

Psychological Capital as a Predictor of Academic Stress and Academic Resilience among Postgraduate Students

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Abstract

In higher education institutions, postgraduate students experience various academic and psychological challenges that can influence their performance in academic settings and overall well-being. The present study examined how psychological capital predicts academic stress and academic resilience among postgraduate students. A convenient sample of 405 postgraduate students completed self-report measures of psychological capital, academic stress and academic resilience. Correlation analyses showed that psychological capital was negatively associated with academic stress and was positively associated with academic resilience. Academic stress and academic resilience were found to be negatively correlated, as expected. Multiple regression analyses revealed that psychological capital was a significant predictor of academic stress and academic resilience. These findings demonstrate the importance of developing psychological capital to foster resilience and reduce stress levels experienced by postgraduate students in academic settings. Implications of the findings to promote student well-being are discussed.

Keywords: Psychological capital, academic stress, academic resilience.

A crucial stage in academic growth, postgraduate education is marked by enhanced theoretical understanding, expertise, and learning centered on research. Postgraduate courses require more self-direction than their undergraduate learning, analytical thinking, and academic contributions through research presentations, thesis writing, and journal publications (Evans et al., 2018; Yuvayapan & Bilginer, 2020). Students are more vulnerable to academic pressure as a result of these increased academic-related expectations, career uncertainties, and performance demands (Stubb et al., 2012). However, some students differ in their capacity to deal with such stress, with some demonstrating adaptability, which highlights academic resilience. This indicates the importance of identifying psychological components that influence both academic stress and academic resilience. The current study is based on the framework of positive psychology, which highlights internal resources, well-being, and optimal functioning rather than weaknesses (Seligman & Csikszentmihalyi, 2014). Within this context, psychological capital has developed as a significant concept comprising four elements, such as hope, efficacy, resilience, and optimism (Luthans et al., 2007). These factors combine to represent a positive psychological state that enhances motivation, persistence, and productive coping. Individuals with higher psychological capital are more likely to cope with challenges positively, sustain goal-directed behavior, and overcome failures (Snyder et al., 2002). Psychological capital plays a crucial role in influencing students' academic experiences. Previous research findings show that

psychological capital is linked with improved academic performance, involvement, and decreased stress (Luthans et al., 2012). Students with strong hope and self-efficacy stay motivated toward goals, while resilience helps them to cope with academic challenges. Also, optimism helps in gaining positive expectations and effective coping tactics (Carver & Scheier, 2002).

Prior studies repeatedly highlight the key role of psychological capital, comprised of hope, efficacy, resilience, and optimism, that helps in improving academic achievement, participation, and well-being among students (Luthans et al., 2007). It encourages constructive adjustment, reduces exhaustion, and develops academic engagement and performance (Li & Hassan, 2023; Martinez et al., 2019). In contemporary learning environments such as e-learning, psychological capital further supports flexibility, involvement and, positive emotional experiences (Khoshaim, 2024), leading to academic adaptability and independent learning (Hazan & Miller, 2025). Academic stress is driven by numerous cognitive, emotional, and environmental components, including poor self-worth, negativity, poor emotional control, and environmental stressors such as academic demands and insufficient peer group support (Garcia-Martinez et al., 2021; Saleh et al., 2017). Modern education transformations, including e-learning and pandemic-related disturbances, have further heightened the stress levels (Wong Aitken et al., 2024).

Academic resilience represents students' capacity to adapt and flourish despite obstacles and is reinforced by motivation, emotional

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regulation, and supportive academic settings (Wang & King, 2025). It is also linked with better emotional wellness and reduced stress, although influenced by population-based and environmental factors (Delprato & Sandoval-Hernandez, 2025). Prior studies on psychological capital, academic stress, and academic resilience highlight certain research gaps. Most studies analyze the independent impacts of psychological capital on stress or resilience, requiring comprehensive frameworks (Luthans et al., 2012). Postgraduate students are disregarded despite specific hardships like research demands and occupational insecurity (Li & Hassan, 2023; Khoshaim, 2024). Research is Western / non-Indian focused, restricting the relevance to family expectations and competitiveness (Lin, 2020; Martinez et al., 2019). Direct psychological capital effects on both academic stress and academic resilience are underexplored, particularly in cross-sectional methods, beyond indirect contributors.

Due to evaluative pressures, overload, and employment stress, postgraduate students face more academic stress, which can greatly impact their well-being and academic success. However, some individuals with high resilience differ in responding to such stressors. Positive psychology emphasizes the importance of psychological capital encompassing hope, efficacy, optimism, and resilience that help in handling challenges. Students with higher psychological capital are more likely to adopt constructive coping skills and sustain through challenges. While previous research studies have analyzed academic stress and academic resilience separately, there is a lack of studies highlighting the role of psychological capital in this context, specifically among postgraduate students in Coimbatore. The present study aims to examine if psychological capital predicts academic stress and academic resilience.

Method

The present research study follows a cross-sectional, quantitative research design to examine how psychological capital predicts academic resilience and academic stress among postgraduate students.

Participants

A convenient sample of 405 students, 192 males and 213 females, aged between 20 and 27 years from different colleges in Coimbatore district, Tamil Nadu served as the sample for the present study.

Measures : Adult Hope Scale

This 12-item scale, developed by Snyder et al. (1991), measures a person's level of hope. The scale consists of two subscales, viz., agency thinking and pathways thinking. Each item is answered using an 8-point Likert-type scale ranging from Definitely False to Definitely True. High scores represent a high level of hope. The Reliability coefficients of Agency thinking, pathway thinking, and total Hope in the present sample are .64, .64, and .77, respectively.

General Self-efficacy Scale

This scale, developed by Schwarzer and Jerusalem (1995), is a 10-item self-report scale measuring self-efficacy. Each item is answered using a 4-point Likert-type scale ranging from Not at all true to definitely true. The total score is calculated by summing all items. High scores represent a high level of self-efficacy. The Reliability coefficient of the General Self-efficacy Scale on the present sample is .80

Bharathiar University Resilience Scale

The BURS scale (Anjana & Annalakshmi, 2025) is a 10-item scale that measures psychological resilience. Each item is answered using a 5-point Likert scale ranging from 1 (*Completely disagree*) to 5 (*Completely agree*). High scores represent a high level of resilience. The Reliability coefficient of Bharathiar University Resilience Scale on the present sample is .60

Life Orientation Test- Revised

This 6-item scale developed by Scheier et al. (1994), is a widely used measure of dispositional optimism, assessing individuals' generalized expectations about positive outcomes. All the items are rated on a 5-point Likert scale ranging from 0 (*Strongly disagree*) to 4 (*Strongly agree*). A high score indicates a high level of optimism. The Reliability coefficient of the Life Orientation Test- Revised in the present sample is .50

Academic Resilience Scale

The Academic Resilience Scale was developed by Cassidy (2016) is a 30-item scale. This scale is used to measure academic resilience. It is a 5-point Likert scale, ranging from 1 (*Strongly Agree*) to 5 (*Strongly Disagree*). The three subscales of the Academic Resilience Scale are perseverance, reflecting and adaptive help-seeking and negative affect and emotional response. A total score is achieved by summing scores for all 30 items, after reverse scoring where applicable. High scores indicate high Academic resilience. Reliability coefficient of perseverance, reflecting and help-seeking, negative affect and emotional response, and

academic resilience, respectively, in the present sample are .80, .84, .55, and .86, respectively.

Academic Stress Scale

The Academic Stress Scale was, developed by Kumar et al. (2024), assesses the level of academic stress or pressure that may be experienced by any student in an academic setting. The scale consists of 30 items. There are two subscales in this scale, namely exam stress and classroom stress. Exam stress consists of 14 items, and classroom stress consists of 16 items. Responses are acquired on 5-point Likert scale ranging from 0 (*Strongly disagree*) to 4 (*Strongly*

Data Analysis

Preliminary analysis included descriptive statistics computed for all study variables. The relationships among variables were analyzed using correlation analysis. The main analysis involved multiple linear regression to examine whether psychological capital predicts academic stress and academic resilience.

Results and Discussion

Descriptive statistics for all study variables, serving as an initial framework for evaluating data distribution before further analysis (Table 1).

Table 1 Descriptive Statistics of study variables (N=405)

Variables	N	M	SD	S.E.	Min.	Max.
Hope	405	46.70	8.51	.42	18	64
Agency	405	23.50	4.70	.23	8	32
Pathways	405	23.20	4.71	.23	8	32
Self-Efficacy	405	27.50	5.14	.26	12	40
Resilience	405	32.32	5.01	.25	18	46
Optimism	405	12.44	2.32	.12	6	20
Academic resilience	405	101.73	13.38	.67	75	144
Perseverance	405	48.61	7.41	.37	34	70
Reflecting and adaptive	405	32.26	5.80	.29	16	45
help-seeking						
Negative affect	405	20.85	3.59	.18	7	33
emotional response						
Academic stress	405	62.44	15.86	.79	0	120
Exam stress	405	30.58	8.51	.42	0	56
Classroom stress	405	31.86	9.09	.45	0	64

Note. M = Mean; SD = Standard Deviation; S.E. = Standard Error; Min = Minimum; Max = Maximum.

agree). Obtained scores range from 0 to 120. A high score indicates high academic stress. Reliability coefficients of exam stress, classroom stress, and the composite score of Academic Stress Scale in the present sample are .85, .85, and .90, respectively.

Procedure

An online survey was conducted using Google Forms to collect data from postgraduate students. The QR code was circulated among postgraduate students from various colleges in Coimbatore district, Tamil Nadu. Informed consent was obtained from the participants before data collection. Participation was completely voluntary, and the participants were duly informed about their right to decline and withdraw. The participants were assured that their data are completely confidential and will be used exclusively for academic purposes.

Table 2 shows the intercorrelations among the study variables, measuring the strength and direction of linear relationships between the study variables, such as psychological capital, academic stress, and academic resilience.

Table 3 presents the multiple linear regression analysis examining whether agency thinking, pathway thinking, self-efficacy, resilience, and optimism predict the overall academic stress. The overall model was significant, $F(5,399) = 10.67$, $p < .001$, explaining 12% of the variance in overall academic stress ($R^2 = .12$, adjusted $R^2 = .11$). Pathway thinking ($\beta = .23$, $p < .001$) significantly and positively predicts overall academic stress, whereas self-efficacy ($\beta = -.26$, $p < .001$), and optimism ($\beta = -.11$, $p < .05$), were significantly and negatively predict overall academic stress. Agency thinking ($\beta = -.11$, p

>.05) and resilience ($\beta = -.07$, $p >.05$), was not a significant predictor.

Table 4 represents the multiple linear regression analysis examining whether agency thinking,

Table 2 Intercorrelation of study variables (N=405)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
Agency Pathway	—	.63*	—										
Hope	.90*	.90**	—										
Self-Efficacy	.32*	.28**	.33*	—									
Resilience	.40*	.35**	.41*	.48*	—								
Optimism	.21*	.16**	.20*	.07	.08	—							
Perseverance	.45*	.45**	.50*	.36*	.51*	.22*	—						
Reflecting & Adaptive Help-Seeking	.48*	.45**	.51*	.30*	.45*	.17*	.74*	—					
Negative Affect & Emotional Response	.15*	-.01	.08	.24*	.28*	.19*	.22*	.06	—				
Overall academic Resilience	.50*	.45**	.52*	.40*	.55*	.24*	.93*	.86*	.42**	—			
Exam Stress	-.01	.11*	.05	-.23*	-.10	-.06	.00	.10	.38**	-.06	—		
Classroom Stress	-.16*	.03	-.10*	.27*	.21*	.15*	.33*	.18*	.51**	-.40*	.62**	—	
Overall academic Stress	-.10	.05	-.03	-.28*	-.17*	-.12*	-.19*	-.05	.50**	-.26*	.89**	.91**	—

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 3 Psychological Capital predicting overall Academic Stress

Model	Unstandardized Coefficients		Standardized Coefficients	t
	B	Std. Error	Beta	
Constant	91.85	6.49		14.16
Agency Pathway	-.36	.21	-.11	-1.68 ^{ns}
Self-efficacy	.77	.21	.23	3.72***
Resilience	-.81	.17	-.26	-4.86***
Optimism	-.23	.18	-.07	-1.28 ^{ns}
	-.73	.33	-.11	-2.21*

Note. $R^2 = .118$, $Adjusted R^2 = .107$, $F(5,399) = 10.67$, $p < .001$.

pathway thinking, self-efficacy, resilience, and optimism predict overall academic resilience. deal with educational demands and experience reduced stress. They perceive setbacks as

Table 4 Psychological Capital predicting overall Academic Resilience

Model	Unstandardized Coefficients		Standardized Coefficients	t
	B	Std. Error	Beta	
Constant	29.91	4.37		6.85
Agency	.56	.14	.20	3.87***
Pathway	.40	.14	.14	2.88**
Self-efficacy	.28	.11	.11	2.52**
Resilience	.97	.12	.36	8.04***
Optimism	.83	.22	.14	3.76***

Note. $R^2 = .438$, *Adjusted R*² = .431, $F(5,399) = 62.30$, $p < .001$.

The overall model was significant, $F(5,399) = 62.30$, $p < .001$, explaining 44% of the variance ($R^2 = .438$, adjusted $R^2 = .431$). Agency thinking ($\beta = .196$, $p < .001$), Pathway thinking ($\beta = .142$, $p < .01$), Self-efficacy ($\beta = .109$, $p < .01$) optimism, ($\beta = .144$, $p < .001$), and Resilience ($\beta = .362$, $p < .001$) were positively and significantly predicted the overall academic resilience.

The findings of present study demonstrate that agency thinking is not a significant predictor of overall academic stress; conversely, other studies have shown that overall hope, including agency thinking, strongly influences academic stress, indicating that students with higher agency thinking display variations in stress levels (Wapano, 2025). Students with high pathway thinking experience high academic stress. Limited studies directly support this finding. Cognitive theory explains that increasing the number of ideas or solutions can lead to an increased cognitive load due to excess pressure (Sweller, 1998). It may be noted that pathway thinking involves generating multiple ideas to reach the goals, potentially leading to greater stress in academic settings such as exams and classrooms. Self-efficacy significantly and negatively predicts academic stress. Individuals who have faith in their abilities experience lower stress, with the determination to handle academic challenges like presentations or exams. Earlier investigations support that students with high self-efficacy tend to experience low stress in academic settings (Rossanti & Mudhar, 2025). They boldly encounter the situations, trust their own abilities, manage academic expectations, feel less overwhelmed, and succeed well. Optimism significantly and negatively predicts academic stress. Students with higher optimism

manageable, tackle situations with a hopeful attitude, and manage academic challenges effectively. Resilience is not a significant predictor of academic stress, contrary to expectations. Further studies are needed to unravel the dynamics between resilience and academic stress.

We also found that agency thinking positively predicts academic resilience, suggesting that students who are highly motivated and goal-oriented tend to have high resilience in academic settings. Previous studies support that hope, including agency thinking and pathway thinking, significantly predicts better adaptive coping skills and promotes peace of mind. Therefore, students who are highly motivated and dedicated, experience greater academic resilience with enhanced coping strategies to adapt in academic contexts and handle challenges. Pathway thinking significantly and positively predicts overall academic resilience. Students who have strong pathway thinking can identify various methods to reach their goals, effortlessly surmount academic hurdles, and use different techniques to resolve problems within academic settings. Previous studies show that resilience is positively predicted by overall academic hope, which means individuals with high hope experience less burden from academic difficulties and stress (Snyder et al., 2002). Self-efficacy significantly and positively predicts academic resilience, suggesting that students who trust their own abilities and trust their determination show higher academic resilience, helping them to handle academic hurdles. Resilience significantly and positively predicts overall academic resilience, highlighting that more resilient individuals usually have effective coping strategies to get through academic hurdles

and hardships. Research findings suggest that coping styles of individuals often influence academic resilience (Tamannaieifer & Shahmirzaei, 2019). Resilient students remain completely committed to confronting any situation and utilize coping strategies to overcome difficulties and academic pressures. Furthermore, optimism significantly and positively predicts academic resilience, indicating that it makes students positive, looking forward to success, offering inherent survival mechanisms, driving the pursuit of success, and supporting them in managing academic challenges.

Conclusion

The findings of the present study suggest that psychological capital plays a vital role in impacting both academic stress and academic resilience among postgraduate students. The results suggest that different dimensions of psychological capital have diverse impacts on academic stress. While self-efficacy, optimism, and agency thinking help in lower certain factors of academic stress, pathway thinking was found to intensify stress due to higher cognitive demands. However, resilience did not show any significant effect on academic stress. In contrast, psychological capital has a powerful and positive impact on academic resilience that reinforces students' motivation, targeted effort, and adaptive management techniques, which are vital for sustaining resilience in rigorous academic contexts. Psychological capital allows the students to foster confidence in their skills, endure through hardships, and efficiently adapt to evolving academic expectations. At the same time, certain elements of psychological capital could additionally contribute to emotional fatigue due to increased effort and pursuit of goals. Ultimately, the current study underscores the importance of psychological capital as a crucial psychological strength in academic contexts. Academic institutions may strengthen learners by fostering psychological capital through formalized initiatives, training programs and, encouraging optimized learning climates.

The present study highlights the complexities of psychological capital connected to academic stress and academic resilience, supporting future research across diverse academic levels and cultures. It indicates the need to explore socio-demographic impacts and apply qualitative methods to understand students' routine struggles. Practically, academic environments should launch training and support systems to

strengthen psychological capital, improving survival skills and academic achievement. Policy measures must focus on psychological well-being and holistic development in higher education, building environments that foster psychological growth, initial support programs, and psychologically aware academic practices to enhance student resilience and enduring wellness.

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