch campuses, such as UiTM Perlis, where students could face specific stressors due to campus location, resources, and student demographics. It is significant to address these gaps in order to have a more comprehensive picture of student stress as it applies to the Malaysian context.

The theoretical framework of this study is the Transactional Model of Stress and Coping by Lazarus and Folkman (1984). The given model stated that stress arises when people feel that the number of demands imposed on them surpasses their own coping resources (Kivak, 2024).

Academic workload and financial strain can be evaluated as stressors increasing the perceived demands of the university students, whereas sleep quality and social support can be seen as factors that determine the effective coping of students. This framework is a valuable context of interpreting how various stress-related variables are related to the total stress experience of students and justifies the choice of variables studied in the current study.

Accordingly, the main objective of the research is to explore the major stress determinants among UiTM Perlis undergraduate students, especially the effect of academic workload, financial stress, sleep quality, social support on stress levels. In order to improve student well-being and academic results at UiTM Perlis and other similar Malaysian higher education settings, the study aims to identify and quantify these determinants in order to inform focused interventions, support services, and policy initiatives.

Literature Review

Student Stress

Stress is a mental pressure of environmental and social well-being problems that people encounter and have caused numerous diseases (Kaur, 2025). Stress occurs when students become strained and unable to handle the strain in the current competitive era (Kaur, 2025). Stress is an inherent aspect of life, with a wide spectrum of both physical and psychological along with contextual outcomes (Ghasemi, 2024). Stress occurs in the academic environment due to the interplay between perceived challenges including exams, deadlines, and academic workload and the available resources in coping with an individual (Agudelo, 2025). The demands that go beyond the ability of a student to cope with may cause stress to have a deleterious impact on motivation, cognitive functioning, and well-being (Agudelo, 2025). Other studies conducted by Juniar (2025) also highlight the fact that stress is a significant problem among university students, and when they are not addressed, it may result in poor academic results and quality of life.

Recent empirical studies have shown that stress is very prevalent and has a high impact on the students in different universities around the world. A meta-analysis and systematic review of African university students indicated a prevalence of perceived stress of 64.72 percent in the pool, which means that a significant number of students have moderate to high levels of stress (Fentahun, 2025). Equally, Mohammed (2024) discovered that 86.5% of medical students in Egypt recorded stress, and 48.9% reported severe stress, which highlights the severity of stress in academically challenging courses. It was also found in the study that the resilience of 49.9% of students was low and that the relationship between resilience and stress was noted to be negative indicating that students with low resilience are more vulnerable to stress. In addition, a study conducted among students at the Spanish university revealed that perceived stress was a significant predictor of psychological distress, and that stress was one of the key mental health issues (Camacho, 2025). In general, these results prove that student stress is a very common and severe problem that adversely impacts the mental health and academic performance of students.

Academic Workload and Student Stress

Several empirical studies have developed a strong positive correlation between academic workload and student stress, and this demonstrates that there is a positive association between increment of academic demands and the perceived stress in university students (Mohan, 2025).

Such a relationship is invariably present as academic workload is an ongoing and inevitable pressure, which needs to be addressed with constant cognitive, emotional, and time-related resources by students (Berdida, 2022).

Studies have shown that students who have increased academic load levels of stress because of frequent testing, overlapping deadlines and higher academic expectations (Wahyuni, 2025). Students are likely to be under time pressure and experience cognitive overload when they are obliged to finish several tasks in a short time, and such stress factors increase stress responses and decrease their capacities to handle the academic requirements efficiently.

Research in Malaysian higher education institutions has revealed that persistent coursework and exam pressure are important contributors to perceived levels of stress among students not only in institutions where ongoing evaluation is practiced, but also in those where final exams are administered (Yaacob, 2025). This observation is reinforced by studies conducted in the UiTM campuses that indicate that heavy loads of assignments and academic timetables that are highly structured are some of the most commonly reported sources of stress among the undergraduates (Mohd, 2017).

Equally, cross-border research has proven that the high academic requirements can be linked to a rise in psychological stress, mental exhaustion, and academic burnout in university students (Mayyadah, 2025). Students exposed to high academic workloads over time have been reported to experience mental exhaustion, which leads to emotional exhaustion, lack of motivation, and disinterest in their learning activities (Berdida, 2022).

These results indicate that stress levels of students are prone to increase with the increase in academic workload, especially when workload requirements surpass the coping abilities of students and the resources they could utilize (Mohan, 2025). As students feel that they do not have enough time, abilities, or resources to tackle academic challenges, workload stress increases and can have adverse impacts on psychological health and academic achievement.

Financial Strain and Student Stress

The recent empirical studies have all recorded a positive association between financial strain and student stress which implies the higher the extent of financial difficulty is the higher the extent of perceived stress is among the university students. Nasr (2024) conducted an open-access study that examined the effects of financial stress on the student well-being in higher education institutions in Lebanon. The results showed that financial strain and perceived stress were significantly and positively related with students with higher financial strain levels reporting higher stress levels. The research also revealed that financial stress had negative consequences on the mental health and the quality of sleep and generally well-being of students, which means that financial strain is a repetitive and significant stressor in undergraduate students.

In line with this finding, research carried out among Malaysian students in the private universities revealed that financial matters were positively correlated with the level of stress among students (Aziz, 2025). The students who stated that they had more challenges in meeting the cost of education and daily living had much higher levels of psychological stress. The results indicate that financial stress causes emotional stress and decreases the capacity of students to effectively handle academic related tasks, which elevates the level of stress.

More recently Morimura (2025) looked at the consequences of perceived financial downward on psychological outcomes among undergraduate students in Japan. The results of the study revealed that students that had a negative change in their financial situation had a significantly higher occurrence rate of depressive symptoms and even psychological distress which are both directly linked to high levels of stress. Notably, the results show that financial strain and stress have a positive correlation and stress-related mental health outcomes, which supports the idea that financial insecurity worsens stress in university students.

On the whole, these empirical studies agree in a consistent manner that financial strain is positively and significantly related to student stress in various contexts of cultural and educational backgrounds. There is an increment in the perceived level of the student stress as more and more financial difficulty is met. This uniform empirical data gives a good reason to include financial strain as an independent variable in the current research and substantiate the hypothesis regarding the effects of the financial strain on student stress of the UiTM Perlis students.

Sleep Quality and Student Stress

Empirical data indicate that poor sleep quality has a strong relationship with perceived stress in college undergraduate students with a large study design including 8,178 students revealing that perceived stress directly predicted poorer sleep quality based on the Pittsburgh Sleep Quality Index (PSQI) (Huang, 2024). Likewise, in analytical research conducted on students of health sciences, it was found that the perceived stress levels had a significant positive correlation with low sleep quality, which means that more stressed students had high chances of reporting poor sleep (Razaq, 2024). Medical undergraduates in Anhui Province showed that heavier academic stress like high academic load each week was associated with lower sleep quality which confirmed that academic pressures are associated with sleeping disorders (M. Li, 2025).

The connection between sleep quality and stress among students is also supported by other studies which found that students with stress symptoms associated with the academic and mental burden were more likely to have poor sleep quality than those who said they were not stressed (Thapa, 2025). In a study that surveyed medical students, perceived academic and psychological stress were associated with higher levels of reporting a sleep disturbance and lower levels of reporting reduced sleep quality, indicating that the stress of academics leads to sleep disruption in highly demanding programs (Ozdemir, 2024). The interrelation of stress and sleep outcomes in university environments was revealed by cross-sectional work among students showing that the poor quality of sleep is associated with increased perceived stress, depressive mood and anxiety symptoms (Gosadi, 2025).

Variability in the strength of the sleep stress relationship has also been observed in some empirical studies. An example of this is that a study on biology education students found poor sleep quality to be common, without significant effect on stress levels and that the relationship may be moderated by individual coping or discipline-specific factors (Wijayanti, 2025). The studies on the mediating capacity of psychological resources demonstrated that the greater the stress level, the poorer the sleep quality and that emotional factors depression can be included in the relationship, which means that the mechanisms of intermediation between the stress level and sleep quality are complicated (Huang, 2024). Altogether, the existing body of empirical research suggests that low sleep quality is typically positively correlated with a perceived stress level among groups of students, but the strength of this relationship may depend on the academic setting and personal resource variables (Huang, 2024).

Social Support and Student Stress

Empirical research has been conducted on the connection between social support and student stress numerous times and has shown that social support is a major player in alleviating stress among students in universities. Li (2025) has done extensive systematic review of 51 empirical studies on how social support affects student well-being. Their results indicated that students who reported greater perceived social support levels had a significantly lower level of stress and psychological distress. The paper has highlighted that emotional family and peer support showed to be especially useful in counteracting the adverse impact of academic stress. This result is in line with the stress-buffering theory, according to which social support has a neutralizing effect on the negative effects of stress by increasing coping resources (Li, 2025).

In the same way, Ishraq (2022) empirically investigated the effect of other factors on student stress in an online setting and concluded that students who reported feeling socially isolated and having little opportunities to interact with peers ranked their levels of stress considerably higher. Their research pointed out that the lack of social engagement and emotional support increased the academic stress, particularly when there is limited face-to-face communication with others. This empirical fact implies that social support is necessary to ensure the psychological well-being of students, especially when their academic pressure grows (Ishraq, 2022).

Wilks (2008) has done a quantitative research study on the students of a university and has identified a significant negative correlation between perceived social support and the level of stress. Students who perceived more social support had lower stress and emotional adjustment. In the same line of thought, Hefner (2009) studied mental health and social connectedness in undergraduates and found that students who had strong social support networks had less stress and less mental health issues. These researches support the claim that social support is a protective measure against stress.

Additionally, a study conducted by Rocco de Filippis (2024) established that social support had a significant predictive effect on less academic stress among college students by enhancing time management and coping tactics about emotions. Students who were encouraged and supported by their fellow students and relatives dealt with academic pressures better. All these empirical results point to the fact that social support is continuously seen to have a negative and significant relationship with student stress in a variety of educational settings.

To conclude, the findings of empirical studies on this topic are overwhelming, and it is safe to conclude that social support minimizes stress levels among students. Students who feel that they have a good emotional and practical support are more likely to endure academic and personal problems. Thus, the social support is assumed to exhibit a large negative correlation with student stress among UiTM Perlis undergraduates in line with the local and international empirical studies.

Methodology

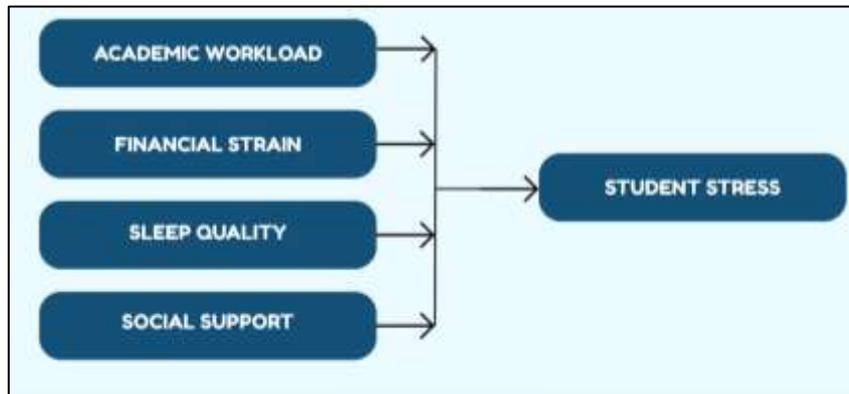


Figure 1: Conceptual Framework of the Factors Influencing Student's Stress Among UiTM Perlis Students

H1: There is a positive significance relationship between academic workload and student stress among UiTM Perlis students.

H2: There is a positive significance relationship between financial strain and student stress among UiTM Perlis students.

H3: There is a negative significant relationship between sleep quality and student stress among UiTM Perlis students.

H4: There is a negative significance relationship between social support and student stress among UiTM Perlis students.

Discussion and Conclusion

This study aimed to investigate the key factors influencing student stress among UiTM Perlis students, specifically academic workload, financial strain, sleep quality, and social support. Guided by the Transactional Model of Stress and Coping, the findings provide empirical support for the role of both stressors (academic workload and financial strain) and coping resources (sleep quality and social support) in determining students' stress levels.

The results indicate that academic workload has a significant positive relationship with student stress. This finding is consistent with previous studies which reported that continuous assessments, overlapping deadlines, and high academic expectations contribute significantly to psychological strain among university students. When academic demands exceed students' coping capacity, stress levels increase. Within the UiTM Perlis context, structured academic schedules and assignment-heavy coursework may intensify students' perceived pressure, particularly during peak assessment periods. This supports Hypothesis 1 and aligns with the Transactional Model, where academic workload is perceived as a primary stressor.

Similarly, financial strain demonstrates a significant positive relationship with student stress, supporting Hypothesis 2. Students who experience difficulty in covering tuition fees, accommodation, transportation, and daily living expenses are more likely to report elevated stress levels. In the Malaysian context, rising living costs may further intensify financial pressure on students. Financial insecurity not only affects students' emotional well-being but

may also reduce their concentration and academic performance. This finding reinforces previous research that identifies financial concerns as a persistent and impactful stress determinant in higher education institutions.

In contrast, sleep quality shows a significant negative relationship with student stress, supporting Hypothesis 3. Students who reported better sleep quality experienced lower levels of stress. Poor sleep may reduce cognitive functioning, emotional regulation, and coping capacity, thereby increasing vulnerability to stress. The finding highlights the importance of healthy sleep habits among university students, particularly during examination periods when sleep deprivation is common. Sleep quality can therefore be viewed as an important personal coping resource that buffers stress.

Furthermore, social support is negatively and significantly related to student stress, supporting Hypothesis 4. Students who perceive stronger emotional and practical support from family, peers, and lecturers tend to report lower stress levels. Social support enhances coping ability, provides reassurance, and reduces feelings of isolation. In line with the stress-buffering theory, social support functions as a protective factor that mitigates the negative effects of academic and financial pressures.

Overall, this study contributes to the existing literature by examining multiple stress determinants simultaneously within the UiTM Perlis context. Unlike previous research that often focused on individual factors separately, this study integrates academic, financial, behavioral, and social dimensions to provide a more comprehensive understanding of student stress. The findings offer practical implications for university administrators, counsellors, and policymakers to develop targeted stress management programs, financial assistance initiatives, academic workload planning strategies, and peer support systems.

In conclusion, student stress among UiTM Perlis students is significantly influenced by both external demands and internal coping resources. Academic workload and financial strain increase stress levels, while sleep quality and social support reduce stress. Addressing these factors holistically is essential in promoting students' psychological well-being and academic success.

Limitations and Suggestion for Future Research

Despite its contributions, this study has several limitations that should be acknowledged. First, the study adopted a cross-sectional research design. Data were collected at one point in time, which limits the ability to establish causal relationships between the variables. Future research should consider longitudinal designs to examine changes in stress levels over time and to better understand causal directions between stressors and coping factors.

Second, this study relied on self-administered online questionnaires. Self-reported data may be subject to response bias, including social desirability bias and inaccurate self-assessment. Future studies could incorporate mixed-method approaches, such as interviews or focus group discussions, to obtain deeper insights into students' stress experiences. Third, the sample was limited to students from UiTM Perlis only. Therefore, the findings may not be generalizable to other UiTM campuses or Malaysian universities with different demographic characteristics and campus environments. Future research should expand the sample to include multiple institutions or conduct comparative studies between urban and rural campuses.

Fourth, this study focused only on four determinants of stress. Although academic workload, financial strain, sleep quality, and social support are significant predictors, other potential factors such as personality traits, coping styles, resilience, academic performance, part-time employment, and digital learning stress were not examined. Future research could explore additional psychological and environmental variables to develop a more comprehensive stress model. Finally, moderating and mediating effects were not examined in this study. Future studies may investigate whether variables such as resilience or coping strategies mediate the relationship between stressors and stress, or whether demographic factors (e.g., gender, year of study, program level) moderate these relationships.

In summary, while this study provides valuable empirical evidence on the determinants of student stress among UiTM Perlis students, further research is needed to expand its scope, improve methodological rigor, and deepen theoretical understanding. Continued research in this area is crucial to developing effective interventions and enhancing student well-being in higher education institutions.

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