The Bioscan
AN INTERNATIONAL QUARTERLY JOURNAL OF LIFE SCIENCES
20(3): S.I (3), 1239-1249, 2025 www.thebioscan.com

Fostering Adolescent Well-Being through Psychological Capital: A Systematic Review of the HERO Model

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DOI: 10.63001/tbs.2025.v20.i03.S.I(3).pp1239-1249

KEYWORDS
Well-being, Psychological Capital (psycap), Hero, PRISMA, Adolescents, Mental Health

Received on:

04-08-2025

Accepted on:

08-09-2025

Published on:

07-10-2025

ABSTRACT

Adolescents' mental health and well-being have become a central concern in developmental psychology, particularly in the face of rising stressors. Psychological Capital (PsyCap), conceptualized through the HERO model—Hope, Efficacy, Resilience, and Optimism(Luthans et al., 2007) has emerged as a promising protective factor in adult populations. However, its relevance and application to adolescent well-being remain underexplored in a systematic and synthesized manner. This systematic review aims to synthesize empirical studies examining the relationship between PsyCap (or its individual constructs) and well-being among adolescents. Following PRISMA guidelines, relevant articles published between 2012 and 2024 were sourced from PubMed, and Google Scholar. Inclusion criteria were peer-reviewed, English-language, quantitative studies involving adolescents (10–19 years) and employing validated measures of PsyCap and well-being. A total of 30 studies met the eligibility criteria. Results suggest a consistent positive relationship between each HERO component and various dimensions of adolescent well-being, including life satisfaction, emotional health, and psychological flourishing. The review highlights key methodological trends, theoretical underpinnings, and practical implications for school-based interventions and youth mental health policies. Gaps in longitudinal research, measurement consistency, and cultural contexts are also discussed. This review underscores the potential of PsyCap in promoting adolescent resilience and flourishing, warranting deeper cross-cultural and developmental exploration.

INTRODUCTION

Adolescence, defined by the World Health Organization (WHO) as the period between 10 and 19 years of age, is a transitional stage characterized by profound biological, psychological, social, and emotional changes. The term "adolescence" is derived from the Latin word adolescere, meaning "to grow," reflecting the dynamic and multifaceted nature of this life phase. Adolescence is increasingly recognized as a foundational period for lifelong mental health, marked by rapid neurological, psychological, and social development that shapes emotional regulation, identity formation, and interpersonal functioning (Patton et al., 2016).

During this stage, individuals begin to explore personal values, form social relationships beyond the family, and experience increased emotional complexity. The maturing adolescent brain undergoes significant restructuring, particularly in regions responsible for decision-making, impulse control, and emotional regulation (Andersen et al., 2003; Dahl, 2004). These neurological developments, while essential for adult functioning, also contribute to a heightened sensitivity to peer influence, risk-taking behavior, and emotional reactivity (Spear, 2000).

Research has consistently shown that adolescence is also a period of increased vulnerability to psychological difficulties. Studies indicate a sharp increase in mental health concerns — such as anxiety, depression, and behavioral disorders — during adolescence, with approximately 14% of young people worldwide affected at any given time and global rates worsening markedly since 2000 (World Health Organization, 2020) Substance use and risk-taking behaviors, including drug and alcohol experimentation, frequently emerge during adolescence and are associated with long-term negative outcomes such as neurobiological impairment, mental health issues, and academic underperformance (de Looze et al., 2022). Moreover, the onset of many lifetimes mental health conditions typically occurs before the age of 18, emphasizing the importance of timely identification and intervention (Kessler et al., 2005).

Given these complexities, adolescence is increasingly viewed not just as a period of growth, but also as one of considerable vulnerability and opportunity. Given the far-reaching consequences of compromised mental health during adolescence—often extending into adulthood—there is a growing recognition of the need to understand and enhance factors that contribute to adolescents' overall well-being (Pine et al., 2021) Considering these vulnerabilities, researchers and practitioners alike have emphasized the importance of identifying the various influences that can either buffer against or intensify developmental challenges. Such understanding is crucial for developing effective, evidence-based interventions aimed at promoting mental health and flourishing during this pivotal life phase.

Over time, research has consistently shown that adolescent well-being is shaped by a dynamic interplay of internal and external factors

(Bronfenbrenner & Morris, 2006;Masten, 2014). Internally, psychological resources such as self-esteem, resilience, and optimism contribute to emotional stability and coping capacity (Ryff & Keyes, 1995). While other factors might exist, hope, self-efficacy, resilience and optimism, grouped under the umbrella of Psychological Capital have consistently grabbed researchers' attention in correlation with well-being. Although the idea of psychological capital had first been discussed in relation to organizational behavior (Luthans et al., 2007), it can also be applied to adolescents in familial settings, where it mediates the relationship between parent-adolescent dynamics and social outcomes. Psycap is the positive and developmental state of an individual, beyond human and social capital.

Psychological Capital (PsyCap)

In recent decades, the study of positive psychological resources has gained momentum as researchers and practitioners alike recognize the importance of focusing not only on deficits but also on strengths that promote individual growth and well-being. Among these strengths, **Psychological Capital (PsyCap**) has emerged as a robust, higher-order construct that encapsulates an individual's positive psychological state, characterized by self-efficacy, hope, resilience, and optimism. Initially conceptualized in the context of organizational behavior (Luthans et al., 2007), PsyCap has since been explored across diverse populations, including students and adolescents, due to its potential in fostering adaptive functioning and psychological well-being.

PsyCap is grounded in the **Positive Organizational Behavior (POB)** movement, which emphasizes measurable, developable, and manageable positive psychological capacities (Luthans et al., 2007). Unlike stable personality traits, PsyCap is considered a state-like construct, implying that it can be enhanced and cultivated through interventions and life experiences. This malleable nature makes PsyCap a particularly valuable resource during adolescence, a life stage marked by developmental transitions, identity formation, and heightened vulnerability to stressors.

At its core, **PsyCap comprises four key components:**

1. **Self-efficacy** - Self-efficacy refers to an individual's belief in their ability to organize and execute the actions required to achieve desired outcomes (Bandura, 1997). In adolescence—a developmental stage characterized by increased autonomy, identity formation, and academic and social challenges—self-efficacy plays a vital role in shaping behavior, motivation, and emotional well-being. Adolescents with high self-efficacy are more likely to approach difficult tasks as challenges to be mastered rather than threats to be avoided. They demonstrate greater persistence, resilience in the face of setbacks, and confidence in their capacity to influence their own development and success (Zimmerman & Cleary, 2006). Self-efficacy beliefs during adolescence are influenced by personal experiences, social modelling, verbal encouragement, and emotional states (Bandura, 1997). Positive reinforcement from parents, teachers, and peers can strengthen these beliefs, fostering proactive coping, academic achievement, and adaptive social behavior (Schunk & DiBenedetto, 2020) Conversely, low self-efficacy can contribute to avoidance behaviors, decreased motivation, and vulnerability to stress and negative emotions (Caprara et al., 2008). Thus, self-efficacy is not only a predictor of performance and adjustment in adolescence but also a key protective factor in promoting psychological well-being.

2. **Hope** – Hope is conceptualized as a positive motivational state based on a sense of successful agency (goal-directed determination) and pathways (planning to meet goals) (Snyder et al., 1997). During adolescence, hope enables individuals to envision meaningful future outcomes and believe in their capacity to achieve them through purposeful planning and sustained effort. Adolescents with higher levels of hope tend to set more challenging goals, demonstrate greater perseverance, and recover more quickly from setbacks (Snyder et al., 2002). Hopeful adolescents are also more likely to engage in proactive coping, display adaptive problem-solving skills, and report higher levels of well-being and academic success (Marques et al., 2011).

3. **Resilience**- capacity to adapt positively in the face of adversity, trauma, or significant sources of stress (Masten, 2014). In adolescence, resilience involves navigating developmental challenges, family conflicts, academic pressures, and social transitions while maintaining psychological well-being. Resilient adolescents are able to regulate emotions, maintain optimism, and draw on personal and social resources to recover from difficulties (Wagnild & Collins, 2009). The presence of resilience supports mental health, protects against risk behaviors, and enhances long-term adjustment and life satisfaction. Importantly, resilience is not a fixed trait but a dynamic process that can be cultivated through supportive relationships, positive environments, and skill-building opportunities (Luthar & Cicchetti, 2000).

4. **Optimism**- Optimism is defined as the general expectation that good things will happen in the future, even in the face of obstacles (Scheier & Carver, 1985). Among adolescents, optimism contributes to goal persistence, emotional regulation, and a hopeful outlook on life, particularly during periods of stress and uncertainty. Optimistic adolescents are more likely to interpret challenges as temporary and manageable, use adaptive coping strategies, and experience fewer symptoms of depression and anxiety (Ey et al., 2005). Moreover, optimism has been associated with increased academic engagement, stronger peer relationships, and higher levels of subjective well-being (Carver et al., 2010). Like other components of psychological capital, optimism can be nurtured through modeling, reinforcement, and cognitive-behavioral techniques.

These four psychological resources do not function in isolation; rather, they synergistically interact to form a psychological reservoir that equips individuals with the confidence, motivation, and persistence needed to navigate life's challenges. Drawing from Hobfoll, 2001 Conservation of Resources (COR) theory, PsyCap can be understood as a 'resource caravan'—a cluster of personal resources that accumulate and reinforce each other over time, thereby enhancing an individual's ability to manage stress and achieve success.

Given its dynamic and developmental nature, PsyCap aligns well with positive youth development frameworks, which emphasize building strengths and assets to support holistic adolescent growth. By fostering self-efficacy, hope, resilience, and optimism, interventions aimed at enhancing PsyCap hold promise in promoting adolescent well-being, even in the face of challenging parenting dynamics and environmental stressors.

Rationale for Reviewing HERO Constructs in Adolescent Populations

Adolescence is a pivotal developmental stage marked by identity exploration, emotional regulation challenges, and heightened sensitivity to social environments (Oropesa Ruiz, 2022). This period often coincides with increased vulnerability to psychological distress, with global reports indicating a sharp rise in anxiety, depression, and stress-related disorders among youth (World Health Organization, 2021). There is a growing consensus that promoting psychological strengths, rather than focusing solely on pathology, is essential for fostering sustainable mental health in adolescents.

Psychological Capital (PsyCap), grounded in positive psychology, encompasses four core constructs—Hope, Efficacy, Resilience, and Optimism (HERO)—that are individually and collectively associated with enhanced coping, motivation, and mental well-being. Although extensively validated in organizational and adult populations (Luthans & Morgan, 2017), the systematic examination of PsyCap within adolescent populations remains limited. Existing research tends to be fragmented, often addressing only one or two components of HERO, and lacks an integrated framework that reflects the complex psychological needs of adolescents.

Furthermore, the theoretical alignment of the HERO model with adolescent developmental tasks—such as goal-setting, overcoming adversity, and forming future outlooks—underscores its potential relevance. In practical terms, understanding how these constructs function in youth could inform the design of school-based interventions, resilience training programs, and youth well-being policies. Therefore, this systematic review is both timely and necessary, aiming to consolidate existing empirical evidence and identify directions for future research.

Objectives of the Review

1. To systematically identify and synthesize empirical studies that examine the relationship between Psychological Capital (PsyCap) or its individual HERO components (Hope, Efficacy, Resilience, Optimism) and well-being in adolescent populations.
2. To evaluate the methodological quality and trends across the included studies, including study design, measurement tools, and sample

characteristics.

3. To assess the strength and consistency of associations between each HERO construct and various indicators of adolescent well-being, such as life satisfaction, psychological flourishing, and emotional health.
4. To identify research gaps and suggest future directions for theory development, cross-cultural validation, and intervention design targeting adolescent PsyCap and well-being.

Methodology

This systematic review was conducted in accordance with the **Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020** guidelines (Page et al., 2021). A comprehensive search was conducted across **Google Scholar** and **PubMed** to identify peer-reviewed studies published in English that examined the association between Psychological Capital (PsyCap) and adolescents' well-being. The search terms included combinations of the following keywords and Boolean operators: "Psychological Capital" OR "PsyCap" OR "Hope" OR "Self-efficacy" OR "Resilience" OR "Optimism" AND "Well-being" OR "Subjective Well-being" OR "Mental Health" AND "Adolescents" OR "Youth" OR "Students."

The initial Google Scholar search returned over 16,000 results. To manage this large volume and ensure relevance, **only the first 700 studies**, sorted by relevance, were manually screened based on title and abstract. This approach is consistent with accepted practices in reviews using search engines without advanced filters. Simultaneously, a targeted search was conducted on **PubMed**, applying filters for article type (journal articles, evaluation studies, RCTs), age group (adolescents), and language (English), which yielded an additional 200 records. In total, **approximately 900 records** were initially identified for screening.

Inclusion criteria:

- Peer-reviewed empirical studies published in English
- Quantitative or mixed-methods designs
- Studies including adolescents
- Use of standardized/validated measures of at least one HERO construct and well-being
- Clearly reported outcomes linking PsyCap/HERO constructs with well-being indicators

Exclusion criteria:

- Studies on adult or clinical populations (e.g., diagnosed psychiatric conditions)
- Theoretical papers, editorials, or reviews
- Grey literature and dissertations
- Non-English publications

Data Extraction and Quality Assessment

All identified records were imported into reference management software, and duplicates were removed. Two reviewers independently screened titles and abstracts for potential eligibility. Full-text articles were then evaluated against the inclusion and exclusion criteria. Discrepancies were resolved through discussion. The entire process of selection is illustrated using the PRISMA 2020 flow diagram (Appendix A). Key data were extracted from the included studies using a standardized form developed for this review. Extracted variables included: author(s), publication year, country, sample details, measures used for HERO constructs and well-being, study design, and key findings. The methodological quality of the selected studies was assessed using the **Joanna Briggs Institute (JBI) Critical Appraisal Checklist** for Analytical Cross-Sectional Studies. Two reviewers independently rated each study across criteria related to study validity and reliability. Any disagreements were resolved through discussion and consensus.

Results

The 30 included studies varied in terms of geographical context, research design, sample characteristics, and measurement tools. The studies were conducted across a wide range of cultural settings, including Australia, China, India, Pakistan, Iran, Indonesia, Malaysia, Turkey, Lithuania, the Philippines, South Africa, and the United States. This diversity strengthens the cross-cultural relevance of the findings and contributes to a more global understanding of adolescent psychological capital. All studies focused on adolescents aged 10 to 19 years, with some extending slightly beyond this range (e.g., early university students aged 19–22), but still within late adolescence. Sample sizes ranged from 30 to over 700 participants, depending on the study design and context.

In terms of research design **nineteen studies** utilized **cross-sectional correlational designs**, primarily examining associations between Psychological Capital (PsyCap) or its HERO components (Hope, Efficacy, Resilience, and Optimism) and various dimensions of adolescent well-being. **Six studies** adopted **quasi-experimental or intervention-based approaches**, assessing the effectiveness of structured programs such as **Growth Mindset Training (GMTM)** and **Psychological Capital Intervention (PCI)** in enhancing HERO traits and mental health outcomes. **Two studies** employed **longitudinal designs**, offering temporal insights into the developmental trajectories of PsyCap and its sustained influence on academic and psychological well-being. **Three studies** applied **structural equation modeling (SEM)** or **path analysis** to test PsyCap as a mediating or moderating variable between external influences (e.g., cumulative risk, bullying, family support) and adolescent well-being indicators.

Measurement tools varied considerably across studies. PsyCap was commonly measured using: The Psychological Capital Questionnaire (PCQ) developed by Luthans et al., though originally designed for adults. Adapted or culturally validated scales for Hope (Snyder et al., 2002a), Self-Efficacy (Schwarzer & Jerusalem, 1995), Resilience (Wagnild, 2009), and Optimism (Scheier et al., 1994). A few studies utilized purpose-developed tools for adolescents or school-specific versions (e.g., "Academic PsyCap"). Well-being was assessed using a variety of validated instruments, including: The Satisfaction with Life Scale (SWLS), The PERMA Profiler, The WHO-5 Well-Being Index, And broader mental health tools such as DASS-21, PANAS, or custom indices of psychological, emotional, or academic well-being.

Across the 30 included studies, a consistent and meaningful association emerged between Psychological Capital (PsyCap) and various dimensions of adolescent well-being. PsyCap—whether measured as a unified construct or via its HERO components (Hope, Efficacy, Resilience, and Optimism)—was positively related to subjective well-being, emotional stability, academic functioning, and psychosocial adaptation. The synthesis of results reveals five interrelated themes: (a) overall association between PsyCap and adolescent well-being, (b) differential contribution of HERO components, (c) evidence from intervention-based studies, (d) cross-cultural variation and generalizability, and (e) methodological and measurement trends.

PsyCap as a Predictor of Adolescent Well-Being

The majority of studies (n = 26) reported a significant positive correlation between PsyCap and adolescent well-being. Well-being was broadly operationalized across psychological (e.g., life satisfaction, flourishing), emotional (e.g., reduced anxiety and depression), and behavioral domains (e.g., prosocial involvement, reduced internalizing and externalizing problems). For example, Finch et al., (2020) found that higher levels of PsyCap significantly predicted lower levels of mental health symptoms, such as anxiety and depression, and greater subjective well-being in Australian adolescents. Similarly, Alfonso et al., (2016) reported that PsyCap was a key predictor of both life satisfaction and perceived school belongingness among Filipino youth. These findings align with theoretical assumptions that PsyCap serves as a psychological buffer, enhancing adaptive coping and fostering positive functioning.

Differential Contribution of HERO Components

While many studies measured PsyCap as a composite construct, several provided disaggregated analyses of the individual HERO dimensions. Among the four components, **hope** and **resilience** emerged most consistently as strong predictors of adolescent well-being.

Hope was associated with goal-setting, future orientation, and academic outcomes (Carmona et al., 2024; Rao et al., 2020), whereas **Resilience** was particularly salient in samples exposed to adversity, including institutionalized children (Melese et al., 2024) and adolescents experiencing bullying (Hu et al., 2022)

Self-efficacy was frequently linked to reduced emotional distress and greater behavioral regulation, especially in studies examining anxiety, stress, and school performance (Sabouripour et al., 2021; Yıldırım et al., 2025). **Optimism**, while slightly less represented as a standalone construct, consistently correlated with positive affect, emotional stability, and protective coping (Song & Song, 2021; Wu et al., 2025). The use of separate measurement tools for each HERO dimension, as done in several studies (e.g., Finch et al., 2023a; Rao et al., 2020)), provided greater granularity in identifying which psychological resources

most influence adolescent outcomes.

PsyCap-Based Interventions and Their Outcomes

A subset of studies (n = 6) utilized intervention or quasi-experimental designs to evaluate the impact of PsyCap-focused programs. These included Growth Mindset Training (Rao et al., 2020), Psychological Capital Interventions (Yarhosseinei et al., 2022), and other structured school-based modules aimed at enhancing HERO traits. Most interventions were conducted over 6 to 8 weeks and showed significant improvements in participants' PsyCap levels as well as their emotional and psychological well-being. For instance, Finch et al. (*2023a*) reported that Australian adolescent girls who participated in a brief intervention exhibited substantial gains in hope, resilience, and optimism, alongside reductions in distress symptoms. These findings indicate the potential utility of PsyCap-based programming in youth mental health promotion, particularly within educational settings.

Summary of Included Studies

A detailed summary of the 30 included studies is presented in **Appendix B**, which outlines each study's citation, objective, sample characteristics, measurement tools, key findings, and relevance to the current review. The table reflects the diversity of methodologies, cultural contexts, and conceptual approaches to Psychological Capital in adolescence. Notably, while some studies focused on specific HERO components, others employed composite measures of PsyCap. Similarly, well-being was assessed through various lenses—ranging from mental health outcomes (e.g., anxiety, depression) to broader indicators such as life satisfaction, academic performance, and flourishing.

The collective evidence supports the theoretical robustness and applied utility of the PsyCap construct in adolescence. However, the variation in measurement strategies and limited number of longitudinal or intervention studies underscore the need for further research grounded in developmentally appropriate models and psychometrically sound tools.

Discussion

This systematic review aimed to synthesize empirical evidence on the relationship between Psychological Capital (PsyCap) and well-being in adolescent populations. The analysis of 30 peer-reviewed studies conducted across diverse cultural and educational settings revealed strong and consistent associations between PsyCap and multiple indicators of adolescent well-being. These included psychological functioning, emotional regulation, life satisfaction, academic achievement, and reduced mental health symptoms.

The findings affirm the theoretical proposition that PsyCap functions as a positive psychological resource that can buffer adolescents against stressors and enhance their capacity for adaptive functioning (Luthans et al., 2007). In particular, the HERO components—Hope, Efficacy, Resilience, and Optimism—appeared to operate both independently and synergistically to promote positive developmental outcomes. Hope and resilience were most frequently associated with academic motivation and stress coping, while self-efficacy and optimism were linked with emotional well-being and reduced symptoms of internalizing problems.

The inclusion of multiple intervention studies offers practical support for the development of PsyCap-based programs in school settings. For instance, brief school-based interventions focusing on growth mindset or HERO training resulted in measurable improvements in both PsyCap and adolescent well-being. These findings suggest that PsyCap is not only a predictive construct but also a **malleable strength**, which can be cultivated through targeted efforts during a period of heightened neuropsychological plasticity and identity formation.

Although PsyCap research has historically focused on adults in occupational or organizational contexts, the extension of this construct to adolescents aligns with emerging trends in positive youth development (PYD). Previous narrative reviews and conceptual articles (e.g., Avey et al., 2011; Alfonso et al., 2016) have emphasized the potential of HERO traits in promoting life satisfaction, academic success, and resilience. However, unlike prior literature, the current review systematically aggregates empirical evidence using defined inclusion criteria and methodological rigor guided by PRISMA standards.

Importantly, our findings support Finch et al.'s (2020, 2023) work in the Australian context, which demonstrated the predictive role of PsyCap in student flourishing and mental health across the COVID-19 period. Similarly, studies from collectivist cultures (e.g., China, Pakistan, India) also showed that HERO traits function as protective resources, albeit influenced by context-specific stressors like academic pressure, family expectations, or limited autonomy. This reinforces the cross-cultural applicability of the PsyCap framework while also highlighting the need for contextual adaptation in its measurement and intervention.

Strengths and Gaps in the Literature

A major strength of the reviewed studies lies in their cross-cultural diversity and breadth of well-being outcomes assessed. This heterogeneity enhances the generalizability of findings and affirms the global relevance of Psychological Capital in supporting adolescent development. The inclusion of intervention studies further adds applied value, demonstrating that PsyCap is not merely a static trait but a dynamic set of skills that can be developed through structured programs. Additionally, some studies employed rigorous designs—such as longitudinal methods and structural equation modelling—which strengthen causal inferences and clarify mediating mechanisms.

However, several limitations in the current body of literature warrant attention. First, the **predominance of cross-sectional studies** (over 60%) limits the ability to establish temporal or causal relationships between PsyCap and well-being. Longitudinal and experimental designs remain underutilized. Second, although the HERO framework was developed for adults, many studies applied adult-centric tools such as the Psychological Capital Questionnaire (PCQ) without adequate age validation for adolescent samples. This raises concerns about developmental appropriateness and measurement validity.

Third, relatively few studies differentiated between **early, middle, and late adolescence**, which may mask important age-specific variations in how PsyCap operates. Similarly, while cultural variation was a strength, only a few studies explicitly examined how cultural factors (e.g., collectivism vs. individualism, family structure) may moderate the PsyCap–well-being relationship. Finally, there remains limited exploration of PsyCap's role in **marginalized adolescent groups**, such as LGBTQ+ youth, or adolescents with disabilities, trauma histories, or socio-economic adversity—areas that warrant urgent research attention.

Implications for Practice and Policy

The evidence synthesized in this review carries significant implications for educators, school psychologists, counselors, and policymakers. The consistent positive association between PsyCap and adolescent well-being suggests that HERO traits should be integrated into school-based mental health promotion and life skills curricula. Programs that foster hope (goal setting and pathway thinking), build resilience (coping strategies), enhance self-efficacy (mastery experiences), and cultivate optimism (positive attribution styles) could serve as protective buffers against stress, academic burnout, and emotional dysregulation.

Given that several reviewed interventions demonstrated effectiveness over relatively short durations (e.g., 6–8 sessions), schools can feasibly embed PsyCap development into existing social-emotional learning (SEL) frameworks or positive education programs. Furthermore, incorporating PsyCap into national and regional policy frameworks focused on adolescent mental health could enhance long-term developmental outcomes and reduce the risk of mental health disorders during this critical life stage.

For clinical and counselling professionals, PsyCap offers a **strengths-based alternative** to traditional deficit-based approaches, allowing adolescents to focus on cultivating internal resources rather than solely managing symptoms. At the policy level, investment in scalable, culturally adaptable PsyCap interventions—particularly for vulnerable or underserved youth populations—can serve as a sustainable strategy to promote resilience, academic engagement, and holistic well-being.

Future Directions and Research Recommendations

Building on the insights of this review, future research should prioritize **longitudinal and experimental designs** to better understand the developmental trajectory of PsyCap and its causal impact on adolescent well-being. Multi-wave studies could shed light on how HERO traits evolve across different stages of adolescence and under varying socio-environmental conditions. Similarly, well-designed randomized controlled trials (RCTs) are needed to rigorously evaluate the efficacy and sustainability of PsyCap-based interventions, particularly those embedded in school or community settings.

There is also a pressing need to **develop and validate adolescent-specific PsyCap assessment tools**. Given the ongoing reliance on adult-

derived instruments, future efforts should focus on adapting existing scales or constructing new measures that are developmentally appropriate, culturally sensitive, and psychometrically sound for adolescent populations.

In addition, **research in underrepresented populations** remains limited. Future studies should actively include adolescents from marginalized backgrounds, such as those living in poverty, displaced settings, or belonging to minority ethnic or gender groups. Exploring how PsyCap interacts with factors like trauma, stigma, peer influence, or digital engagement will further enrich our understanding of adolescent resilience and flourishing.

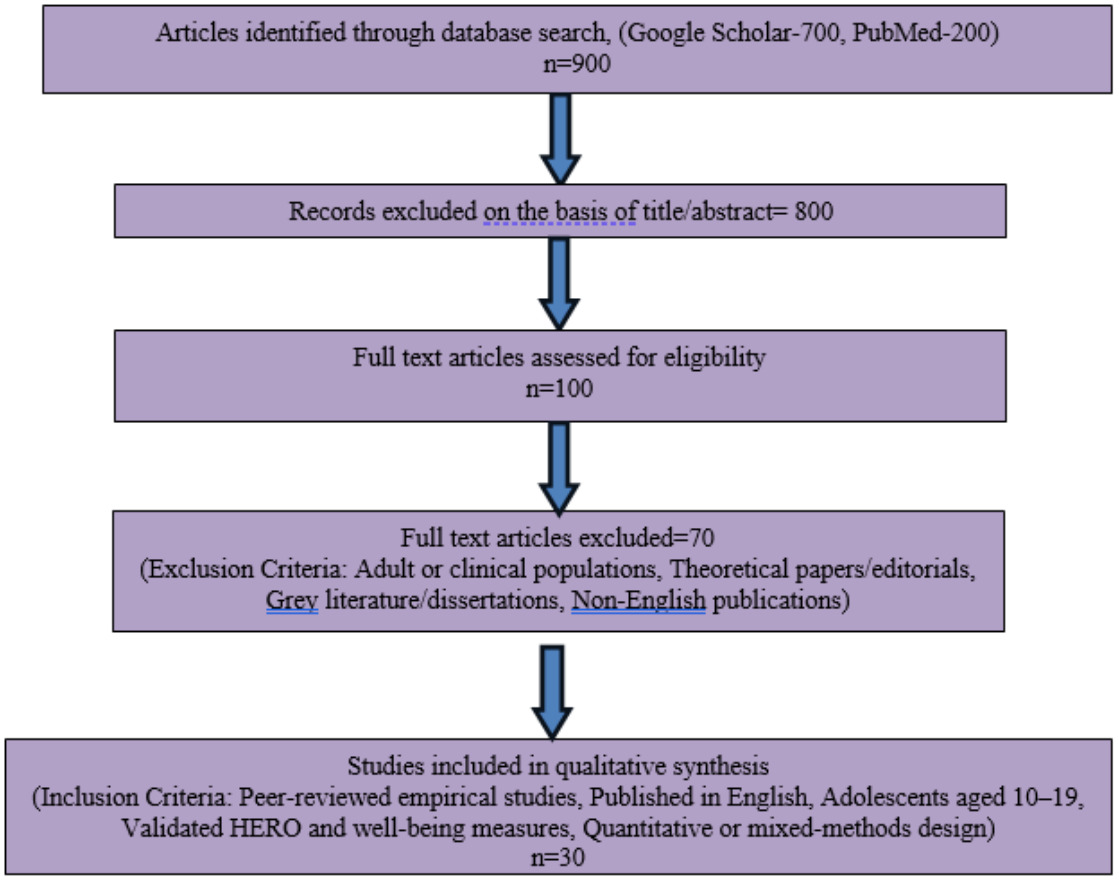
Cross-cultural comparative studies may also help uncover contextual moderators of PsyCap's effectiveness, facilitating culturally informed interventions that respect local beliefs, values, and developmental priorities. Finally, future reviews might consider **meta-analytic approaches** to quantitatively estimate the strength of associations between PsyCap and specific well-being outcomes.

Conclusion

This systematic review consolidates and interprets a decade of empirical evidence on the role of Psychological Capital in adolescent well-being. The findings offer robust support for the HERO model as a meaningful predictor of positive developmental outcomes across diverse cultural contexts. Hope, Efficacy, Resilience, and Optimism emerged not only as traits associated with emotional and psychological well-being but also as malleable resources that can be enhanced through structured interventions.

While methodological limitations such as cross-sectional designs and measurement inconsistencies remain, the review underscores the theoretical promise and practical value of PsyCap in adolescent development. Integrating PsyCap into school-based mental health frameworks and youth development policies may represent a sustainable path forward in addressing the growing mental health needs of adolescents globally.

Appendix A



Appendix B

Summary of Included Studies on Psychological Capital and Adolescent Well-Being (N = 30)

	Citation	Appendix B Summary of Included Studies on Psychological Capital and Adolescent Well-Being (N = 30) Objective	Sample	Tools Used	Key Findings	Relevance
1.	(Afzal et al., 2014)	Examine emotions as moderators in PsyCap–SWB link.	Adolescents, Pakistan	PsyCap, PANAS, SWLS	Positive emotions amplified PsyCap effects.	Reveals emotional condition relevance.
2.	(Afzal et	Assess PsyCap in	Adolescent	PsyCap,	Positive PsyCap-	Replicates

	Citation	Appendix B Summary of Included Studies on Psychological Capital and Adolescent Well-Being (N = 30) Objective	Sample	Tools Used	Key Findings	Relevance
	al., 2016)	relation to well-being and emotions.	s, Pakistan	Emotions, SWB Scales	emotion–well-being links.	prior PsyCap findings.
3.	(Kaur & Amin, 2017)	To assess the relationship between PsyCap and academic stress among adolescents.	Adolescents India	PsyCap Scale (Luthans et al.), Academic Stress Inventory	Significant negative correlation between PsyCap and academic stress; self-efficacy and hope varied by school context.	Demonstrates protective role of HERO traits in Indian adolescent stress regulation.
4.	(Sarkar & Others, 2017)	Evaluate life-skills training on resilience and psychological well-being.	Adolescents, India	CYRM-28, behavioral and well-being indices	Intervention enhanced resilience and reduced behavioral/emotional difficulties.	Validates resilience-building interventions as part of adolescent PsyCap development.
5.	(Biswas et al., 2022)	Examine the relationship between resilience and psychological well-being.	468 school-going adolescents, India	CYRM-R, PHQ-4 (well-being)	Resilience positively predicted psychological well-being	Highlights resilience as a key HERO trait influencing adolescent mental health.
6.	(Carmona-Halty et al., 2024)	Assess basic needs → PsyCap → academic outcomes.	High school students, Chile	Needs Scale, PsyCap, Academic Data	PsyCap mediated basic need–performance link.	Validates motivational role of PsyCap.
7.	(Gujar & Ali, 2019)	Study PsyCap and self-esteem on behavior/emotion.	Adolescents, India	PsyCap, Self-Esteem, EBP Scales	PsyCap linked to reduced behavior problems.	Emphasizes dual protective factors.
8.	(Alfonso et al., 2016)	Evaluate PsyCap's role in life satisfaction and belonging.	Adolescents, Philippines	PsyCap, Belongingness, Life Satisfaction	Strong associations across outcomes.	Suggests school relevance of PsyCap.
9.	(Finch et al., 2020)	Examine PsyCap as a predictor of adolescent well-being.	School-age youth, Australia	PsyCap, MH, SWB Scales	PsyCap predicted fewer symptoms and higher well-being.	Foundational empirical evidence.
10.	(King et al., 2020)	Examine PsyCap's role in positive emotional engagement in school/work.	Adolescents and young adults, Asia	PsyCap Scale, Emotion Scales	PsyCap Was significantly associated with emotional engagement.	Highlights dual-context use of PsyCap.
11.	(Rao et al., 2020)	Evaluate Growth Mindset Training on PsyCap in tribal adolescents.	Adolescents, India	GMTM, Hope, Efficacy, Optimism Scales	Improved hope, efficacy, optimism.	Demonstrates malleability of PsyCap.
12.	(Xiong et al., 2020)	Test PsyCap's moderation between cumulative risk and distress.	Adolescents, China	Cumulative Risk, PsyCap, Mental Health Tools	High PsyCap reduced distress under risk.	PsyCap as resilience asset.
13.	(Garcia et al., n.d.)	Compare PsyCap in Latinx youth with enrichment access.	Latinx Youth, USA	PsyCap (HERO)	Higher PsyCap in enriched participants.	Shows effect of structured programming.

	Citation	Appendix B Summary of Included Studies on Psychological Capital and Adolescent Well-Being (N = 30) Objective	Sample	Tools Used	Key Findings	Relevance
14.	(Munawer et al., 2021)	To explore Psychological Capital as a predictor of mental health among university students.	Students, India	PsyCap Scale, GHQ-28	All HERO components significantly predicted better mental health; resilience and optimism strongest.	Provides empirical Indian support for HERO model among emerging adults.
15.	(King & Caleon, 2021)	Develop and validate school-based PsyCap scale.	High school students	PsyCap-School Form	New tool showed good psychometrics.	Supports adolescent-relevant measurement.
16.	(Dirzyte & Perminas, 2021)	Examine links between PsyCap, well-being, and health.	Adolescents, Lithuania	PsyCap, WHO-5, Health Scales	Positive correlations across all domains.	Shows general well-being impact.
17.	(Song & Song, 2021)	Examine PsyCap's buffer in stress–depression link.	Adolescents, China	PsyCap, Stress, Depression Scales	PsyCap weakened stress impact on depression.	Supports stress-buffer model.
18.	(Sabouripour et al., 2021)	Examine self-efficacy as mediator in HERO–well-being link.	Adolescents, Iran	HERO Scales, Self-Efficacy, Well-being	Self-efficacy mediated HERO effects.	Shows mechanism within PsyCap.
19.	(Cao et al., 2022)	Compare PsyCap's role across ages during COVID-19.	Adolescents vs adults, China	PsyCap, Social Support, MH Scales	Greater benefits for adolescents.	Shows developmental significance.
20.	(Hu et al., 2022)	Examine PsyCap's mediation between bullying and well-being.	Adolescents, China	Bullying, Social Capital, PsyCap, Well-being Scales	Relational bullying reduced well-being; PsyCap mediated.	Validates buffer role of PsyCap.
21.	(Yarhosseinei et al., 2022)	Test effect of PCI on mental health.	Adolescents, Iran	PCI, PsyCap, Mental Health	PCI improved HERO and well-being.	Endorses structured PsyCap intervention.
22.	(Chaudhary & Narad, 2022)	To examine the relationship between Psychological Capital and academic achievement in adolescents.	Adolescents, India	PCQ-24 (Luthans et al.), academic score sheets	PsyCap positively correlated with academic achievement; private school students showed higher PsyCap than government school peers.	Adds Indian school-based evidence; highlights socioeducational variation in HERO traits.
23.	Goyal & Singh (2024)	To examine the relationship between academic stress and PsyCap.	Adolescents India	Standardized scales for Academic Stress and PsyCap	Found a significant negative correlation between academic stress and psychological capital.	Demonstrates that academic stress negatively affects PsyCap; relevant for late adolescents and young adults.
24.	(Finch et al., 2023)	Evaluate HERO intervention	Adolescents, Australia	Pre-post HERO, DASS	PsyCap and well-being improved.	Confirms short-term

	Citation	Appendix B Summary of Included Studies on Psychological Capital and Adolescent Well-Being (N = 30) Objective	Sample	Tools Used	Key Findings	Relevance
		during COVID-19.				HERO training efficacy.
25.	(Wang et al., 2023)	Examine family support/coping as mediators in PsyCap–well-being link.	Adolescents, Asia	PsyCap, Coping, Support, Well-being Scales	Indirect effects via family and coping.	Shows contextual influences on PsyCap.
26.	(John & Menon, 2024)	To evaluate the effectiveness of a PsyCap-based intervention on Indian university students' mental health.	Adolescents, India	HERO-based intervention; Life Satisfaction Scale; PsyCap scale (Luthans)	Two-day workshop improved hope, resilience, self-efficacy, and well-being; optimism remained unchanged.	Validates cultural adaptability and utility of PsyCap interventions in Indian HEIs.
27.	(Melese et al., 2024)	Assess PsyCap's role in mental health of children.	Adolescents, South Africa	PsyCap, Support, Mental Health Scales	PsyCap mediated support–well-being.	Highlights value in vulnerable groups.
28.	(Sutton & Roemer, 2024)	To tests the extent to which HERO may explain well-being	Adolescents, New Zealand	Psychological Capital Questionnaire (PCQ), Authenticity Scale (Wood et al.), Well-Being Scale	Authenticity significantly predicted well-being and showed comparable or greater effect sizes than Optimism and Efficacy; CFA supported the A-HERO model structure.	Supports the expansion and flexibility of the PsyCap model. Highlights the growing relevance of including authenticity as a key predictor of well-being. While not adolescent-specific, it strengthens the case for using PsyCap to predict well-being outcomes.
29	(Cherewick et al., 2024)	Examine the relationship between self-efficacy, social support, and mental health in early adolescents.	Adolescents, India	Self-Efficacy Questionnaire for Children (SEQ-C), well-being and psychological symptom scales	Higher emotional and academic self-efficacy were associated with reduced psychological symptoms and increased mental well-being.	Provides robust empirical evidence linking self-efficacy (a HERO trait) to mental health and well-being in Indian adolescents.
30.	(Azliyanti & Jadmiko, 2024)	Explore impact of positive emotions/happiness via PsyCap.	Indonesian students	Modified PsyCap, Emotion, Happiness Scales	PsyCap mediated emotion–mental health link.	PsyCap as emotional resource.

REFERENCES

- Afzal, A., Atta, M., & Psychology, N. M. (2016). Role of positive psychological capital in prediction of emotions and subjective wellbeing among adolescents. Journal of the Indian Academy of Applied Psychology, 42(1), 72–81. https://www.researchgate.net/profile/Mohsin-Atta/publication/272696419_The_moderating_role_of_positive_and_negative_emotions_in_relationship_between_positive_psychological_capital_and_subjective_well-being_among_adolescents/links/59f0e177aca272cdc7ce025d/
- Afzal, A., Malik, N. I., & Atta, M. (2014). The moderating role of positive and negative emotions in relationship between positive psychological capital and subjective well-being among adolescents. International Journal of Research Studies in Psychology, 3(3), 29–42. https://doi.org/10.5861/ijrsp.2014.687
- Alfonso, J., Datu, D., King, R. B., Millonado Valdez, J., Datua, D., Kingb, R. B., Patricia, J., Valdezc, M., & Valdez, M. (2016). Psychological capital bolsters motivation, engagement, and achievement: Cross-sectional and longitudinal studies. Taylor & FrancisJAD Datu, RB King, JPM ValdezThe Journal of Positive Psychology, 2018•Taylor & Francis, 13(3), 260–270. https://doi.org/10.1080/17439760.2016.1257056
- Andersen, S. L., Conger, J. J., Petersen, A. C., Costello, E. J., Mustillo, S., Erkanli, A., Keeler, G., & Angold, A. (2003). Adolescence and youth: Psychological development in a changing world. Archives of General Psychiatry, 27(1–2), 837–844. https://doi.org/10.1016/S0149-7634(03)00005-8
- Avey, J. B., Reichard, R. J., Luthans, F., Mhatre, K. H., & -Lincoln Avey, N. (2011). Meta-analysis of the impact of positive psychological capital on employee attitudes, behaviors, and performance. Human Resource Development Quarterly, 22(2), 127–152. https://doi.org/10.1002/HRDQ.20070)
- Azliyanti, E., & Jadmiko, P. (2024). AN EXPLORATION OF THE IMPACT OF POSITIVE EMOTIONS AND HAPPINESS ON MENTAL HEALTH USING THE CONCEPT OF PSYCHOLOGICAL CAPITAL. Jurnal Apresiasi Ekonomi, 13(1), 73–83. https://ojsapresiasiekonomi.itskhatulistiwa.ac.id/index.php/apresiasiekonomi/article/view/922
- Bandura, A. (1997). Self-efficacy: The exercise of control. W.H. Freeman. https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Bandura%2C+A.+%281997%29.+Self-efficacy%3A+The+exercise+of+control.+W.H.+Freeman.&btnG=#d=gs_cit&t=1745680133144&u=%2Fscholar%3Fq%3Dinfo%3APWqR9xsPlpkJ%3Ascholar.google.com%2F%26output%3Dcite%26scirp
- Biswas, B., Kumar, P., Ahmad, S., Sachan, N., Singh, C., Ramalingam, A., & Das, K. M. (2022). Resilience level, its determinants and its effect on psychological well being: A cross sectional evaluation among school going adolescents of Patna, Bihar, India. Nigerian Postgraduate Medical Journal, 29(1), 29. https://doi.org/10.4103/npmj.npmj_724_21
- Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In W. Damon & R. M. Lerner (Eds.), Handbook of Child Psychology: Theoretical models of human development (5th ed., Vol. 1, pp. 793–828). Wiley. https://doi.org/10.1002/9780470147658.chpsy0114
- Cao, S., Zhu, Y., Li, P., Zhang, W., Ding, C., & Yang, D. (2022). Age Difference in Roles of Perceived Social Support and Psychological Capital on Mental Health During COVID-19. Frontiers in Psychology, 13, 801241. https://doi.org/10.3389/fpsyg.2022.801241
- Caprara, G. V., Fida, R., Vecchione, M., Del Bove, G., Vecchio, G. M., Barbaranelli, C., & Bandura, A. (2008). Longitudinal Analysis of the Role of Perceived Self-Efficacy for Self-Regulated Learning in Academic Continuance and Achievement. Journal of Educational Psychology, 100(3), 525–534. https://doi.org/10.1037/0022-0663.100.3.525
- Carmona-Halty, M., Salanova, M., & Schaufeli, W. B. (2024). The strengthening starts at home: Parent–child relationships, psychological capital, and academic performance – a longitudinal mediation analysis. Current Psychology, 41(6), 3788–3796. https://doi.org/10.1007/s12144-020-00898-8
- Chaudhary, R., & Narad, A. (2022). Relationship in Psychological Capital and Academic Achievement of adolescents. Journal of Positive School Psychology, 6(2). https://search.ebscohost.com/login.aspx?direct=true&profile=ehost&scope=site&authtype=crawler&jrnl=27177564&AN=156793579&h=%2B%2B01i2rFwTK8xbdFNKrfRaoQcH%2FONhuy%2BO4rCKStmgh77FLsKSV2grMvi4Pm%2Fw0kC3I6gN0RScmrsIXjilt8ig%3D%3D&crl=c
- Cherewick, M., Lama, R., Rai, R. P., Dukpa, C., Mukhia, D., Giri, P., & Matergia, M. (2024). Social support and self-efficacy during early adolescence: Dual impact of protective and promotive links to mental health and wellbeing. PLOS Global Public Health, 4(12). https://doi.org/10.1371/JOURNAL.PGPH.0003904
- de Looze, M. E., Huijts, T., Stevens, G. W. J. M., Torsheim, T., & Vollebergh, W. A. M. (2022). The decline in adolescent substance use across Europe and North America in the early twenty-first century: A result of the digital revolution? International Journal of Public Health, 67, 1604262. https://doi.org/10.3389/ijph.2022.1604262
- Dirzyte, A., & Perminas, A. (2021). Links between subjective health , wellbeing , and psychological capital in adolescents ' sample. Bulletin of Environment, Pharmacology and Life Sciences, 10(8), 111–119. https://www.researchgate.net/profile/Aiste-Dirzyte-2/publication/355485511_Links_between_subjective_health_wellbeing_and_psychological_capital_in_adolescents'_sample/links/633a7994ff870c55cef5fc38/Links-between-subjective-health-wellbeing-and-psychologica
- Ey, S., Hadley, W., Allen, D. N., Palmer, S., Klosky, J., Deptula, D., Thomas, J., & Cohen, R. (2005). A new measure of children's optimism and pessimism: the youth life orientation test. Journal of Child Psychology and Psychiatry, 46(5), 548–558. https://doi.org/10.1111/J.1469-7610.2004.00372.X
- Finch, J., Farrell, L. J., & Waters, A. M. (2020). Searching for the HERO in Youth: Does Psychological Capital (PsyCap) Predict Mental Health Symptoms and Subjective Wellbeing in Australian School-Aged Children and Adolescents? Child Psychiatry and Human Development, 51(6), 1025–1036. https://doi.org/10.1007/S10578-020-01023-3
- Finch, J., Waters, A. M., & Farrell, L. J. (2023). Developing the HERO within: Evaluation of a brief intervention for increasing Psychological Capital (PsyCap) in Australian female students during the final year of school in the first year of COVID-19. Journal of Affective Disorders, 324, 616–623. https://doi.org/10.1016/j.jad.2022.12.169
- Garcia, M., Carmenaty, D., … R. R.-P.-J. of U., & 2020, undefined. (n.d.). Differences in Psychological Capital Factors (Self-Efficacy, Hope, Optimism, and Resilience) Between Latinx Students Enrolled in an After-school 4-H Program at a. Journals.Tdl.Org. Retrieved June 9, 2025, from https://journals.tdl.org/ugei/index.php/ugei/article/view/40
- Gujar, N., & Ali, A. (2019). Effects of psychological capital and self-esteem on emotional and behavioral problems among adolescents. Journal of Mental Health and Human Behaviour, 24(2), 85. https://doi.org/10.4103/jmhhb.jmhhb_59_19
- Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. Applied Psychology, 50(3), 337–421. https://doi.org/10.1111/1464-0597.00062)
- Hu, W., Cheng, Y., & Du, R. (2022). Effects of Overt and Relational Bullying on Adolescents' Subjective Well-Being: The Mediating Mechanisms of Social Capital and Psychological Capital. International Journal of Environmental Research and Public Health, 19(19), 11956. https://doi.org/10.3390/ijerph191911956
- John, B., & Menon, P. (2024). Can the Western-Based Psychological Capital Intervention Improve Mental Health in the Indian context? A Pilot Study among Female College Students in. Indian Journal of Preventive & Social Medicine, 55(4), 391–399.

http://ijpsm.co.in/index.php/ijpsm/article/download/631/154
- Kaur, J., & Amin, S. (2017). Psychological capital and stress among school students. Indian Journal of Positive Psychology, 8(4), 495–499. https://doi.org/10.15614/ijpp/2017/v8i4/165838
- Kessler, R. C., Demler, O., Frank, R. G., Olfson, M., Pincus, H. A., Walters, E. E., Wang, P., Wells, K. B., & Zaslavsky, A. M. (2005). Prevalence and Treatment of Mental Disorders, 1990 to 2003. New England Journal of Medicine, 352(24), 2515–2523. https://doi.org/10.1056/NEJMSA043266/ASSET/B395F77C-ED66-4BC8-B007-461584E78E58/ASSETS/IMAGES/LARGE/NEJMSA043266_T2.JPG
- King, R. B., & Caleon, I. S. (2021). School Psychological Capital: Instrument Development, Validation, and Prediction. Child Indicators Research, 14(1), 341–367. https://doi.org/10.1007/s12187-020-09757-1
- King, R. B., Pitliya, R. J., & Datu, J. A. (2020). Psychological capital drives optimal engagement via positive emotions in work and school contexts. Asian Journal of Social Psychology, 23(4), 457–468. https://doi.org/10.1111/ajsp.12421
- Luthans, F., Youssef, C., & Avolio, B. J. (2007a). Psychological capital: Investing and developing positive organizational behavior. Positive Organizational Behavior, 1(2), 9–24. https://www.torrossa.com/gs/resourceProxy?an=4912627&publisher=FZ7200#page=22
- Luthans, F., Youssef, C. M., & Avolio, B. J. (2007b). Psychological capital: Developing the human competitive edge. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780195187526.001.0001
- Luthans, F., & Youssef-Morgan, C. M. (2017). Psychological capital: An evidence-based positive approach. Annual Review of Organizational Psychology and Organizational Behavior, 4(1), 339–366. https://doi.org/10.1146/ANNUREV-ORGPSYCH-032516-113324
- Luthar, S., & Cicchetti, D. (2000). The construct of resilience: Implications for interventions and social policies. Development and Psychopathology, 12(4), 857–885. https://www.cambridge.org/core/journals/development-and-psychopathology/article/construct-of-resilience-implications-for-interventions-and-social-policies/FB0F35A81AD0C3332078FE8C13D403A0
- Marques, S. C., Pais-Ribeiro, J. L., & Lopez, S. J. (2011). The role of positive psychology constructs in predicting mental health and academic achievement in children and adolescents: A two-year longitudinal study. Journal of Happiness Studies, 12(6), 1049–1062. https://doi.org/10.1007/s10902-010-9244-4
- Masten, A. S. (2014). Ordinary magic: Resilience in development. Guilford publications. https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Masten%2C+A.+S.+%282014%29.+Ordinary+magic%3A+Resilience+in+development.+Guilford+Press.&btnG=
- Melese, A. K., Pedro, A., & Somhlaba, N. Z. (2024). The direct effect of basic need services, and social support on positive mental health among institutionalized children: the mediating role of psychological capital. Current Psychology, 43(35), 28544–28557. https://doi.org/10.1007/s12144-024-06493-5
- Munawer, I., Jahan, M., & Khan, A. (2021). Exploring psychological capital as predictor of mental health among graduate-level students. The International Journal of Indian Psychology, 9(2), 678–687.
- https://www.academia.edu/download/93600945/18.01.072.20210902.pdf
- Patton, G. C., Sawyer, S. M., Santelli, J. S., Ross, D. A., Afifi, R., Allen, N. B., ..., & Viner, R. M. (2016). Our future: A Lancet commission on adolescent health and wellbeing. The Lancet, 387(10036), 2423–2478. https://doi.org/10.1016/S0140-6736(16)00579-1
- Pine, D. S., Wise, S. P., & Murray, E. A. (2021). Evolution, emotion, and episodic engagement. American Journal of Psychiatry, 178(8), 701–714. https://doi.org/10.1176/appi.ajp.2021.20101410
- Rao, P., Jain, K., & Manglani, A. (2020). Growth mindset training: An empirical verification of its efficacy over psychological capital of tribal adolescents. Wesleyan Journal of Research, 13(45), 104–116. https://www.researchgate.net/publication/359815780_Growth_Mindset_Training_An_Empirical_Verification_of_its_Efficacy_over_Psychological_Capital_of_Tribal_Adolescents
- Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. Journal of Personality and Social Psychology, 69(4), 719–727. https://doi.org/10.1037/0022-3514.69.4.719
- Sabouripour, F., Roslan, S., Ghiami, Z., & Memon, M. A. (2021). Mediating Role of Self-Efficacy in the Relationship Between Optimism, Psychological Well-Being, and Resilience Among Iranian Students. Frontiers in Psychology, 12, 675645. https://doi.org/10.3389/fpsyg.2021.675645
- Sarkar, S., & Others. (2017). Life skills empowerment: Impact on resilience and psychological well being of school going adolescents in West Bengal, India. Child & Youth Resilience Studies, 742.
- Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: assessment and implications of generalized outcome expectancies. Healthy Psychology, 4(3), 219–247. https://doi.org/10.1037/0278-6133.4.3.219
- Schunk, D. H., & DiBenedetto, M. K. (2020). Motivation and social cognitive theory. Contemporary Educational Psychology, 60, 101832. https://doi.org/10.1016/j.cedpsych.2019.101832
- Schwarzer, R., & Jerusalem, M. (1995). Generalized self-efficacy scale. Measures in Health Psychology: A User's Portfolio. Causal and Control Beliefs, 35–37. https://www.religiousforums.com/data/attachment-files/2014/12/22334_285ebbd019ec89856493442b1b6f9154.pdf
- Snyder, C. R., Hoza, B., Pelham, W. E., Rapoff, M., Ware, L., Danovsky, M., Highberger, L., Rubinstein, H., & Stahl, K. J. (1997). The development and validation of the Children's Hope Scale. Journal of Pediatric Psychology, 22(3), 399–421. https://doi.org/10.1093/JPEPSY/22.3.399
- Snyder, C., Rand, K., & Sigmon, D. (2002a). Hope theory. In C. R. Snyder & J. L. Shane (Eds.), Handbook of positive psychology (pp. 257–276). Oxford University Press.
- Snyder, C., Rand, K., & Sigmon, D. R. (2002b). Hope theory. In C. R. C. R. Snyder & S. J. Lopez (Eds.), Handbook of positive psychology (pp. 257–276). Oxford university press. https://books.google.com/books?hl=en&lr=&id=2Cr5rP8jOnsC&oi=fnd&pg=PA257&dq=Snyder+et+al.+(1991)+-+Hope+Theory+(Snyder+CR,+Rand+KL,+Sigmon+DR.+Hope+theory.+Handbook+of+positive+psychology.+2002%3B257:276.)&ots=enG4gAyBXZ&sig=Ewvpu2qbscuEmsbYWRdVLgS1AgU
- Song, R., & Song, L. (2021). The Dampen Effect of Psychological Capital on Adolescent Depression: a Moderated Mediation Model. Current Psychology, 40(1), 56–64. https://doi.org/10.1007/s12144-020-00626-2
- Spear, L. P. (2000). Neurobehavioral changes in adolescence. Current Directions in Psychological Science, 9(4), 111–114. https://doi.org/10.1111/1467-8721.00072
- Sutton, A., & Roemer, A. (2024). A-HERO: Integrating authenticity into the psychological capital model. International Journal of Applied Positive Psychology, 9(2), 1059–1081. https://doi.org/10.1007/S41042-024-00171-4
- Wagnild, G., & Collins, J. A. (2009). Assessing resilience. Journal of Psychosocial Nursing and Mental Health Services, 47(12), 28–33. https://doi.org/10.3928/02793695-20091103-01
- Wang, H., Ng, T. K., & Siu, O. ling. (2023). How does psychological capital lead to better well-being for students? The roles of family support and problem-focused coping. Current Psychology, 42(26), 22392–22403. https://doi.org/10.1007/s12144-022-03339-w
- World Health Organization. (2020). Adolescent mental health. https://www.who.int/news-room/fact-

sheets/detail/adolescent-mental-health
- Xiong, J., Hai, M., Wang, J., Li, Y., & Jiang, G. (2020). Cumulative risk and mental health in Chinese adolescents: The moderating role of psychological capital. School Psychology International, 41(5), 409–429. https://doi.org/10.1177/0143034320934524
- Yarhosseinei, M., Avari, N., Shirazi, S., Hadadian, M., Javidan, L., & Mousavi, S. (2022). The Efficacy of Psychological Capital Intervention (PCI) on mental health and subjective well-being in Adolescences. Preventive Counseling, 3(4), 71–82. https://doi.org/10.22098/JPC.2022.10588.1096
- Zimmerman, B. J., & Cleary, T. J. (2006). Adolescents' development of personal agency: The role of self-efficacy beliefs and self-regulatory skill. In F. Pajares & T. C. Urdan (Eds.), Self efficacy Beliefs of Adolescents (pp. 45–69). Information Age Publishing.