VIETNAM JOURNAL OF EDUCATION, 2025
Volume 9, Issue 2, 284-298
https://doi.org/10.52296/vje.2025.688

ORIGINAL ARTICLE

A Scoping Review on Psychological Capital and Its Impact on Academic Outcomes

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Article history
Received: 24 October, 2024
Accepted: 24 June, 2025
Published: 30 June, 2025

Keywords
PsyCap, literature review, PsyCap's impacts, academic achievement, PsyCap as a mediator, direct predictor, occasional moderator

ABSTRACT
Psychological Capital (PsyCap) is an emerging construct in positive psychology that has garnered significant attention in organizational and academic contexts. While extensively studied in workplace settings, PsyCap's relevance in academic environments is increasingly recognized, as it influences students' motivation, engagement, and academic success. This literature review synthesizes the conceptual framework of PsyCap, its components, antecedents, and consequences, and examines its impact on academic outcomes through a review of related empirical studies. Studies in the Scopus database were searched, and a total of 16 studies were included in this review. Drawing on studies employing cross-sectional and longitudinal designs, the review highlights PsyCap's function as a mediator, direct predictor, and occasional moderator in linking psychosocial factors (e.g., teacher-student relationships, parent-child relationships, positive emotions, school climate, personality traits) to academic outcomes, typically measured by grade point average (GPA) or cumulative grade point average (CGPA). Grounded in theoretical frameworks such as Self-Determination Theory, Broaden-and-Build Theory, and Conservation of Resources Theory, the findings confirm PsyCap's capacity to translate supportive environments into enhanced performance while mitigating challenges like stress and burnout. Theoretical implications extend PsyCap frameworks to educational contexts, while practical recommendations advocate for PsyCap-focused interventions, supportive relationships, and positive school climates. Policy implications emphasize curriculum integration and teacher training. Future research should prioritize longitudinal designs, diverse samples, and multi-method approaches to enhance causal inferences and applicability, reinforcing PsyCap's transformative potential in optimizing student success.

1. INTRODUCTION

Defined as an individual's positive psychological state characterized by hope, self-efficacy, resilience, and optimism, psychological capital (PsyCap) has become an important construct in understanding and enhancing performance across various domains, including education (Luthans et al., 2007). The nature of PsyCap, originally

developed in organizational psychology to predict workplace outcomes, has prompted its application to academic settings, where it has increasingly driven student success (Luthans et al., 2010). PsyCap, in educational contexts, can boost academic achievement by enabling students to navigate challenges, leverage supportive relationships, and capitalize on positive psychological resources, thereby improving outcomes such as grade point average (GPA) or cumulative grade point average (CGPA).

Empirical studies in education have shown that PsyCap can act as a mediator and moderator in the relations between various psychosocial factors and academic performance (Gautam & Pradhan, 2018; Nambudiri et al., 2020). These factors include teacher-student or parent-child relationships, positive emotions, school climate, and personality traits. Several theoretical frameworks have been adapted. Grounded in theoretical frameworks like Self-Determination Theory (SDT), which emphasizes the role of basic psychological needs in motivation (Ryan & Deci, 2000), Broaden-and-Build Theory (B&B), which links positive emotions to resource accumulation (Fredrickson, 2001), and Conservation of Resources (COR) Theory (Hobfoll, 1989), which frames PsyCap as a protective resource against stress, these studies provide a robust conceptual foundation for understanding PsyCap's mechanisms. Additionally, Social Cognitive Theory (Bandura, 1997) and the Job Demands-Resources (JD-R) Model (Demerouti et al., 2001) further elucidate how PsyCap interacts with environmental and personal factors to enhance academic outcomes.

Despite its promise, the application of PsyCap in education is not without challenges. Existing research often relies on cross-sectional designs, self-reported data, and context-specific samples, limiting causal inferences and generalizability. Moreover, while PsyCap's mediating role is well-documented, its moderating effects and interactions with other psychological constructs, such as self-regulation and academic adjustment, remain underexplored. This systematic review aims to synthesize empirical studies on PsyCap's role in academic achievement, examining its direct, mediating, and moderating effects across diverse student populations. By analysing methodological approaches, theoretical underpinnings, findings, implications, and limitations, this review seeks to provide a comprehensive understanding of PsyCap's contributions to education, identify gaps in the literature, and propose directions for future research and practical interventions to optimize student success.

2. LITERATURE REVIEW

2.1. Concepts and Components of Psychological Capital

Luthans et al. (2015) define PsyCap as "*an individual's positive psychological state of development characterized by: (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success*" (p. 3). This multidimensional construct integrates four core components from positive psychology: self-efficacy, hope, optimism, and resilience, each contributing uniquely to an individual's psychological resources (Avey, 2014).

Self-Efficacy. Rooted in Bandura's (1977) social cognitive theory, self-efficacy refers to an individual's confidence in their ability to successfully perform tasks or meet challenges. In academic settings, self-efficacy is critical for students' persistence and performance. Parker (1998) extends this concept to general workplace and academic environments, measuring self-efficacy through indicators such as expanded activities and improved communication quality. Luthans et al. (2015) note that self-efficacy is the most theoretically and empirically supported component of PsyCap, with established measurement approaches based on mastery experiences, vicarious learning, social persuasion, and physiological arousal (Bandura, 1997).

Hope. Defined by Snyder et al. (1996) as a positive motivational state, hope encompasses two dimensions: agency (goal-directed determination) and pathways (planning to achieve goals). In academic contexts, hope drives students to set challenging goals, devise strategies, and adjust plans when faced with obstacles (Snyder, 2002). Empirical studies have linked hope to academic success, motivation, and proactive behaviours (Luthans et al., 2015; Peterson & Byron, 2008).

Optimism. Optimism involves positive expectations about future outcomes and the attribution of positive events to internal, stable, and pervasive causes, while attributing negative events to external, temporary, and specific factors (Seligman, 1998). In education, realistic optimism enhances students' ability to cope with academic challenges and

fosters positive academic outcomes (Luthans et al., 2007). Schneider (2001) emphasizes the need for realistic optimism to balance enthusiasm with practicality.

Resilience. Resilience is the capacity to recover from adversity, setbacks, or increased responsibilities (Luthans et al., 2015). In academic settings, resilience enables students to bounce back from failures, such as poor grades or challenging coursework, and even thrive under pressure (Masten, 2001). Factors influencing resilience include physiological, cognitive, and social resources, as well as adaptive processes and value systems (Coutu, 2002).

These four components synergistically form a higher-order core construct, enhancing individuals' psychological resources and contributing to positive organizational and academic behaviours (Luthans et al., 2015).

2.2. Measurement of psychological capital

PsyCap is measured using the Psychological Capital Questionnaire (PCQ), available in two versions: the original 24-item scale and a shortened 12-item scale. Both versions assess the four components (self-efficacy, hope, optimism, and resilience) using a 6-point Likert scale. The 24-item PCQ includes six items per component, while the 12-item version reduces each component to three items, maintaining reliability and validity (Luthans et al., 2015). The reflective first-order structure ensures that each component contributes to the overall PsyCap construct, making it a robust tool for research and practice.

2.3. Antecedents and consequences of psychological capital

Antecedents of PsyCap. While PsyCap has been extensively studied in organizational contexts, its antecedents remain underexplored (Avey, 2014). Wu and Nguyen (2019) identify two primary antecedents: leadership and perceived organizational support (POS). For leadership, leadership styles significantly influence PsyCap development. Authentic leadership, characterized by genuine concern for others, self-awareness, and value-driven actions, fosters positive psychological states in subordinates (Wu & Nguyen, 2019). Ethical leadership, which emphasizes fairness, honesty, and moral decision-making, also enhances PsyCap by creating a supportive environment. Conversely, abusive leadership, marked by hostile behaviours, undermines PsyCap, leading to negative emotions and reduced motivation. Vilarino del Castillo and Lopez-Zafra (2022) further categorize leadership styles influencing PsyCap, including transformational, humble, and empowering leadership, each contributing to employees' or students' psychological resources. As regards Perceived Organizational Support (POS), POS refers to employees' or students' perceptions that their organization values their contributions and cares about their well-being. High POS is positively associated with PsyCap, as it fosters positive emotions, confidence, and resilience (Wu & Nguyen, 2019). In academic settings, POS can translate to support from instructors, peers, or institutional resources, enhancing students' PsyCap.

Additional antecedents include individual differences (e.g., personality traits), job or academic task design, and demographic factors such as age, gender, and tenure (Avey, 2014). Organizational climate, including supportive and innovative environments, and psychological health factors (e.g., stress, well-being), also influence PsyCap development (Vilarino del Castillo & Lopez-Zafra, 2022). Job characteristics, such as autonomy and task significance, further shape PsyCap by affecting intrinsic motivation and self-efficacy (Hackman & Oldham, 1976).

Consequences of PsyCap. PsyCap has significant implications for individual and organizational outcomes. Wu and Nguyen (2019) highlight several consequences relevant to both workplace and academic settings: job/academic satisfaction, organizational/academic commitment, organizational citizenship behaviour, and work/academic attitudes. First, PsyCap is positively associated with satisfaction, as individuals with high PsyCap evaluate their tasks and environments more positively, leading to greater contentment (Wu & Nguyen, 2019). Second, PsyCap also fosters affective, continuance, and normative commitment, as individuals with high PsyCap align with organizational or academic goals and feel a sense of responsibility (Luthans et al., 2007). As regards organizational citizenship behaviour (OCB), PsyCap encourages discretionary behaviors that benefit the organization or academic community, such as helping peers or promoting the institution's reputation (Wu & Nguyen, 2019). Last but not least, higher PsyCap levels are associated with positive attitudes, including enthusiasm, engagement, and optimism, which enhance performance and persistence (Luthans et al., 2015). In academic contexts, these consequences translate to improved academic performance, engagement, and persistence, as students with high PsyCap are better equipped to handle challenges and maintain motivation.

Figure 1 visualizes the concepts of PsyCap and its antecedents as well as consequences synthesized in this section.

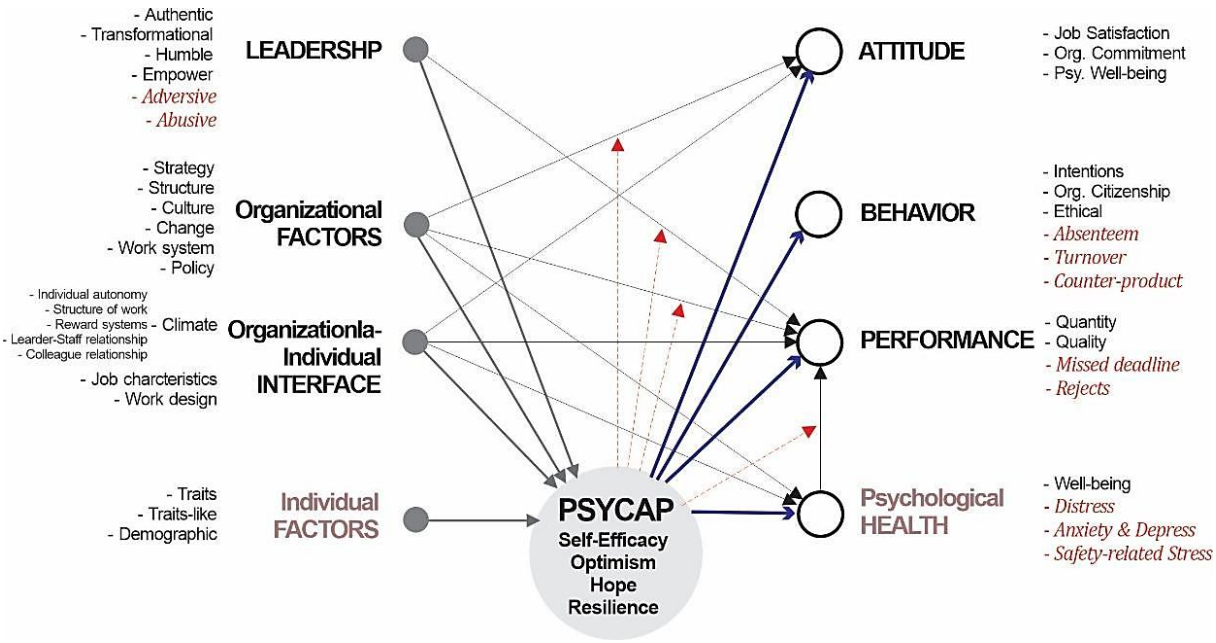

Figure 1. Theoretical framework for PsyCap

(Italics: NEGATIVE Antecedents or Consequences)

3. MATERIALS AND METHODS

This systematic literature review aims to synthesize and analyse existing research on the relationship between PsyCap and academic outcomes. The detailed search and selection process for the literature is outlined below.

Search Strategy. A search for scholarly articles in the Scopus database was conducted. The search terms, including both keywords and their variations, were: ("Psychological capital" or PsyCap) and ("academic achievement" or "academic success" or "academic outcome" or "academic performance"). These keywords were combined using the Boolean operator "AND" to ensure that all retrieved articles were relevant to both core concepts. Specifically, the applied search string was: ("Psychological capital" or PsyCap) AND ("academic achievement" or "academic success" or "academic outcome" or "academic performance"). To optimize the results, the search was limited to the article title and only included articles published in English from 2014 to June 2025.

Selection Criteria. The criteria for selecting literature included: (a) Document Type: Only original research articles and review articles directly relevant to the research topic were included, (b) Language: Only articles published in English, and (c) Timeframe: From 2014 to June 2025.

Screening and Selection Process. Following the initial search, the results were screened through the following steps: Step 1: Title and Abstract Screening: Articles were evaluated based on their titles and abstracts to determine initial relevance. Irrelevant articles or those not meeting the criteria were excluded; Step 2: Full-Text Review: Potential articles, after title and abstract screening, underwent a full-text review to assess their detailed suitability for the review's objectives; and Step 3: Synthesis and Duplicate Removal: The selected articles were compiled, and any duplicates were removed.

Search and Selection Results. Several searches were conducted to test the query. A total of 16 articles were returned. The result also returned a review titled "Psychological Capital Related to Academic Outcomes Among University Students: A Systematic Literature Review." This article was retained to summarize its findings due to its direct relevance to the paper's content, specifically its focus on university students. In total, 16 articles were retrieved related to the topic, including one previously published systematic review. This existing review will be used to compare and complement this study's findings and to identify potential research gaps.

4. RESULTS AND DISCUSSIONS

4.1. Summary of the studies' theory, context, design, and sample

Table 1. Summary of the reviewed studies' theory, context, design, and sample

No	Source	Theory	Context		Design	
			Level	Country	Waves	Cross.
1	Kirikkanat and Soyer (2018)	Non	uG	Turkey		400
2	Carmona-Halty, Schaufeli, and Salanova (2019)	SDT, COR	hS	Chile	771	
3	Carmona-Halty, Schaufeli, Llorens, et al. (2019)	SDT, COR	hS	Chile	407	
4	Carmona–Halty et al. (2019)	B&B, COR	hS	Chile	639	
5	Namburidi et al. (2020)	Non	pG	India		305
6	Adil et al. (2020)	Non	uS	Pakistan		300
7	Carmona-Halty et al. (2021)	B&B, COR	hS	Chile	497	
8	Saman and Wirawan (2021)	Non	hS	Indonesia		1670
9	Carmona-Halty et al. (2022)	SDT, COR	hS	Chile	402	
10	Hassan et al. (2023)	Non	uG	Pakistan		373
11	Carmona-Halty et al. (2024)	SDT, B&B, COR	hS	Chile	1054	
12	Muluneh and Bejji (2024)	Non	uG	Ethiopia		233
13	Tang (2024)	Non	sS	China		1267
14	Ma and Ooi (2025)	Non	pS	China		386
15	Meng and Chang (2025)	SCC	hS	China		719

Notes: *SDT: Self-Determination Theory, COR: Conservation of Resources Theory, B&B: Broaden–and–Build theory, SCC: Social Cultural Cognitive Theory, pS: Primary School, sS: Secondary School, hS: High School, uG: Undergraduate, pG: Postgraduate, Waves: Longitudinal 3 or 4 waves, Cross: Cross-sectional*

Predominant frameworks used in these studies are Self-Determination Theory (SDT), Broaden-and-Build Theory (B&B), Conservation of Resources (COR) Theory, as well as Attachment Theory and Social Cognitive Theory (Table 1).

These studies predominantly employ quantitative research designs to investigate the intricate relationships between PsyCap and various academic outcomes. While a significant majority of studies applies cross-sectional designs, gathering data at a single point in time to examine variable relationships (Adil et al., 2020; Carmona–Halty et al., 2019; Hassan et al., 2023; Meng & Chang, 2025; Ma & Ooi, 2025; Muluneh & Bejji, 2024; Nambudiri et al., 2020; Saman & Wirawan, 2021; Tang, 2024), four studies (Carmona-Halty et al., 2024; Carmona-Halty et al., 2022; Carmona-Halty, Schaufeli, Llorens, et al., 2019; Carmona-Halty, Schaufeli, & Salanova, 2019) adopt a longitudinal design.

The samples for these studies are composed of students from: junior high, high school, undergraduate, and postgraduate levels. The sample sizes vary considerably, ranging from 233 participants (Muluneh & Bejji, 2024) to 1,670 (Saman & Wirawan, 2021), with many studies falling within the 300–700 participant range. The research studies are geographically diverse, conducted in Asia (Pakistan, India, Indonesia, China), Africa (Ethiopia), Europe (Turkey), and South America (Chile). The researchers employ a variety of sampling techniques, including purposive sampling (Adil et al., 2020), voluntary participation (Nambudiri et al., 2020), convenience sampling (Meng & Chang,

2025; Hassan et al., 2023), systematic sampling (Ma & Ooi, 2025), stratified random sampling (Muluneh & Bejji, 2024), and proportional stratified sampling (Kirikkanat & 2018). Reported response and participation rates are generally high, often exceeding 90% (Meng & Chang, 2025; Ma & Ooi, 2025; Muluneh & Bejji, 2024).

4.2. Findings of the reviewed studies

The reviewed studies aim to investigate the role of PsyCap in student success. Most of the studies investigate the mediating and moderating roles of PsyCap between psychosocial factors and academic outcomes across various student populations. It is noted that a primary objective focuses on PsyCap's mediating influence, where it serves as a mechanism linking academic achievement (typically measured by CGPA or GPA) to factors such as teacher-student relationships (Carmona-Halty et al., 2022, 2024; Ma & Ooi, 2025), parent-child relationships (Carmona-Halty et al., 2022), positive emotions (Carmona-Halty et al., 2024; Carmona–Halty et al., 2019), satisfaction of basic psychological needs (Carmona-Halty, Schaufeli, Llorens, et al., 2019), and school climate (Tang, 2024). PsyCap was also examined as a mediator in the context of Big Five personality traits (Nambudiri et al., 2020), flow and self-handicapping behaviours (Adil et al., 2020), and teachers' transformational leadership (Meng & Chang, 2025). Several studies also explore PsyCap's moderating role, particularly in mitigating the impact of school-related stress on academic achievement and behaviour problems among students with health impairments (Muluneh & Bejji, 2024). Furthermore, the interplay between PsyCap and factors such as academic confidence, coping strategies (Kirikkanat & Soyer, 2018), perceived social support (Hassan et al., 2023), and procrastination moderated by conscientiousness (Saman & Wirawan, 2021) is examined to understand its impact on academic success.

Table 2. Synthesis of data analysis and findings of the review

No	Source	Variable				Analysis						Result
						PsyCap (construct)					Method	
		Cause	Mediator	Moderator	Effect	1st	1.5	2nd	items	dim.		
1	Kirikkanat and Soyer (2018)	PsyCap			Approach A.Str							+
		PsyCap			Social support A. Str		X		55	**4**	CB-SEM	+
		PsyCap			Avoidance A. Str							-
		PsyCap			GPA							+
2	Carmona-Halty, Schaufeli, and Salanova (2019)	Teacher-Student Relationship	PsyCap		GPA			X	12	PCQ*	CB-SEM	+ +
3	Carmona-Halty, Schaufeli, Llorens, et al. (2019)	Basic Psy. Needs	PsyCap		AP (Math, Lang, His, Sci)			X	12	APCQ	CB-SEM	+ +
4	Carmona–Halty et al. (2019)	Study-related positive emotion	PsyCap		AP (Math, Lang)		X		12	PCQ*	CB-SEM	+ +
5	Namburidi et al. (2020)	Openness to experience	PsyCap		CGPA	X			24	PCQ	Regression	+ +
		Conscientiousness	PsyCap									+ +
		Extraversion	PsyCap									**o** +
		Agreeableness	PsyCap									+ +
		Neuroticism	PsyCap									**o** +

No	Source	Variable				Analysis					Method	Result
						PsyCap (construct)						
		Cause	Mediator	Moderator	Effect	1st	1.5	2nd	items	dim.		
6	Adil et al. (2020)	PsyCap	Self-handicapping		CGPA	X			25	**4**	CB-SEM	- +
		PsyCap	Flow									+ +
		PsyCap										+ +
7	Carmona-Halty et al. (2021)	Study-related positive emotion	PsyCap		AP (Math, Lang)		X		12	PCQ*	CB-SEM	+ **o**
		PsyCap			Engagement							+
8	Saman and Wirawan (2021)	PsyCap	Procrastination		AP	X			12	PCQ	Regression	+ **o**
9	Carmona-Halty et al. (2022)	Parent-Child relation	PsyCap		AP (Math, Lang, His/Geo)			X	12	PCQ*	CB-SEM	+ +
10	Hassan et al. (2023)	PsyCap		Academic Adjustment	CGPA			X		PCQ	VB-SEM	**o** +
11	Carmona-Halty et al. (2024)	TS Relationship	PsyCap		AP (Math, Lang, His, Sci)		X		5		WLSMV-SEM	+ +
		Study-related positive emotion	PsyCap									+ +
12	Muluneh and Bejji (2024)	PsyCap			GPA			X	24	PCQ	CB-SEM	+
		PsyCap			Behavior Problems							-
13	Tang (2024)	School Climate	PsyCap		Academic Burnout		X		26	PPQ	CBSEM	+ -
14	Ma and Ooi (2025)	School satisfaction	PsyCap		GPA=Mean (Math, Chinese, English)		X		26	PPQ*	CB-SEM	+ +
15	Meng and Chang (2025)	Transformational Leadership	PsyCap		AA	X			26	**4**	Regression	+ +

AP: Academic Performance, AA: Academic Achievement, A. Str: Academic Strategies, APCQ: Academic Psychological Capital Questionnaire, (Martínez et al., 2019), PCQ: Psychological Capital Questionnaire (Avey et al. 2011), PCQ: Psychological Capital Questionnaire Luthans et al. (2007), PPQ: Zhang et al. (2010), PPQ*: Kuo et al. (2010),1st: First-order construct, 2nd: Second-order construct, 1.5: First-order construct--> single item. Result: (+/-/0): positive, negative, rejected; first one: cause-effect, second: mediating/moderating*

Direct effects of psychological capital on academic achievement and related constructs

The review reports a direct and positive influence of PsyCap on various academic outcomes. Academic PsyCap is found to significantly predict students' CGPA (Adil et al., 2020; Kirikkanat & Soyer, 2018; Ma & Ooi, 2025; Muluneh & Bejji, 2024). For example, Muluneh and Bejji (2024) observed a strong positive association between PsyCap and academic achievement (β=0.49, p<.001). The consistent findings from Carmona-Halty et al. across multiple studies (2024, 2022, 2019, 2019, 2019) further solidify this direct link, showing that PsyCap, either academic or general, positively influenced academic performance (GPA) with β values ranging from 0.241 to 0.433 (all p<.001). Beyond direct achievement, PsyCap also exhibits a positive prediction of adaptive academic behaviours such as flow (Adil et al., 2020; β=.48, p=.030) and a negative prediction of maladaptive behaviours like self-handicapping (Adil et al., 2020; β=−.13, p=.048) and procrastination (Saman & Wirawan, 2021; β=−.32, p<.001). Muluneh and Bejji (2024) additionally note a negative association between PsyCap and behavioural problems (β=−0.50, p<.001), emphasizing its broader beneficial role in student well-being.

PsyCap as a mediator of academic outcomes

A commonly observed finding across these studies is the mediating role of PsyCap in the relationship between various antecedents and academic performance. Regarding internal processes, flow (β=.05, p=.026) and self-handicapping (β=.05, p=.022) serve as mediators in the PsyCap-CGPA relationship, respectively enhancing and diminishing academic achievement (Adil et al., 2020). As regards personality traits, PsyCap fully mediates the effects of openness (β=.0833, p=.0061), extraversion (β=.073, p=.0071), and agreeableness (β=.052, p=.0148) on academic achievement as reported by Nambudiri et al. (2020). However, PsyCap does not mediate the conscientiousness-academic achievement relationship, and neuroticism-academic achievement shows a competitive mediation.

Furthermore, PsyCap consistently mediates the influence of external support and relationships on academic outcomes. Ma and Ooi (2025) highlight PsyCap's mediating role in the connection between social support (indirect SE=.106), teacher support (indirect SE=.163), and teacher-student relationships (indirect SE=.151) and academic achievement, noting that teacher-related support exhibited stronger mediated effects via PsyCap. Carmona-Halty et al. (2022) establish that PsyCap fully mediates the link between positive parent-child relationships and academic performance (β=0.156, p<0.001). Meng and Chang (2025) further show that both PsyCap (β=.237, p<.001) and self-regulation (β=.150, p<.001) mediate the positive impact of teacher transformational leadership on academic achievement. The influence of basic psychological needs on academic performance is also fully mediated by PsyCap, as found by Carmona-Halty, Schaufeli, Llorens, et al. (2019) (β=0.174, p=0.008). In the realm of positive emotions and engagement, Carmona-Halty et al. (2021) demonstrate a full sequential mediation where positive emotions influence academic performance through PsyCap and academic engagement (β=0.12, p<0.05), with Carmona–Halty et al. (2019) further confirming full mediation by PsyCap between positive emotions and academic performance (β=0.25, p<0.001). Lastly, Tang (2024) reported that PsyCap partially mediates the negative correlation between school climate and academic burnout, with a positive pathway from school climate to PsyCap and a negative pathway from PsyCap to burnout.

PsyCap as a moderator and protective factor

The reviewed studies also show that PsyCap can be a moderator in certain academic settings, demonstrating its capacity to influence the strength or direction of relationships between other variables. Muluneh and Bejji (2024) claim that high PsyCap significantly mitigates the negative impact of school-related stress on both academic achievement and behavioural problems. Focusing on students with health impairments, the study reveals that high PsyCap could effectively buffer the detrimental effects of stress on their academic performance and overall well-being, serving as a protective factor. Another insight from Meng and Chang (2025) is that conscientiousness moderates the PsyCap-academic achievement relationship (β=.106, p<.001). This suggests that coping strategies can influence how PsyCap translates into academic success. However, it is worth noting that Saman and Wirawan (2021) do not find evidence for conscientiousness moderating the PsyCap-procrastination relationship in their employee sample.

Relationships with other academic-related factors

The studies also shed light on other important interrelationships among various academic-related factors: academic confidence (Kirikkanat & Soyer, 2018), academic adjustment (Hassan et al., 2023), procrastination (Saman & Wirawan, 2021). Kirikkanat and Soyer (2018) conclude that both academic confidence and PsyCap directly predict academic success, and academic confidence and PsyCap positively influence adaptive coping strategies (approach and social support) and negatively predict maladaptive avoidance coping. Hassan et al. (2023) emphasize that PsyCap has a positive effect on academic adjustment, which, in turn, positively impacts academic success. Regarding procrastination, in their student sample, Saman and Wirawan (2021) reveal that PsyCap negatively predicts procrastination, and this effect is more pronounced among those with low conscientiousness. For employees, PsyCap similarly negatively predicts procrastination and positively predicts performance, with procrastination partially mediating the PsyCap-performance relationships.

In summary, these studies strongly emphasize that PsyCap plays a key and varied role in promoting academic achievement and well-being among students at different levels and contexts. It can be a direct driver of achievement and an important psychological construct, translating the benefits of positive personal traits, supportive environments, and adaptive behaviours into enhanced academic success, while also functioning as a resilience factor against academic challenges (Figure 2). Therefore, based on these empirical findings, it is necessary to implement

interventions and educational practices that nurture students' PsyCap, which will, in turn, enhance their overall academic trajectories.

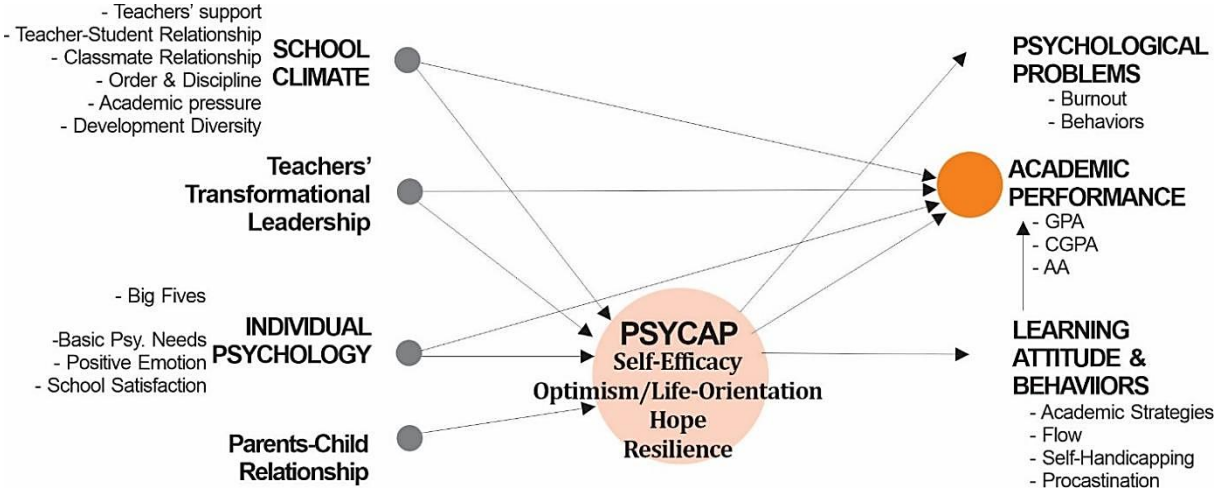

Figure 2. The results of the review on the impacts of PsyCap

4.3. Implications synthesized from the reviewed studies

The review on PsyCap offers a framework for advancing educational psychology through theoretical, practical, and policy implications. These implications emphasize PsyCap's role as a crucial resource that enhances academic achievement, mitigates negative behaviours, and supports diverse student populations. By integrating PsyCap-focused interventions, fostering supportive relationships, and implementing systemic policy changes, educational institutions can optimize student outcomes and well-being (Table 3).

These studies significantly advance psychological theory by extending several frameworks to educational contexts. Self-Determination Theory (SDT) and Conservation of Resources (COR) Theory are reinforced, as research by Carmona-Halty et al. (2019, 2019, 2022, 2024) consistently links basic psychological needs satisfaction, teacher-student relationships, and parental influence to the development of PsyCap, positioning it as a key resource for academic success and burnout reduction. Broaden-and-Build (B&B) Theory gains further empirical support, as evidenced in studies by Carmona-Halty et al. (2019, 2021, 2024) and Nambudiri et al. (2020). The Job Demands-Resources (JD-R) Model is successfully adapted to education, demonstrating PsyCap's role in helping students manage academic demands like stress and procrastination (Adil et al., 2020; Saman & Wirawan, 2021). Social Cognitive Theory is also enriched in these studies to confirm PsyCap as a mediator of transformational leadership and personality on achievement (Meng & Chang, 2025; Nambudiri et al., 2020). Finally, Transactional Stress Theory is validated, as Muluneh and Bejji (2024) confirm PsyCap's moderating role in stress-academic outcome relationships. These findings again reinforce our understanding of a solid theoretical foundation for understanding PsyCap's powerful roles in mediating and moderating various variables in education.

The studies also offer strategies to enhance student PsyCap and improve academic outcomes. Developing PsyCap directly is important through interventions like mental health courses, resilience workshops, and strength-based parenting programs. These will aim at fostering performance and reducing self-handicapping and burnout (Adil et al., 2020; Carmona-Halty et al., 2021, 2022; Meng & Chang, 2025; Ma & Ooi, 2025). Another crucial implication is to boost supportive relationships, which could include training teachers in positive reinforcement and autonomy support to build strong teacher-student relationships (Carmona-Halty et al., 2024; Ma & Ooi, 2025) and implementing family-based interventions to strengthen parent-child connections (Carmona-Halty et al., 2022). Creating positive school climates with fair rules, strong teacher-student interactions, and basic psychological needs satisfaction is also vital to enhance PsyCap and reduce burnout (Tang, 2024; Ma & Ooi, 2025). Finally, addressing specific challenges through time management training for procrastination (Saman & Wirawan, 2021) and stress management and online PsyCap training for students with health impairments (Muluneh & Bejji, 2024) is recommended. These interventions aim to support diverse student needs at individual, classroom, and institutional levels.

Table 3. Implications drawn from the studies reviewed

Study	Theoretical Implications	Practical Implications	Policy Implications
Adil et al. (2020)	Extends the JD-R model to education	PsyCap training, promotes flow, reduces self-handicapping	Foster PsyCap, minimize self-handicapping
Nambudiri et al. (2020)	Confirms B&B, PsyCap mediation	Peer mentoring, academic counselling	Foster positive psychological states
Saman and Wirawan (2021)	Supports JD-R, Self-Regulation theories	Hope/efficacy training, address procrastination	Enhance PsyCap, reduce counterproductive behaviours
Meng and Chang (2025)	Extends Social Cognitive Theory	PsyCap/SR training, promotes Transformational Leadership	Foster TL, support PsyCap/SR
Ma and Ooi (2025)	Extends Luthans' framework to primary education	Enhance SS/TS/TSR, PsyCap workshops	Promote supportive school climates
Muluneh and Bejji (2024)	Validates transactional stress, social-cognitive theories	Stress management, PsyCap training for SWHIs	Integrate stress prevention, PsyCap for SWHIs
Kirikkanat and Soyer (2018)	Highlights non-cognitive factors	Group counselling, foster coping strategies	Support non-cognitive skill development
Hassan et al. (2023)	Confirms academic adjustment	Social support, academic skills training	Prioritize academic skill resources
Carmona-Halty et al. (2024)	Integrates SDT, B&B, COR	Train teachers for TSR, promote SPE/APC	Implement PPIs, consider teacher well-being
Tang (2024)	Enriches school climate-PsyCap model	Supportive climates, mental health counselling	Balanced policies, mental health programs
Carmona-Halty et al. (2022)	Supports SDT, COR, parents as PsyCap antecedents	Strength-based parenting, PsyCap interventions	Foster family-school collaboration
Carmona-Halty et al. (2021)	Confirms B&B, COR, sequential mediation	Foster positive emotions, PsyCap interventions	Support autonomy, engagement
Carmona-Halty, Schaufeli, Llorens, et al. (2019)	Supports SDT, COR, BPN-PsyCap link	Foster BPN, PsyCap interventions	Shift to nurturing curricula
Carmona–Halty et al. (2019)	Supports B&B, COR, hope's role	Foster positive emotions, PsyCap interventions	Promote emotional classroom climates
Carmona-Halty, Schaufeli and Salanova (2019)	Supports SDT, COR, TSR-PsyCap link	Supportive TSR, PsyCap interventions	Foster positive school environments

The policy implications derived from these studies call for systemic changes to integrate PsyCap development into educational frameworks. A key recommendation is curriculum and program integration, urging institutions to embed PsyCap, resilience, and mental health programs within curricula, while also supporting the development of non-cognitive skills (Adil et al., 2020; Muluneh & Bejji, 2024; Meng & Chang, 2025; Kirikkanat & Soyer, 2018). Teacher training and well-being are also crucial, with policies proposed to equip teachers with transformational leadership and emotional support skills, and to manage their workload to reduce stress (Carmona-Halty et al., 2024;

Ma & Ooi, 2025; Tang, 2024). Furthermore, equity for vulnerable populations, such as students with health impairments, requires tailored policies for stress management and PsyCap programs (Muluneh & Bejji, 2024). Finally, institutional resources should be allocated to enhance academic skill development, counselling services, and support students' transition to the workplace by fostering PsyCap and addressing procrastination (Hassan et al., 2023; Nambudiri et al., 2020; Saman & Wirawan, 2021). These policies aim to create supportive, resource-rich educational systems that prioritize psychological well-being and academic success.

4.4. Synthesized limitations and future research

Table 4 displays the synthesis of limitations acknowledged in these studies and suggestions for future research on this topic. The limitations of PsyCap studies include cross-sectional designs, self-reported data, and context-specific samples, highlighting the need for methodological improvements to enhance rigor and generalizability. Future research should prioritize longitudinal and experimental designs, diverse samples, multi-method approaches, and the exploration of new variables and contexts. These directions will strengthen the evidence base for PsyCap's role in academic achievement, supporting the development of effective interventions and policies to optimize student outcomes across diverse educational settings.

Table 4. Synthesis of limitations and suggestions for future research

Study	Limitations	Future Research Directions
Adil et al. (2020)	Cross-sectional, self-reports, single university, no control for extraneous variables, superordinate PsyCap	Longitudinal designs, multi-method, diverse samples, control situational factors, PsyCap facets, other constructs (e.g., wisdom)
Nambudiri et al. (2020)	Cross-sectional, single B-school, self-reports	Longitudinal designs, diverse contexts (e.g., STEM), intervention studies, boundary conditions for neuroticism
Saman and Wirawan (2021)	Cross-sectional, small employee sample, self-reported GPA, Indonesian context	Longitudinal/experimental designs, larger employee samples, diverse contexts, other mediators (e.g., well-being)
Meng and Chang (2025)	Limited to three universities, convenience sampling, self-reports	Diverse universities/regions, longitudinal designs, objective AA measures
Ma and Ooi (2025)	Limited to cross-sectional, sixth graders, limited prior research	Diverse regions/cultures, longitudinal designs, different grade levels, additional mediators (e.g., parental influence)
Muluneh and Bejji (2024)	Limited to DM/HD students, cross-sectional, self-reports, median-split moderation	Broader health conditions, longitudinal/experimental designs, multi-informant data, latent moderated SEM
Kirikkanat and Soyer (2018)	Cross-sectional, two universities, self-reported GPA	Longitudinal studies, high school students, different tools, personality/family/socio-economic factors
Hassan et al. (2023)	Cross-sectional, two universities, self-reported CGPA, single moderator	Longitudinal studies, diverse samples, additional moderators (e.g., personal-emotional adjustment), multi-moderation models
Carmona-Halty et al. (2024)	Non-representative sample, unidirectional, short-term, no parent/peer data	Representative samples, bidirectional effects, long-term studies, include parents/peers, other TSR facets
Tang (2024)	Singular questionnaires, cross-sectional, Chongqing focus, no family/societal factors	Mixed methods, longitudinal designs, broader contexts, family/societal factors, intervention studies
Carmona-Halty et al. (2022)	Correlational, self-reports, unidirectional, short-term, high school focus	Other relationships (e.g., peers), cross-lagged models, long-term studies, parent reports, diverse academic levels

Carmona-Halty et al. (2021)	Cross-sectional, self-reports, needs four measurement points	Teacher emotions/PsyCap, crossover models, longitudinal designs, diverse contexts, quadratic/multilevel analyses
Carmona-Halty, Schaufeli, Llorens, et al. (2019)	Convenience sample, self-reports, unidirectional, short-term	Alternative models, class-level effects, other school variables, representative samples, long-term studies
Carmona–Halty et al. (2019)	Cross-sectional, self-reports	Longitudinal designs, school engagement/satisfaction, teacher perceptions, circumplex model, diverse contexts
Carmona-Halty, Schaufeli and Salanova (2019)	Self-reports, unidirectional Limited to adolescent high school students	Teachers' survey Bidirectional effects using cross-lagged models Different and diverse contexts Different theories should be considered.

4.5. A summary of a review article

Li et al. (2023) conducted a review to explore the concept of PsyCap within an academic context and investigate its relationship with academic outcomes among university students. They synthesized existing research to understand how PsyCap influences academic performance, engagement, and overall well-being in higher education settings.

A comprehensive systematic literature review was conducted, adhering to the PRISMA statement, to analyse studies published between 2012 and 2022. The researchers sourced relevant literature from six prominent academic databases: Web of Science, Scopus, ERIC, PsycINFO (EBSCO), SpringerLink, and ScienceDirect. The selection criteria specifically targeted empirical research that explored the impact of PsyCap on the academic performance of university students.

The initial search yielded 1259 manuscripts. A rigorous screening process was followed, involving the removal of duplicates and a thorough assessment of eligibility based on publication year, language, and the direct relevance of the content to the study's objectives. This process resulted in a final selection of 43 articles for in-depth review. The quality of these selected studies was appraised using the Crowe Critical Appraisal Tool (CCAT) to ensure the reliability and validity of the synthesized findings. The review revealed a consistent and significant relationship between Psychological Capital and a range of academic outcomes. PsyCap was found to be a crucial factor influencing academic performance, engagement, burnout, adjustment, stress, and intrinsic motivation among university students.

Specifically, the findings indicate that PsyCap positively influences academic performance. The relationship between academic PsyCap and academic performance was found to be mediated by self-handicapping behaviours. Furthermore, self-regulation partially mediates the relationship between PsyCap and GPA, highlighting the indirect pathways through which PsyCap operates. The review also pointed to the effectiveness of interventions in enhancing PsyCap levels, suggesting practical avenues for fostering these psychological resources in students.

Negative correlations were observed between PsyCap and procrastination, indicating that higher PsyCap is associated with reduced tendencies to delay academic tasks. While PsyCap was found to alleviate academic distress, its effect on academic eustress appeared to be limited. Moreover, PsyCap emerged as a significant mediator in various other critical relationships, including those between academic support and academic performance/engagement, peer support and academic performance, learning experiences and achievement, academic adaptation and procrastination, and network centrality and internal learning. A specific component of PsyCap, optimism, was identified as a significant negative predictor of academic burnout.

They concluded that Psychological Capital is a vital psychological resource that profoundly impacts various academic outcomes for university students. The consistent positive associations observed between PsyCap and indicators of academic success, engagement, and well-being emphasize its importance. The findings from this review strongly suggest that nurturing PsyCap in students can lead to improved academic achievements and overall holistic well-being.

While this systematic review provides valuable insights, it is important to acknowledge certain limitations. Despite the majority of the included studies demonstrating high quality, some received lower scores on the Crowe Critical Appraisal Tool. This suggests that there might be variations in the rigor and methodological soundness across the reviewed literature, which could subtly influence the overall synthesis. For future research, it is recommended to delve deeper into the nuanced relationships between the individual components of PsyCap and specific academic outcomes. Further empirical investigations could explore the efficacy of various PsyCap intervention programs in diverse academic contexts and across different student populations. Additionally, future studies could aim to identify other potential mediating or moderating variables that influence the PsyCap-academic outcome relationship, thereby contributing to a more comprehensive understanding of this critical area.

5. CONCLUSION

This review synthesizes a robust body of research on psychological capital (PsyCap) and its impacts on academic achievement across diverse student populations. The studies were searched from the Scopus database. The results from 15 selected articles show that PsyCap, comprising hope, self-efficacy, resilience, and optimism, serves as a critical mediator, direct predictor, and occasional moderator in the relationships between psychosocial factors—such as teacher-student relationships, parent-child relationships, positive emotions, school climate, and personality traits—and academic outcomes, typically measured by GPA or CGPA. Grounded in theoretical frameworks like Self-Determination Theory, Broaden-and-Build Theory, Conservation of Resources Theory, and Social Cognitive Theory, the studies highlight PsyCap's capacity to translate supportive environments and psychological resources into improved academic performance while mitigating challenges like stress, procrastination, and burnout. This review complements a review by Li et al. (2023), strengthening PsyCap's multiple roles in various settings beyond the university level and providing updated publications after 2022.

Methodologically, the studies employ a mix of cross-sectional and longitudinal designs, utilizing validated instruments like the Psychological Capital Questionnaire and advanced analytical techniques such as structural equation modelling and PROCESS macro analyses. Despite their rigour, limitations including reliance on self-reported data, context-specific samples, and predominantly cross-sectional designs constrain causal inferences and generalizability. Future research should prioritize longitudinal and experimental designs, diverse and representative samples, multi-method and multi-informant approaches, and the exploration of PsyCap's individual dimensions and additional contextual factors to enhance robustness and applicability. These are also similar to what was synthesised in the review by Li et al. (2023).

The theoretical implications advance educational psychology by extending workplace-derived PsyCap frameworks to academic settings, emphasizing its role as a malleable resource. Practically, the studies advocate for PsyCap-focused interventions, such as resilience workshops, mental health courses, and strength-based parenting programs, alongside fostering supportive teacher-student and parent-child relationships and positive school climates. Policy recommendations call for integrating PsyCap development into curricula, training teachers in transformational leadership, and supporting vulnerable populations like students with health impairments through tailored stress management programs. These findings overall highlight PsyCap's transformative potential to maximise student success and well-being, offering several pathways for educators, administrators, and policymakers to create resource-rich, supportive educational environments that empower students to thrive.

This review focuses exclusively on the Scopus database, targeting studies where PsyCap impacts academic outcomes, with searches limited to article titles. PsyCap has been linked to enhanced academic performance, engagement, motivation, and well-being in students (Luthans et al., 2015; Datu et al., 2016). By restricting the search to titles, the review ensures precision in identifying studies explicitly addressing PsyCap's role in academic contexts. However, this strategy has some limitations. It may exclude relevant studies not explicitly mentioning PsyCap in titles, overlook non-academic outcomes, and rely solely on Scopus, potentially missing broader literature from other databases (e.g., PubMed, Web of Science).

To address these limitations, future studies should expand searches across multiple databases to capture a comprehensive range of PsyCap-related research. Including keywords in abstracts and full texts could uncover additional relevant studies. Investigating PsyCap's impact on non-academic outcomes (e.g., mental health, social skills) would provide a holistic understanding.

Conflict of Interest: No potential conflict of interest relevant to this article was reported.

Funding: This research is funded by Vietnam National Foundation for Science and Technology Development (NAFOSTED) under grant number 503.01-2021.29

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