Psychological Stress Coping Strategies as Predictors of Academic Passion among University Students

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Abstract

The present study aimed to examine the relationship between psychological stress coping strategies and academic passion, as well as to determine the extent to which these strategies contribute to predicting academic passion among university students. The sample consisted of 422 final-year students enrolled in the Faculties of Pharmacy, Science, and Education at Kafrelsheikh University. A descriptive research design was employed, and the study utilized two instruments: the Psychological Stress Coping Strategies Scale and the Academic Passion Scale.

The findings revealed statistically significant positive correlations at the 0.01 level between academic passion and several coping strategies, including problem-solving, emotional expression, wishful thinking, social support, cognitive restructuring, problem avoidance, and social withdrawal. In contrast, no statistically significant correlation was observed at the 0.01 level between academic passion and the strategy of self-criticism. Furthermore, the results indicated that students' scores on the Psychological Stress Coping Strategies Scale significantly predicted their levels of academic passion. Based on the findings of the present study, a set of recommendations was proposed, and avenues for future research were identified.

Keywords: academic passion, Psychological Stress Coping Strategies, University students

1. Introduction

The contemporary era, marked by rapid change and accelerated transformations, has exposed individuals to an increasing number of unfamiliar situations and events in their daily lives. Life's pressures and critical events constitute an inherent dimension of human existence, encompassing both its positive and negative aspects, from which no individual is entirely exempt (Gong et al., 2023; Pérez-Jorge et al., 2025). With the growing complexity of civilization and the fast-paced nature of modern life, these pressures have intensified in both quantity and severity (Pérez-Jorge et al., 2025; Alkhawaldeh et al., 2023). Stressors may seem to pose a threat to human well-being, yet not everyone experiences their impact equally. Evidence suggests that individuals who sustain higher levels of psychological security, physical and mental health, and resilience are less likely to develop psychological disorders, even when confronted with stressful life events (Gong et al., 2023; Ren et al., 2025).

The university phase in particular exposes students to numerous pressures, both personal and environmental. This stage imposes specific demands and challenges where failure to address them can lead to identity confusion. University students face various pressures, including academic challenges and stressful life circumstances, and being adults, they attempt to manage these pressures using diverse coping strategies (Alkhawaldeh et al., 2023; Pérez-Jorge et al., 2025; Ren et al., 2025). However, because students differ in how they perceive and approach problems, some succeed in managing stress effectively, while others struggle, depending largely on the coping strategies they employ (Alkhawaldeh et al., 2023; Gong et al., 2023).

Academic Passion (AP), a recent concept in positive psychology, represents a strong driver for learning, skill acquisition, and high performance (Delcourt, 2003; Gange, 2007). It comprises two forms: Harmonious Passion (HP), emerging from autonomy and alignment with personal interests, and Obsessive Passion (OP), driven by controlled and compulsive engagement (Vallerand, 2012, 2015). Harmonious passion fosters motivation, resilience, and effective performance, whereas obsessive passion may generate internal conflict and guilt (Curran et al., 2015; Vallerand, 2015). Passion can also be understood as a profound emotional attachment to valued activities, motivating behavior and enhancing cognitive engagement, which supports positive performance outcomes (Jachimowicz, Wihler, Bailey, &

Galinsky, 2018). In university students, AP is crucial for strengthening motivation, developing skills, and facilitating academic and personal growth.

1.1 Problem Statement

Academic passion among university students represents a critical area of inquiry, particularly in light of the current national emphasis on the widespread implementation of electronic testing systems. A comprehensive review of previous studies and relevant psychological literature indicates a notable gap: no prior research has investigated the relationship between academic passion and strategies for coping with psychological stress among university students.

Accordingly, the present study seeks to address the following research questions:

(1) What is the nature and strength of the correlation between academic passion and strategies for coping with psychological stress among university students?

(2) What is the relative contribution of strategies for coping with psychological stress in predicting academic passion among university students?

1.2 Objectives

The study aims to achieve the following objectives:

(1) To understand and interpret the nature of the relationship between academic passion and strategies for coping with psychological stress.

(2) To identify the relative contribution of psychological stress coping strategies in predicting academic passion among university students.

1.3 Significance

This study is significant both theoretically and practically. Theoretically, it highlights the importance of academic passion and psychological stress coping strategies in fostering students' intrinsic motivation, resilience, goal setting, and overall personal and academic development, particularly during the critical university phase. Practically, the findings can guide educators and institutions in designing curricula, programs, and support systems that enhance academic passion and effective coping strategies, improving academic performance, mental health, and students' personal growth while providing actionable guidance for tailored educational interventions.

1.4 Delimitations

The study is temporally and spatially delimited to the first semester of the 2023/2024 academic year and focuses on selected faculties at Kafrelsheikh University. It adopts a descriptive research methodology and involves a sample of 435 final-year students from the Faculties of Pharmacy, Science, and Education. Additionally, the study specifies the research instruments and statistical methods employed for data collection and analysis.

2. Theoretical Framework

2.1 Academic Passion

Academic passion refers to a strong emotional and motivational inclination toward activities that students value and dedicate effort to (Fredricks, Alfeld, & Eccles, 2010; Jachimowicz et al., 2018; Marsh et al., 2013; Vallerand et al., 2003). It is commonly divided into two types: harmonious passion, characterized by balanced and voluntary engagement associated with positive outcomes such as improved performance, skill development, and psychological and social adaptation, and obsessive passion, characterized by uncontrollable engagement often under internal or external pressures, which may lead to conflicts with other life domains and negative outcomes such as stress and guilt (Vallerand et al., 2003, 2015).

Academic passion is considered a key factor that positively influences students' academic performance, as it contributes to enhanced engagement and participation in educational activities, thereby leading to improved academic achievement (Sverdlik et al., 2022). Moreover, academic passion strengthens intrinsic motivation, encouraging students to invest greater effort in their studies and achieve their educational goals (Chen, 2024; Zhao, 2021). Academic passion significantly contributes to students' psychological well-being by lowering stress and anxiety levels, which in turn promotes overall mental health (Larionow, 2024). In addition, academic passion enhances students' sense of belonging to the educational institution, which improves the quality of academic life and enriches their university experience (Al-Desouki et al., 2024). Given its significant impact on students' performance and well-being, it is essential to identify strategies that effectively cultivate and sustain academic passion.

Research has shown that enhancing academic passion among university students positively influences their performance, engagement, and overall well-being (Chen & Zhao, 2024). Strategies to foster this passion include promoting autonomy by allowing students to select study topics, thereby enhancing intrinsic motivation and a sense of control (Ryan & Deci, 2000). Encouraging independent learning and research strengthens academic engagement and develops critical thinking skills (Zimmerman, 2002), while interactive teaching methods, such as active and problem-based learning, stimulate interest and enthusiasm for academic subjects (Prince, 2004). Furthermore, supportive educational environments that emphasize collaboration, creativity, and critical thinking foster curiosity and personal growth (Dweck, 2006), while the provision of psychological and social support, including counseling and academic advising, assists students in managing stress and maintaining their academic drive (Conley, Travers, & Bryant, 2013).

Recent studies further emphasize the value of academic passion in higher education (Izadpanah, 2023; Mudło-Głagolska, 2023; Shen, 2024; Sverdlik et al., 2022; Zayed, 2025). Izadpanah (2023) found that harmonious academic passion reduces academic burnout, whereas obsessive passion exacerbates it. Mudło-Głagolska (2023) and Sverdlik et al. (2022) identified functional patterns of academic passion associated with emotion regulation strategies, illustrating individual differences in coping with academic challenges. Shen (2024) reported that harmonious academic passion positively impacts academic achievement, while Zayed (2025) demonstrated that academic passion predicts academic engagement. These studies collectively underscore the multifaceted role of academic passion in shaping students' engagement, achievement, and overall academic experiences.

Several theoretical frameworks explain the mechanisms and dimensions of academic passion. According to Self-Determination Theory (Ryan & Deci, 2000; Wang et al., 2024), academic passion supports intrinsic motivation by fulfilling three basic psychological needs: competence, the need to feel effective and capable; autonomy, the need to have control over one's activities; and relatedness, the need to feel connected to others and experience meaningful social interactions. Educational environments that meet these needs can foster the development of harmonious passion among students. The Dualistic Model of Passion (Vallerand et al., 2003) distinguishes between harmonious and obsessive passion, highlighting that harmonious passion allows voluntary engagement and balance between academic and personal life, whereas obsessive passion involves excessive attachment to activities under internal or external pressures, potentially leading to neglect of other life areas, internal conflict, and stress. Conceptual Integration Theory (Dweck, 2006) emphasizes that aligning passion with personal identity promotes a healthy balance between academic and personal life, as passion acts as a driving force connecting different life domains, supporting personal growth, resilience, and long-term success.

Together, these theories provide a comprehensive understanding of academic passion, its types, and its effects on motivation, performance, and psychological well-being. They also offer guidance for designing educational environments that nurture academic passion and promote positive outcomes for both students and educators.

2.2 Psychological Stress Coping Strategies

Psychological stress coping strategies can be defined as the methods and techniques individuals use to deal with stressful situations and psychological difficulties to reduce their negative effects or manage them effectively. These strategies include adaptive behaviors, such as problem-solving, emotional expression, seeking social support, and cognitive restructuring, as well as maladaptive behaviors, such as self-criticism, problem avoidance, social withdrawal, and wishful thinking. They aim to enhance mental health, improve the ability to cope with daily stressors, and enable individuals to successfully face life challenges (García et al., 2007). Psychological stress is a common phenomenon among university students, significantly affecting various aspects of their lives. Studies indicate that stress impacts academic performance, mental and physical health, behaviors, and social relationships. Stress negatively affects academic performance by impairing concentration and memory, reducing students' ability to study effectively, and, in cases of chronic stress, leading to decreased academic achievement or even withdrawal from studies (Barbayannis et al., 2022).

Mental health plays a significant contextual role in this study. Although it is not the primary focus, prolonged exposure to stress can substantially affect students' psychological well-being, potentially influencing their academic passion, motivation, and overall quality of life (Pérez-Jorge, Boutaba-Alehyan, González-Contreras, & Pérez-Pérez, 2025; Vallerand, 2012). High stress levels may lead to difficulties in emotion regulation, increased risk of anxiety and depression, sleep disturbances, and other physical health problems, thereby indirectly impacting academic performance and engagement. Moreover, stress can lead some students to adopt unhealthy coping behaviors, such as substance abuse, overeating or extreme food restriction, and social withdrawal, further exacerbating stress and negatively affecting their well-being. Psychological stress may also strain social relationships with friends and family,

increasing isolation from support networks (Zhang, Meng, & Wen, 2025). Effectively managing psychological stress is therefore key to preserving students' mental and physical health and achieving academic success. Key strategies include engaging in regular physical exercise, practicing effective time management, building a strong social support network, and, in the learning context, applying active learning techniques, setting realistic academic goals, practicing mindfulness and relaxation before studying, breaking study sessions into manageable segments, and seeking academic support when needed. Implementing these strategies helps students mitigate the negative effects of stress, improve overall well-being, and enhance academic performance (Yang & Yang, 2022; Shapiro, Brown, & Biegel, 2023). Future research is encouraged to examine mental health as a central variable to better understand its mediating or moderating role in the relationship between stress, academic passion, and student outcomes.

Theoretical frameworks for understanding psychological stress coping strategies among university students offer helpful details about how individuals manage stress in higher education settings. One of the most influential models is the Stress Coping Theory developed by Folkman and Lazarus (1980), which distinguishes between two major types of coping strategies. The first is problem-focused coping, which targets the source of stress directly by finding solutions or altering the stressful situation. Examples include developing action plans, seeking resources, and implementing practical changes to eliminate or reduce the stressor. The second is emotion-focused coping, which concentrates on managing the emotional responses to stress rather than the stressor itself, involving practices such as relaxation, reframing, or seeking emotional support (Folkman & Lazarus, 1980).

Closely related to this perspective is the Cognitive Appraisal Theory proposed by Lazarus and Folkman (1984), which emphasizes the role of individuals' evaluations in shaping their coping responses. In this model, primary appraisal involves assessing whether an event is perceived as a threat, a challenge, or a source of harm, while secondary appraisal involves evaluating one's available resources and abilities to confront the situation. The interaction between these two processes determines which coping strategies individuals adopt and how effective they are at reducing stress (Lazarus & Folkman, 1984). The Social Support Theory articulated by Cohen and Wills (1985) highlights the buffering role of social networks in mitigating the negative effects of stress. Support from family, friends, teachers, and mentors can provide emotional comfort, practical assistance, and a sense of belonging. According to the buffering hypothesis, social support not only reduces the immediate psychological burden of stress but also enhances resilience in the long term (Cohen & Wills, 1985).

Finally, the Psychological Resilience Theory (Denckla et al., 2020; Southwick et al., 2014) focuses on the individual's capacity to adapt positively in the face of adversity. Resilience is shaped by factors such as optimism, social support, emotional regulation, and problem-solving skills, which enable individuals to recover from stressful experiences and maintain psychological well-being despite challenges (Southwick, Bonanno, Masten, Panter-Brick, & Yehuda, 2014). Together, these theories' stress on coping, cognitive appraisal, social support, and psychological resilience offer a comprehensive framework for understanding how students in higher education cope with psychological stress, highlighting both individual and contextual resources.

Psychological theories provide frameworks for understanding how students effectively cope with psychological stress. The Cognitive Appraisal Theory (Lazarus & Folkman, 1984) emphasizes the importance of evaluating stressors and available resources to determine the appropriate response, whether through problem-focused coping strategies, which aim to directly address the source of stress through planning, organization, and seeking support (Folkman & Lazarus, 1985), or through emotion-focused coping strategies, which focus on regulating emotions, positive reappraisal, and alleviating emotional distress. The Personal Resource Model (Hobfoll, 1989) highlights the role of optimism, psychological resilience, and social support in enhancing the ability to adapt to stress. Meanwhile, the Integrated Coping Model (Skinner, Edge, Altman, & Sherwood, 2003) calls for flexibility in combining different coping strategies according to the nature of the situation and individual context. Recent studies further support and expand these frameworks. For instance, Sun et al. (2024) found that cognitive appraisal and coping strategies mediate the relationship between emotional burden and psychological stress. Similarly, Ren et al. (2025) demonstrated that effective coping strategies, such as self-regulation and seeking social support, mitigate the negative impact of psychological stress on students' academic well-being.

Collectively, these models suggest that managing psychological stress is a complex process influenced by individual capacities and social support, requiring continuous evaluation and learning to develop more effective strategies for adapting to the challenges of university life.

2.3 Hypotheses

(1) There is a statistically significant positive correlation between academic passion and psychological stress coping strategies among university students.

(2) Students' scores on the Psychological Stress Coping Strategies scale can predict their scores on the Academic Passion Scale.

3. Methodology

The descriptive research approach was employed in this study, as it is considered the most suitable method for the objectives at hand. This approach emphasizes the systematic examination of existing events, phenomena, and research practices without any deliberate manipulation by the researcher. The researcher's role is limited to observing, describing, and analyzing these phenomena. By employing this method, the study is able to comprehensively describe and clarify the relationships among the study variables, analyze the collected data, and assess the degree of correlation between the variables under investigation.

3.1 Population and Sample

The study population consisted of 3,156 final-year students from the Faculties of Education, Science, and Pharmacy at Kafrelsheikh University, distributed as follows: 2,340 students from the Faculty of Education (744 males and 1,596 females), 330 students from the Faculty of Pharmacy (144 males and 186 females), and 486 students from the Faculty of Science (136 males and 350 females).

To evaluate the psychometric properties of the research instruments, a preliminary sample of 100 students was selected from the Faculties of Science and Education at Kafrelsheikh University. Participants' ages ranged from 20 to 21 years, with a mean age of 20.18 years (SD = ±0.482).

The main research sample comprised 422 final-year students from the Faculties of Pharmacy, Science, and Education, including 143 males and 279 females. Participants' ages ranged from 20 to 21 years, with a mean age of 20.14 years (SD = ±0.480). The data collected from this sample were used to test the study hypotheses.

3.2 Measurements

3.2.1 Academic Passion Scale

Vallerand et al. (2003) developed an instrument designed to measure the degree of passion that drives individuals toward activities they love, consider important, and invest their time and energy in. The instrument consists of 14 items, rated on a 7-point Likert scale ranging from (1 = strongly disagree) to (7 = strongly agree). It aims to identify two types of passion: harmonious passion, which reflects an autonomous internalization that allows the individual to engage in the activity freely and in balance with other life domains, and obsessive passion, which refers to a controlled internalization that creates internal pressure to engage in the activity excessively. Scores are obtained by calculating the mean for each dimension separately, with higher scores indicating a greater level of passion in that dimension. Multiple studies have demonstrated the instrument's validity and reliability across diverse participant samples.

For the purposes of the present study, the scale was translated into Arabic following established guidelines for adapting psychological instruments. The process involved forward translation, back-translation, and expert review to ensure semantic accuracy, clarity, and cultural appropriateness. The final Arabic version demonstrated linguistic validity and was deemed suitable for use in the Arab cultural context. The validity of the scale was then examined by calculating the correlations between each item score and the total scale score, excluding the contribution of the item itself. The results indicated that the item-total correlations ranged from 0.63 to 0.82, demonstrating strong positive relationships between each item and the overall scale score. These findings confirm the construct validity and internal consistency of the scale.

The reliability of the scale was assessed using Cronbach's alpha, which yielded a coefficient of 0.762. This value indicates a high level of internal consistency, confirming that the scale produces stable and dependable results when applied to university students. Combined with strong item-total correlations, these findings ensure that the scale can be confidently used to measure academic passion in similar student populations.

3.2.2 Psychological Stress Coping Strategies Scale

The Psychological Stress Coping Strategies Scale, originally developed by García et al. (2007) and translated by the current authors, is designed to identify stressful situations in individuals' daily lives and examine the strategies they use to cope with these stressors. Participants are asked to reflect on a stressful event they have experienced in the past month, which could include challenges related to family, school, work, or social relationships. The scale consists of 40 items, which are organized into eight distinct coping strategies as defined by the developers. Responses are rated on a 5-point scale ranging from 0 to 4, where 0 corresponds to "Never," 1 to "Sometimes," 2 to "Often," 3 to "Very Often," and 4 to "Always." The eight coping strategies assessed by the scale are as follows: Problem Solving (PS) includes items 1, 9, 17, 25, and 33; Self-Criticism (SC) includes items 2, 10, 18, 26, and 34; Expression of Emotions (EE) includes items 3, 11, 19, 27, and 35; Wishful Thinking (WT) includes items 4, 12, 20, 28, and 36; Social Support (SS) includes items 5, 13, 21, 29, and 37; Cognitive Restructuring (CR) includes items 6, 14, 22, 30, and 38; Problem Avoidance (PA) includes items 7, 15, 23, 31, and 39; and Social Withdrawal (SW) includes items 8, 16, 24, 32, and 40.

The current authors translated the Psychological Stress Coping Strategies Scale into Arabic using the back-translation method to ensure accuracy and equivalence of meaning. The translated version was then reviewed by a panel of experts in psychology and education, who confirmed the linguistic validity and cultural appropriateness of the scale for application in the Arab context. The construct validity of the scale was examined by calculating the correlations between the subscales and the overall score. The results showed strong positive correlations ranging from 0.62 to 0.84, which indicates high internal consistency and supports the construct validity of the scale. Reliability was further assessed using the standardization sample (N = 100) through two methods: the test-retest method and Cronbach's Alpha. The findings revealed high reliability coefficients across all coping strategies. Test-retest values ranged from 0.77 to 0.87, while Cronbach's Alpha values ranged from 0.74 to 0.80. Among the strategies, problem solving demonstrated the highest reliability (0.87 test-retest; 0.80 Cronbach's alpha), whereas social support and social withdrawal recorded slightly lower but still acceptable reliability scores (0.77–0.76). These results confirm that the scale demonstrates strong validity and reliability, making it a dependable tool for assessing coping strategies for psychological stress among university students.

3.3 Statistical Analysis

The data in the current study were analyzed using a set of appropriate statistical methods. Descriptive statistics, including means and standard deviations, were employed to summarize and describe the characteristics of the study variables, which included students' academic passion and psychological stress coping strategies. Pearson's correlation coefficient was used to examine the relationships among variables, while multiple regression analysis was conducted to identify predictive relationships between them. All data were processed and analyzed using the Statistical Package for the Social Sciences (SPSS), Version 24.

4. Results and Discussion

H1: There is a positive and statistically significant correlation between academic passion and psychological stress coping strategies among university students.

To examine this hypothesis, Pearson's correlation coefficient was calculated to assess the relationship between academic passion and coping strategies. The results of this analysis are presented in Table 1.

Table 1. Correlation Coefficients between Academic Passion and Psychological Stress Coping Strategies (N = 422 Students)

Psychological Stress Coping Strategies	Academic Passion
Problem-Solving Strategy	0.652 **
Self-Criticism Strategy	0.071
Emotional Expression Strategy	0.512 **
Wishful Thinking Strategy	0.498 **
Social Support Strategy	0.485 **
Cognitive Restructuring Strategy	0.434 **
Problem Avoidance Strategy	0.362 **
Social Withdrawal Strategy	0.376 **

(**) Significant at the 0.01 level.

The results presented in Table 1 indicate the existence of a positive and statistically significant correlation at the 0.01 level between academic passion and several coping strategies, namely problem-solving, emotional expression, wishful thinking, social support, cognitive restructuring, problem avoidance, and social withdrawal. In contrast, no statistically significant correlation was found between academic passion and the self-criticism strategy. Accordingly, the first hypothesis is considered partially supported.

These findings are consistent with prior research that established a link between academic passion and coping strategies. For instance, Sigmundsson, Haga, and Hermundsdottir (2020) demonstrated a positive relationship between academic passion and perseverance among university students. Similarly, the study by Peixoto, Pallini, Vallerand, Rahimi, and Silva (2021) highlighted a positive correlation between academic passion and life satisfaction.

The current results suggest that students with higher levels of academic passion are more inclined to adopt effective coping strategies when dealing with psychological stress. This relationship can be explained through several psychological and educational dimensions. First, self-motivation plays a pivotal role, as academic passion fosters intrinsic motivation, prompting students to engage actively in their studies and employ effective strategies, such as planning and organization, thereby reducing stress. Academic passion strengthens psychological resilience, empowering students to handle challenges more effectively and maintain a positive outlook under pressure. Third, passion contributes to goal setting and achievement, which mitigates stress and anxiety arising from uncertainty, while the resulting sense of accomplishment encourages constructive coping. Finally, academic support and supervision tend to be more accessible to passionate students, providing them with additional resources to manage academic pressures while safeguarding mental well-being and enhancing academic performance.

H2: Students' scores on the Psychological Stress Coping Strategies scale can predict their scores on the Academic Passion Scale.

To test this hypothesis, a stepwise multiple regression analysis was conducted to examine the extent to which scores on the Psychological Stress Coping Strategies Scale predict students' academic passion scores. The analysis was performed as follows:

Table 2. Stepwise Multiple Regression Variance Analysis for the Study Sample Scores (N=422) of the Dependent Variable

Dependent Variable	Source of Variation	Sum of Squares	Degrees of Freedom (df)	Mean Squares	F Value	Significance Level
Psychological Stress Coping Strategies	Regression	42,120.320	6	7,020.053	27.318	0.01
	Error	106,646.346	415	256.979		
	Total	219,805.549	421			

The results presented in Table 2 indicate that the F value for the regression coefficient is statistically significant, demonstrating that students' scores on the Psychological Stress Coping Strategies Scale can accurately predict their levels of academic passion. This finding confirms the robustness of the regression model and supports the predictive relationship between coping strategies and academic passion. Table 3 further presents the regression coefficients for each strategy, along with their relative contribution, highlighting the specific coping strategies that strongly influence academic passion among university students.

Table 3. Results of Multiple Regression Analysis for Academic Passion Scores Using Dimensions of Coping with Psychological Stress Strategies (n=422)

Independent Variables	Dependent Variable	Regression Coefficient B	Standard Error	Standardized Beta	t-value	Significance Level	Coefficient of Determination (R^2)
Constant	Academic Passion	28.912	3.752	–	7.705	0.01	0.492
Problem-Solving Strategy		0.974	0.242	0.146	4.025	0.01	
Self-Criticism Strategy		0.022	0.280	0.004	0.079	Not Significant	
Emotional Expression Strategy		0.588	0.182	0.074	3.231	0.01	
Wishful Thinking Strategy		0.948	0.270	0.200	3.511	0.001	
Social Support Strategy		0.676	0.201	0.073	3.363	0.01	
Cognitive Restructuring Strategy		0.778	0.272	0.101	2.860	0.01	
Problem Avoidance Strategy		0.278	0.108	0.032	2.574	0.01	
Social Withdrawal Strategy		0.296	0.092	0.009	3.083	0.01	

The results presented in Table 3 indicate that the coefficient of determination (R^2) is 0.492, suggesting that the dimensions of psychological stress coping strategies collectively account for approximately 49% of the variance in academic passion among university students. The F value for the regression model was 27.318, which is statistically significant at the 0.01 level. These findings indicate that coping strategies as a whole play a significant role in explaining students' academic passion. While the regression model shows a strong overall effect, not all individual coping strategies contributed significantly. In the current study, the self-criticism strategy was found to be statistically insignificant ($p > 0.05$). This non-significant finding can be interpreted as reflecting several factors. First, cultural context may play a role; in collectivist societies, self-criticism is often perceived as a form of self-improvement, which can alter its impact on coping outcomes (Luong, Arredondo, & Charles, 2020). Second, the measurement instruments may not have fully captured the nuanced aspects of self-criticism, limiting the ability to detect its effects (Zaccari et al., 2024). Third, intervening variables such as self-compassion and psychological flexibility may mediate the relationship between self-criticism and coping, thereby reducing its direct measurable effect (Wong, Fung, Wong, & Lam, 2025). These factors collectively indicate that the non-significant effect of self-criticism likely reflects complex interactions among cultural, methodological, and psychological variables rather than an absence of influence on academic passion.

Academic passion among university students = 28.912 + 0.974 (Problem-Solving Strategy) + 0.588 (Emotional Expression Strategy) + 0.948 (Wishful Thinking Strategy) + 0.676 (Social Support Strategy) + 0.778 (Cognitive Restructuring Strategy) + 0.278 (Problem Avoidance Strategy) + 0.296 (Social Withdrawal Strategy).

The results indicate that psychological stress coping strategies and achievement goal orientations play a significant role in explaining academic passion among university students. Specifically, strategies that emphasize problem-solving, social support, positive thinking, and wishful thinking are associated with higher levels of academic passion. In contrast, strategies characterized by fear of failure or avoidance tend to reduce academic passion.

5. Limitations

This study offers valuable insights, but it should acknowledge several limitations. First, the study employed a descriptive correlational design, which limits the ability to draw causal inferences between coping strategies and academic passion. Second, the sample was restricted to a specific group of students, potentially limiting the generalizability of the findings to broader academic populations. Third, data collection relied on self-report instruments, which may introduce response biases. Finally, other potentially influential factors, such as institutional environment or familial support, were not examined.

6. Conclusion

This study contributes to enriching the literature on academic motivation by highlighting the important role of coping strategies in shaping students' academic passion. The results revealed significant correlations between academic passion and several adaptive strategies, such as problem-solving, emotional expression, social support, and cognitive restructuring, while no significant correlation was found with self-criticism. Moreover, coping strategies were shown to be significant predictors of students' level of academic passion, underscoring their importance as psychological resources in the academic context.

These findings not only provide evidence for the value of effective coping strategies in enhancing passion for learning but also emphasize the need for universities to adopt programs and interventions aimed at strengthening these strategies among students. In light of these results, the study offers several practical recommendations and suggests directions for future research to explore more deeply the dynamic relationship between coping processes and academic passion.

7. Recommendations

Based on the findings of the study, several recommendations can be proposed to enhance academic passion and support effective coping with psychological stress among university students. First, universities should cultivate a supportive educational environment that minimizes stress during lectures, exams, and other academic activities, thereby fostering students' academic passion and improving their stress management. Encouraging students through recognition programs, awards, interactive activities, and participatory learning can further strengthen intrinsic motivation and engagement. Establishing or enhancing psychological and academic support centers, such as counseling and stress-management services, can provide guidance in overcoming challenges and developing effective coping strategies. Additionally, integrating workshops or training programs into the curriculum that focus on problem-solving, cognitive restructuring, and social support skills can increase students' resilience and engagement. Guiding students in setting realistic academic goals and monitoring their progress can help maintain motivation and productively channel academic passion. Finally, promoting constructive feedback, mentorship, and peer-support networks can reinforce both coping strategies and students' academic passion.

8. Proposed Studies

Future research could explore several avenues to deepen understanding of academic passion and stress-coping strategies among students. One area involves examining the relationship between coping strategies, academic passion, and achievement goals, particularly among high-performing students. Structural model analyses could be employed to investigate the interrelations between coping strategies, motivation, and academic passion using techniques such as structural equation modeling. Additionally, studies could explore how academic passion and coping strategies contribute to enhancing students' self-confidence and academic outcomes. Longitudinal and intervention-based research would provide insights into how academic passion and coping strategies evolve and the effectiveness of programs designed to strengthen them. Finally, cross-cultural studies and investigations within digital learning contexts could examine cultural differences and the impact of online learning environments on students' academic passion and coping strategies.

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