

The Effects of Psychological Well-being and Social Support on Mental Stress: The Mediating Role of Self-Esteem among University Students in Malaysia

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ABSTRACT: This study examined the effects of psychological well-being and social support on mental stress among university students in Malaysia, with self-esteem considered as a psychological mechanism in the proposed model. Mental stress has become an important issue in higher education because students often experience academic pressure, social adjustment challenges, financial concerns, and emotional demands. Drawing on Stress and Coping Theory, this research explained how internal psychological resources and external support systems might influence students' ability to manage stress. A quantitative research design was adopted, and data were collected through a structured questionnaire distributed to university students in Malaysian higher education institutions. Convenience sampling was used because a complete sampling frame was not available. The required sample size was determined using G*Power analysis, which indicated a minimum of 222 respondents for the proposed model. The data were analyzed using SPSS and SmartPLS to assess the reliability, validity, and structural relationships among the constructs. This study contributed to the student mental health literature by providing a clearer understanding of the relationships among psychological well-being, social support, self-esteem, and mental stress, while offering practical guidance for universities, counsellors, and policymakers.

KEYWORDS: Psychological well-being; social support; self-esteem; mental stress; Malaysia.

1. Introduction

Maintaining psychological well-being and having social support were recurring themes as protective factors against mental stress among university students, particularly those in high-demand academic settings. A recent study conducted in Malaysia demonstrated a positive correlation between social support and psychological well-being and a negative correlation between social support and students' stress levels [1]. Self-esteem was also considered an

important psychological asset that helped individuals manage stress more effectively and enhanced the positive impact of social resources. Despite this, mental stress continued to increase among university students due to academic pressure, social adjustment challenges, and emotional demands [2]. Although interest in self-esteem had grown, limited empirical research had examined its moderating role in the relationships between psychological well-being, social support, and mental stress among university students in Malaysia. Therefore, this study aimed to address this gap by examining the effects of psychological well-being and social support on mental stress, with self-esteem as a moderating variable.

In response to the increasing demands, pressures, and transition challenges in Malaysian higher education, mental health among university students had become an emerging public health concern. Recent studies showed that Malaysian undergraduates experienced moderate to high levels of stress, anxiety, and depressive symptoms, with psychological and environmental factors, including coping resources and perceived social support, influencing these outcomes [3]. Psychological well-being was identified as an important protective factor that buffered stress, while social support from family, peers, and significant others was a crucial determinant of emotional resilience and psychological well-being. In addition, self-esteem played an important role in students' academic adjustment and served as a psychological resource that significantly influenced stress levels and mental health outcomes among Malaysian students [4]. However, empirical research examining the simultaneous moderating effect of self-esteem on these relationships remained limited, particularly within the Malaysian university context.

Mental stress among university students had become a persistent public health issue in Malaysia and globally due to increasing academic, financial, and social pressures. Anxiety and stress-related disorders had risen among young adults in higher education, as reported by the World Health Organization. The prevalence of psychological distress among undergraduates, which adversely affected academic performance and well-being, had also been reported at both national and institutional levels in Malaysia [5]. Although psychological well-being and social support were well-established protective factors, their combined influence on mental stress had received limited empirical attention. Furthermore, while self-esteem had been identified as a potential moderator that could strengthen or weaken these relationships, its role remained underexplored in the Malaysian higher education context. This gap limited the development of targeted interventions that addressed both environmental and individual psychological resources. Therefore, a focused study was needed to address this gap among Malaysian university students.

Although considerable research had been conducted on mental stress among university students, several important gaps remained. First, most studies examined psychological well-being or social support independently, with limited evidence integrating both factors into a single model predicting mental stress [6]. Second, although self-esteem had been identified as an important psychological factor influencing stress responses, it had more frequently been examined as a mediator rather than a moderator, leaving its interaction effects insufficiently explored [7]. Third, most previous studies had been conducted in Western or broader Asian populations, with limited empirical evidence focusing specifically on Malaysian university students, who have unique cultural, academic, and social characteristics. These limitations highlighted the need for more context-specific evidence. Accordingly, this study addressed these gaps by examining self-esteem as a moderating variable in the relationships between

psychological well-being, social support, and mental stress among Malaysian university students.

This study aimed to investigate the effects of psychological well-being and social support on mental stress among university students in Malaysia and to determine whether these relationships were moderated by self-esteem. Specifically, the study examined the direct relationships between psychological well-being and mental stress, between social support and mental stress, and the moderating effect of self-esteem on these relationships. The study also sought to provide a more comprehensive understanding of how environmental factors (psychological well-being and social support) and individual psychological resources (self-esteem) interacted in predicting mental stress. The findings were expected to inform the development of more targeted mental health interventions and support services in Malaysian higher education institutions.

This study was important because it contributed to the existing body of knowledge on university students' mental health within the Malaysian higher education context. Recent studies had emphasized the importance of psychological well-being and social support in reducing stress and promoting mental health among undergraduates [8]. However, relatively few studies had investigated self-esteem as a moderating variable in these relationships, particularly in Southeast Asian populations. This study addressed this gap by providing empirical evidence on the interactive effects of psychological well-being, social support, and self-esteem on mental stress. Practically, the findings could assist university administrators, counsellors, and policymakers in designing more effective mental health initiatives that strengthened both external support systems and internal psychological resources. Ultimately, the findings were expected to guide the development of targeted interventions aimed at enhancing resilience, academic performance, and psychological well-being among university students in Malaysia.

2. Literature Review and Theory

2.1. Psychological Well-being.

Psychological well-being was generally understood as a multidimensional construct reflecting an individual's capacity to function effectively, cope with stress, and maintain positive psychological functioning. It encompassed elements such as self-determination, personal growth, purpose in life, and emotional regulation [9]. Among university students, psychological well-being was considered an important protective factor against the negative effects of academic stress and enhanced students' adaptive coping abilities. Recent empirical studies demonstrated a strong association between higher levels of psychological well-being and greater cognitive and emotional resilience, as well as lower levels of psychological stress, anxiety, and depressive symptoms among students [10]. In Malaysia, undergraduates' academic workload, social adjustment, and perceived life satisfaction were found to influence their psychological well-being. Furthermore, positive psychological functioning was associated with better academic performance and successful adjustment to university life.

2.2. *Social Support.*

Social support was defined as the perception or experience of being cared for, valued, and belonging to a supportive social network comprising family, friends, and significant others. It was widely recognised as an important protective factor that mitigated psychological distress and promoted mental health among university students. Previous studies indicated that higher levels of social support reduced perceived stress and enhanced coping strategies by providing emotional, informational, and instrumental assistance [11]. Perceived social support was negatively associated with anxiety and depression, while supportive social relationships helped alleviate academic and emotional stressors among students in Malaysian higher education institutions [12]. Social support was also associated with greater resilience and better adjustment to university life, particularly during transitional periods such as the first year of study. In addition, support from peers and family contributed to higher self-esteem and psychological well-being, which subsequently influenced students' stress levels.

2.3. *Self-Esteem.*

Self-esteem was defined as an individual's overall evaluation of their self-worth and competence, reflecting the extent to which individuals viewed themselves positively or negatively [13]. In higher education, self-esteem was regarded as an important psychological resource that influenced students' emotional stability, coping ability, and academic adjustment. Recent research showed that students with higher self-esteem were more likely to manage stress effectively, experience lower levels of anxiety, and demonstrate greater psychological resilience when facing academic and social challenges [14]. Within the Malaysian higher education context, higher self-esteem was associated with better mental health, lower mental stress, and greater confidence in academic performance and social interactions. Furthermore, self-esteem was positively associated with psychological well-being and social support, suggesting that it might strengthen or weaken the effects of these factors on mental health outcomes.

2.4. *Mental Stress.*

Mental stress was defined as a state of psychological strain resulting from environmental demands that exceeded an individual's coping capacity. Within the university context, mental stress was associated with factors such as academic workload, examination pressure, financial difficulties, and social adjustment. Growing evidence indicated that university students experienced high levels of stress, which adversely affected their emotional, cognitive, and academic functioning [15]. In Malaysia, university students were reported to experience moderate to high levels of stress, which were associated with inadequate coping strategies, heavy academic demands, and poor sleep quality [16]. Mental stress was also linked to anxiety and depression, making it a significant mental health concern in higher education settings. Furthermore, previous studies demonstrated that stress levels were influenced by both environmental factors, such as social support, and psychological factors, such as self-esteem. However, the complex interactions among these variables remained insufficiently understood, particularly within Malaysian universities, where cultural expectations and academic

competition could intensify students' stress experiences. Consequently, mental stress was examined as the primary dependent variable in this study.

2.5. Hypothesis Development.

Psychological well-being reflects an individual's ability to function effectively, maintain positive emotions, and cope with life's challenges. According to Stress and Coping Theory, individuals with higher psychological well-being possess stronger internal resources that enhance positive self-evaluation and confidence. Empirical studies have consistently reported that students with higher psychological well-being demonstrate greater self-esteem because they exhibit better emotional stability, resilience, and personal growth [17]. Similar findings have been reported among Malaysian university students, where psychological well-being was associated with more positive self-perceptions and greater confidence in managing academic and social demands [18]. However, evidence examining this relationship within Malaysian higher education remains limited. Therefore, the following hypothesis was proposed:

H1: Psychological well-being positively influences self-esteem among university students in Malaysia.

Social support represents the emotional, informational, and instrumental assistance received from family, friends, and significant others. Stress and Coping Theory suggests that supportive social relationships strengthen individuals' psychological resources and reinforce positive self-evaluations. Previous studies have shown that students receiving higher levels of social support tend to report greater self-esteem because encouragement and acceptance enhance feelings of competence and self-worth [19,20]. Although this relationship has been reported in various settings, empirical evidence among Malaysian university students remains limited. Therefore, the following hypothesis was proposed:

H2: Social support positively influences self-esteem among university students in Malaysia.

Psychological well-being is recognised as an important protective factor against mental stress because it enables individuals to regulate emotions, adapt to adversity, and maintain effective psychological functioning. Students with higher psychological well-being are generally more resilient and better equipped to cope with academic and personal challenges, thereby experiencing lower levels of stress [21]. Similar evidence has been reported among Malaysian undergraduates, where psychological well-being reduced the adverse effects of academic pressure and transition-related challenges [22]. However, this relationship has received limited attention within integrated psychosocial models in the Malaysian context. Therefore, the following hypothesis was proposed:

H3: Psychological well-being negatively influences mental stress among university students in Malaysia.

Social support has consistently been identified as a protective factor that buffers the negative effects of stress by providing emotional reassurance, practical assistance, and effective coping resources. Students who perceive greater support from family, peers, and lecturers generally report lower levels of mental stress because supportive relationships reduce feelings of

isolation and enhance coping capacity [23]. Previous studies conducted in Malaysia have similarly demonstrated that social support contributes to better psychological adjustment and lower psychological distress among university students [24]. Nevertheless, further evidence is needed to validate this relationship within a comprehensive theoretical model. Therefore, the following hypothesis was proposed:

H4: Social support negatively influences mental stress among university students in Malaysia.

Self-esteem represents an individual's overall evaluation of self-worth and serves as an important psychological resource in coping with stressful situations. Individuals with higher self-esteem are more likely to interpret stressful events as manageable, adopt adaptive coping strategies, and maintain emotional stability. Consequently, they experience lower levels of mental stress [25]. Previous studies conducted among Malaysian university students have also reported that higher self-esteem is associated with lower psychological distress and greater resilience in dealing with academic and social pressures [26]. However, empirical evidence examining this relationship within an integrated model remains limited. Therefore, the following hypothesis was proposed:

H5: Self-esteem negatively influences mental stress among university students in Malaysia.

2.6. *Theory: Stress and Coping Theory.*

The **Stress and Coping Theory** developed by Lazarus and Folkman provided the theoretical foundation for this study. The theory posits that psychological stress arises when individuals perceive that environmental demands exceed their available coping resources [27]. It highlights two key cognitive processes: primary appraisal, in which individuals evaluate whether an event is stressful, and secondary appraisal, in which they assess their ability to cope with the stressor. Based on these appraisals, individuals adopt coping strategies to manage stressful situations effectively. In the context of university students, academic demands, social adjustment, and personal challenges are appraised differently according to individual psychological resources. Psychological well-being facilitates positive appraisal and adaptive coping, while social support provides external resources that alleviate perceived stress [28]. Self-esteem enhances secondary appraisal by strengthening individuals' confidence in their ability to cope with challenges, thereby reducing mental stress. Consequently, the theory provides a suitable framework for explaining the relationships among psychological well-being, social support, self-esteem, and mental stress in the proposed research model.

2.9. *Research Methodology.*

This study adopted a positivist research paradigm and a deductive approach. As illustrated in Figure 1, a quantitative research design was employed to examine the effects of psychological well-being and social support on mental stress, with self-esteem serving as a moderating variable among university students in Malaysia. Data were collected using a structured questionnaire survey. The target population comprised students enrolled in Malaysian higher education institutions. As a complete sampling frame was unavailable, a non-probability convenience sampling technique was employed to recruit respondents who were willing and available to participate. Prior to data collection, the required sample size was determined using

G*Power analysis, which indicated a minimum sample of 222 respondents to achieve adequate statistical power for the proposed research model. Accordingly, the questionnaire was distributed online through Google Forms, social media platforms, and student groups. The questionnaire included a cover letter explaining the purpose of the study, assuring respondents of the confidentiality of their information, and emphasizing that participation was voluntary. Respondents were also informed that they could withdraw from the study at any time. After data collection, the responses were screened to ensure completeness and suitability for analysis. The data were subsequently analyzed using SPSS and SmartPLS to evaluate the measurement model and test the proposed hypotheses.

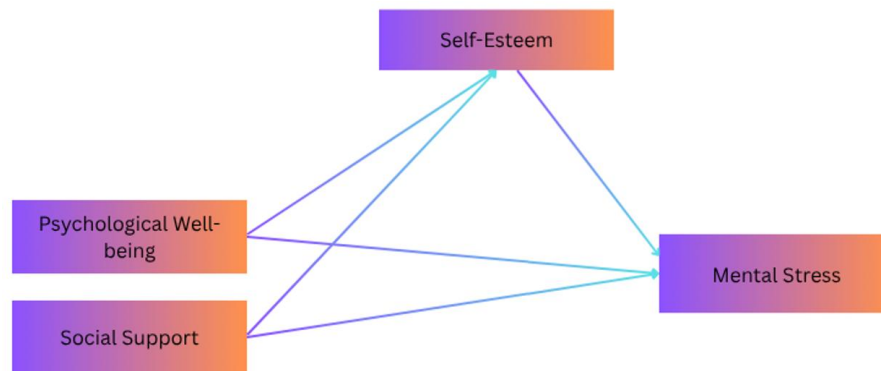


Figure 1. Research Framework.

3. Results and Discussion

3.1. Reliability and validity.

Table 1 presents the construct reliability and validity results. All constructs showed acceptable internal consistency, as Cronbach's alpha values ranged from 0.817 to 0.905, exceeding the recommended threshold of 0.70. The composite reliability values, including rho_a and rho_c, were also above 0.70, indicating good construct reliability. In addition, the AVE values ranged from 0.578 to 0.682, which were higher than the minimum acceptable value of 0.50, confirming convergent validity. Therefore, the measurement model demonstrated satisfactory reliability and convergent validity for Mental Stress, Psychological Well-being, Self-Esteem, and Social Support [29].

Table 1. Construct reliability and validity.

Construct	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
MS	0.878	0.896	0.910	0.669
PW	0.905	0.914	0.927	0.682
SE	0.817	0.837	0.872	0.578
SS	0.846	0.850	0.891	0.620

Table 2 shows the Heterotrait-Monotrait ratio (HTMT) results for discriminant validity. The HTMT values ranged from 0.375 to 0.733, which were below the recommended threshold of 0.85. This indicates that all constructs were distinct from one another and that discriminant validity was achieved. Therefore, Mental Stress, Psychological Well-being, Self-Esteem, and Social Support demonstrated satisfactory discriminant validity [29].

Table 2. Heterotrait-monotrait ratio (HTMT) – Matrix.

Construct	MS	PW	SE	SS
MS				
PW	0.411			
SE	0.701	0.375		
SS	0.733	0.459	0.519	

Table 3 presents the Fornell-Larcker criterion results for discriminant validity. The square root of AVE values for MS, PW, SE, and SS were 0.818, 0.826, 0.760, and 0.788, respectively, and each value was higher than its corresponding inter-construct correlations. This indicates that each construct shared more variance with its own indicators than with other constructs. Therefore, discriminant validity was established for all constructs [29].

Table 3. Discriminant Validity Assessment Using the Fornell–Larcker Criterion.

Construct	MS	PW	SE	SS
MS (Mental Stress)	0.818			
PW (Psychological Well-Being)	0.380	0.826		
SE (Self-Esteem)	0.618	0.329	0.760	
SS (Social Support)	0.659	0.403	0.441	0.788

Table 4 presents the R-square values for the endogenous constructs. The results show that psychological well-being, social support, and self-esteem explained 57.1% of the variance in mental stress, indicating moderate explanatory power. In addition, psychological well-being and social support explained 22.2% of the variance in self-esteem. The adjusted R-square values were 0.565 for mental stress and 0.215 for self-esteem, showing that the model had an acceptable level of predictive accuracy [29].

Table 4. Coefficient of Determination (R^2).

Construct	R^2	Adjusted R^2
Mental Stress (MS)	0.571	0.565
Self-Esteem (SE)	0.222	0.215

Table 5 presents the model fit results. The SRMR value was 0.077 for both the saturated and estimated models, which is below the recommended threshold of 0.08, indicating an acceptable model fit. The NFI value was 0.745, suggesting a moderate level of fit for the proposed model. Therefore, the overall model fit was considered acceptable for further structural model assessment [29, 30].

Table 5. Model Fit Indices.

Fit Index	Saturated Model	Estimated Model
SRMR	0.077	0.077
d_ ULS	1.373	1.373
d_ G	0.617	0.617
Chi-square (χ^2)	774.950	774.950
NFI	0.745	0.745

Table 6 presents the total effects among the study constructs. The results show that all hypothesized total effects were statistically significant. Psychological well-being had a significant positive effect on mental stress ($\beta = 0.136$, $t = 2.658$, $p = 0.008$) and self-esteem (β

= 0.181, $t = 3.017$, $p = 0.003$). Self-esteem also showed a significant positive effect on mental stress ($\beta = 0.395$, $t = 6.980$, $p < 0.001$). In addition, social support had the strongest significant effect on mental stress ($\beta = 0.604$, $t = 11.919$, $p < 0.001$) and also significantly influenced self-esteem ($\beta = 0.368$, $t = 6.906$, $p < 0.001$). Since all p -values were below 0.05, the results indicate that psychological well-being, social support, and self-esteem significantly contributed to mental stress among university students in Malaysia [29].

Table 6. Total Effects.

Path	Original Sample (β)	Sample Mean	Standard Deviation	t -Value	p -Value
PW $\rightarrow$ MS	0.136	0.139	0.051	2.658	0.008
PW $\rightarrow$ SE	0.181	0.181	0.060	3.017	0.003
SE $\rightarrow$ MS	0.395	0.397	0.057	6.980	<0.001
SS $\rightarrow$ MS	0.604	0.606	0.051	11.919	<0.001
SS $\rightarrow$ SE	0.368	0.374	0.053	6.906	<0.001

Table 7 presents the specific indirect effects of self-esteem in the relationship between social support, psychological well-being, and mental stress. The results show that self-esteem significantly mediated the relationship between social support and mental stress ($\beta = 0.145$, $t = 4.578$, $p < 0.001$). Similarly, self-esteem also significantly mediated the relationship between psychological well-being and mental stress ($\beta = 0.072$, $t = 2.500$, $p = 0.012$). Since both p -values were below 0.05, the findings indicate that self-esteem plays a significant mediating role in explaining how social support and psychological well-being influence mental stress among university students in Malaysia [29].

Table 7. Specific Indirect Effects.

Indirect Path	Original Sample (β)	Sample Mean	Standard Deviation	t -Value	p -Value
SS $\rightarrow$ SE $\rightarrow$ MS	0.145	0.149	0.032	4.578	<0.001
PW $\rightarrow$ SE $\rightarrow$ MS	0.072	0.073	0.029	2.500	0.012

3.2. Discussion.

The purpose of this study was to examine the effects of psychological well-being and social support on mental stress among university students in Malaysia, with self-esteem included as an important psychological factor. The findings showed that psychological well-being, social support, and self-esteem significantly influenced mental stress. This indicates that students' mental stress is shaped not only by their personal psychological condition but also by the support they receive from others. These findings are consistent with previous studies which stated that psychological well-being and social support are important factors in reducing stress among university students [24]. The results revealed that psychological well-being had a significant effect on both self-esteem and mental stress. This suggests that students with better psychological well-being are more likely to have stronger self-esteem and experience different levels of mental stress. Good psychological well-being may help students manage academic pressure, emotional difficulties, and social adjustment more effectively. This finding supports the Stress and Coping Theory, which explains that individuals with stronger internal resources are better able to cope with stressful situations [22].

Social support was also found to have a significant effect on self-esteem and mental stress. This means that support from family, friends, peers, and others plays an important role in students' emotional condition. Students who receive strong social support may feel more

valued, confident, and capable of dealing with academic and personal challenges. This finding is in line with previous research showing that social support improves psychological adjustment and reduces mental distress among university students [11]. Furthermore, self-esteem had a significant effect on mental stress. This shows that self-esteem is an important psychological resource for university students. Students with higher self-esteem may be more confident in handling academic demands and social pressures, which can influence their stress levels. The findings are consistent with previous studies that found self-esteem to be closely related to students' mental health and stress management [18]. The indirect effect results also showed that self-esteem significantly mediated the relationships between social support and mental stress, and between psychological well-being and mental stress. This means that psychological well-being and social support may influence mental stress through self-esteem. Therefore, improving students' self-esteem can strengthen the positive effects of psychological well-being and social support in managing mental stress. Overall, the findings highlight the importance of developing university mental health programs that focus on improving psychological well-being, strengthening social support systems, and enhancing students' self-esteem.

3.3. Theoretical and Practical Contributions.

This study provides several theoretical contributions. First, it extends the application of Stress and Coping Theory by showing that psychological well-being, social support, and self-esteem are important factors related to mental stress among university students in Malaysia. The findings support the view that students' stress is influenced by both internal psychological resources and external social resources. Second, this study contributes to the literature by examining psychological well-being and social support in one integrated model, which provides a clearer understanding of how these factors influence mental stress. Third, the significant indirect effects show that self-esteem plays an important role in explaining the relationship between psychological well-being, social support, and mental stress. This adds empirical evidence to the student mental health literature in the Malaysian higher education context. In terms of practical contributions, the findings provide useful guidance for universities, counsellors, and policymakers. Universities should design mental health programs that not only reduce stress but also strengthen students' psychological well-being and self-esteem. Counselling units can organize self-esteem development workshops, stress management training, and peer-support programs to help students cope with academic and personal challenges. In addition, lecturers and university administrators should encourage a supportive campus environment where students feel valued and socially connected. Strengthening family, peer, and institutional support may help reduce students' mental stress and improve their overall well-being. Therefore, this study offers practical insights for developing more effective student mental health interventions in Malaysian universities.

3.4. Limitations and Future Research.

Although this study provides useful findings, several limitations should be noted. First, this study used a quantitative cross-sectional design, meaning that data were collected at one point in time. Therefore, the findings cannot fully explain causal relationships between psychological well-being, social support, self-esteem, and mental stress. Future studies may use longitudinal

research designs to examine how these relationships change over time. Second, this study employed convenience sampling among university students in Malaysia. As a result, the findings may not be fully generalizable to all university students in different regions, institutions, or countries. Future research should use probability sampling and include students from public and private universities across different states in Malaysia to improve generalizability. Third, the data were collected using self-reported questionnaires. This may lead to response bias, as respondents may answer based on personal perception or social desirability. Future studies may combine survey data with interviews or focus groups to gain deeper understanding of students' mental stress experiences. Finally, this study focused only on psychological well-being, social support, and self-esteem. Future research may include other important variables such as academic pressure, financial stress, coping strategies, resilience, family background, and sleep quality. These additional factors may provide a more comprehensive understanding of mental stress among university students in Malaysia.

4. Conclusion

This study examined the effects of psychological well-being and social support on mental stress, with self-esteem as a mediating factor among university students in Malaysia. The findings showed that psychological well-being and social support significantly influenced self-esteem and mental stress. In addition, self-esteem had a significant effect on mental stress and also mediated the relationships between psychological well-being, social support, and mental stress. Overall, the results highlight that students' mental stress is influenced by both internal psychological resources and external social support. Students with better psychological well-being, stronger social support, and higher self-esteem are more likely to manage stress effectively. Therefore, universities should focus on improving students' psychological well-being, strengthening social support systems, and enhancing self-esteem through counselling services, peer-support programs, and mental health awareness activities. In conclusion, this study contributes to the understanding of mental stress among university students in Malaysia and provides useful insights for developing effective mental health interventions in higher education institutions.

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Author Contribution

H. M. Mahfuzur Rahman, Shereen Khan, and Md. Muslim Uddin Ahmed Pipul conceptualized the study. H. M. Mahfuzur Rahman, Chinnasamy Agamudai Nambi Malarvizhi, Adamu Abbas Adamu, and Shereen Khan conducted the literature review. The discussion was prepared by H. M. Mahfuzur Rahman, Chinnasamy Agamudai Nambi Malarvizhi, Md. Muslim Uddin Ahmed Pipul, and Shereen Khan, while the conclusion was developed by H. M. Mahfuzur Rahman, Md. Muslim Uddin Ahmed Pipul, Adamu Abbas Adamu, and Chinnasamy Agamudai Nambi Malarvizhi. H. M. Mahfuzur Rahman, Adamu Abbas Adamu, and Shereen Khan wrote the manuscript.

Competing Interest

Declare conflicts of interest or state: “The authors declare no conflicts of interest.”

Data Availability

The data that support the findings of this study are available from the corresponding author upon reasonable request.

References

- [1] Aw, J.X.; Mohamed, N.F.; Rahmatullah, B. (2023). The role of perceived social support on psychological well-being of university students during the COVID-19 pandemic. *Asia Pacific Journal of Health Management*, 18(1), 208–215. <https://doi.org/10.24083/apjhm.v18i1.1171>.
- [2] Naz, A.M.; Khan, S.; Manzoor, S.; Rehman, K.U.; Aslam, Z.; Noor, N. (2024). Relationship between resilience, social support and psychological well-being in nursing students. *Journal of Research in Nursing*, 29(8), 718–731. <https://doi.org/10.1177/17449871241278854>.
- [3] Zhou, K.; Ning, F.; Wang, X.; Wang, W.; Han, D.; Li, X. (2022). Perceived social support and coping style as mediators between resilience and health-related quality of life in women newly diagnosed with breast cancer: a cross-sectional study. *BMC Women's Health*, 22(1), 198. <https://doi.org/10.1186/s12905-022-01783-1>.
- [4] Ooi, H.X.; Hamzah, A.; Thien, L.M. (2023). The influence of social support on postgraduate students' psychological well-being: Self-esteem as a mediator. *Participatory Educational Research*, 10(3), 150–166. <https://doi.org/10.17275/per.23.49.10.3>.
- [5] Awang, S.; Agins, B.; Mohd Ujang, I.R.; Narayanan, D.N.; Zulkifli, N.W.; Hamidi, N. (2023). Development of the national policy for quality in healthcare for Malaysia. *Health Research Policy and Systems*, 21(1), 119. <https://doi.org/10.1186/s12961-023-01063-w>.
- [6] Acoba, E.F. (2024). Social support and mental health: the mediating role of perceived stress. *Frontiers in Psychology*, 15, 1330720. <https://doi.org/10.3389/fpsyg.2024.1330720>.
- [7] Zell, E.; Stockus, C.A. (2025). Social support and psychological adjustment: A quantitative synthesis of 60 meta-analyses. *American Psychologist*, 80(1), 33. <https://doi.org/10.1037/amp0001323>.
- [8] Ruihua, L.; Hassan, N.C.; Qiuxia, Z.; Sha, O.; Jingyi, D. (2025). A systematic review on the impact of social support on college students' wellbeing and mental health. *PLOS ONE*, 20(7), e0325212. <https://doi.org/10.1371/journal.pone.0325212>.
- [9] Frost, S.; Kannis-Dymand, L.; Schaffer, V.; Millea, P.; Allen, A.; Stallman, H.; Mason, J.; Wood, A.; Atkinson-Nolte, J. (2022). Virtual immersion in nature and psychological well-being: A systematic literature review. *Journal of Environmental Psychology*, 80, 101765. <https://doi.org/10.1016/j.jenvp.2022.101765>.
- [10] Merino, M.; Tornero-Aguilera, J.F.; Rubio-Zarapuz, A.; Villanueva-Tobaldo, C.V.; Martín-Rodríguez, A.; Clemente-Suárez, V.J. (2024). Body perceptions and psychological well-being: a review of the impact of social media and physical measurements on self-esteem and mental health with a focus on body image satisfaction and its relationship with cultural and gender factors. *Healthcare*, 12(14), 1396. <https://doi.org/10.3390/healthcare12141396>.
- [11] Knowles, E.A.; Danzi, B.A. (2025). The Role of Online Social Support in Mental Health: Comparing Rural and Urban Youth. *Children*, 12, 113. <https://doi.org/10.3390/children12020113>.
- [12] McLean, L.; Gaul, D.; Penco, R. (2023). Perceived social support and stress: A study of 1st year students in Ireland. *International Journal of Mental Health and Addiction*, 21(4), 2101–2121. <https://doi.org/10.1007/s11469-021-00710-z>.

- [13] Orth, U.; Robins, R.W. (2022). Is high self-esteem beneficial? Revisiting a classic question. *American Psychologist*, 77(1), 5. <https://doi.org/10.1037/amp0000922>.
- [14] Muris, P.; Otgaar, H. (2023). Self-esteem and self-compassion: A narrative review and meta-analysis on their links to psychological problems and well-being. *Psychology Research and Behavior Management*, 2961–2975. <https://doi.org/10.2147/PRBM.S402455>.
- [15] Sara, J.D.S.; Toya, T.; Ahmad, A.; Clark, M.M.; Gilliam, W.P.; Lerman, L.O.; Lerman, A. (2022). Mental stress and its effects on vascular health. *Mayo Clinic Proceedings*, 97(5), 951–990. <https://doi.org/10.1016/j.mayocp.2022.02.004>.
- [16] Masri, G.; Al-Shargie, F.; Tariq, U.; Almughairbi, F.; Babiloni, F.; Al-Nashash, H. (2023). Mental stress assessment in the workplace: a review. *IEEE Transactions on Affective Computing*, 15(3), 958–976. <https://doi.org/10.1109/TAFFC.2023.3312762>.
- [17] Cui, Z.; Lin, Z.; Ren, J.; Cao, Y.; Tian, X. (2024). Exploring self-esteem and personality traits as predictors of mental wellbeing among Chinese university students: the mediating and moderating role of resilience. *Frontiers in Psychology*, 15, 1308863. <https://doi.org/10.3389/fpsyg.2024.1308863>.
- [18] Veni, R.K.; Merlene, A.M. (2022). Self-perception and psychological well-being as determinants of classroom behavior of students with and without learning disability. *Journal of Indian Association for Child and Adolescent Mental Health*, 18(2), 158–166. <https://doi.org/10.1177/09731342221122840>.
- [19] Wu, S.; Liu, H.; Li, Y.; Teng, Y. (2024). The influence of self-esteem on sociocultural adaptation of college students of Hong Kong, Macao and Taiwan: the chain mediating role of social support and school belonging. *Psychology Research and Behavior Management*, 905–915. <https://doi.org/10.2147/PRBM.S445042>.
- [20] Saeed, K.M.; Ahmed, A.S.; Rahman, Z.M.; Sleman, N.A. (2023). How social support predicts academic achievement among secondary students with special needs: the mediating role of self-esteem. *Middle East Current Psychiatry*, 30(1), 46. <https://doi.org/10.1186/s43045-023-00316-2>.
- [21] Dong, S.; Ge, H.; Su, W.; Guan, W.; Li, X.; Liu, Y.; Ma, G. (2024). Enhancing psychological well-being in college students: the mediating role of perceived social support and resilience in coping styles. *BMC Psychology*, 12(1), 393. <https://doi.org/10.1186/s40359-024-01902-7>.
- [22] Moreno-Montero, E.; Ferradás, M.D.M.; Freire, C. (2024). Personal resources for psychological well-being in university students: The roles of psychological capital and coping strategies. *European Journal of Investigation in Health, Psychology and Education*, 14(10), 2686–2701. <https://doi.org/10.3390/ejihpe14100177>.
- [23] Islam, A.N.; Mäntymäki, M.; Laato, S.; Turel, O. (2022). Adverse consequences of emotional support seeking through social network sites in coping with stress from a global pandemic. *International Journal of Information Management*, 62, 102431. <https://doi.org/10.1016/j.ijinfomgt.2021.102431>.
- [24] Breitenstein, R.S.; Gagnon, S.G.; Webb, R.M.; Choquette, E.; Horn, I.; Bollinger, M.; Watson, M.M.; Honeycutt, K.; Gough, C.J.; Kidder-Ashley, P. (2025). Can Social Support Protect the Mental Health of College Students Who Experienced Bullying in High School? *Education Sciences*, 15, 388. <https://doi.org/10.3390/educsci15030388>.
- [25] Mouatsou, C.; Koutra, K. (2023). Emotion regulation in relation with resilience in emerging adults: The mediating role of self-esteem. *Current Psychology*, 42(1), 734–747. <https://doi.org/10.1007/s12144-021-01427-x>.
- [26] Loureiro, L.; Silva, A.; Pedreiro, A.T. (2026). Lifestyles, Self-Esteem and Mental Well-Being in Students Transitioning to Higher Education. *Healthcare*, 14, 799. <https://doi.org/10.3390/healthcare14060799>

- [27] Si, W.; Khan, N.A.; Ali, M.; Amin, M.W.; Pan, Q. (2023). Excessive enterprise social media usage and employee creativity: An application of the transactional theory of stress and coping. *Acta Psychologica*, 232, 103811. <https://doi.org/10.1016/j.actpsy.2022.103811>.
- [28] Wurtz, O. (2022). A transactional stress and coping perspective on expatriation: New insights on the roles of age, gender and expatriate type. *Journal of Global Mobility: The Home of Expatriate Management Research*, 10(3), 351–372. <https://doi.org/10.1108/JGM-10-2021-0086>.
- [29] Hair, J.F.; Risher, J.J.; Sarstedt, M.; Ringle, C.M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>.
- [30] Hu, L.T.; Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>.



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