Migration Letters

Volume: 21, No: S8 (2024), pp. 311-337

ISSN: 1741-8984 (Print) ISSN: 1741-8992 (Online)

www.migrationletters.com

Research Development Of Psychological Capital (Psycap) In Education Sector - A Systematic Review

Nayyer Sultana¹, Azlinzuraini Ahmad (corresponding author)², Nur Aishah Awi³

Abstract

Purpose: This comprehensive review aims to explore the evolution of concepts, research methods and significant findings related to Psychological capital in the field of education over the decade. Psychological capital, which encompasses hope, efficacy, resilience and optimism has gained attention in research due, to its potential impact on students, educators and overall learning outcomes.

Design/methodology/approach: This comprehensive literature review, which adheres to the PRISMA guidelines examines research conducted for development of psychological capital in education sector over the last one decade. Its objective is to uncover emerging patterns assess methodologies used and pinpoint areas where knowledge is lacking. Through criteria, for selection and data synthesis techniques this study offers insights into the latest developments, in the field.

Findings By analyzing the last 10 years literature this review sheds light on the role of psychological capital in education while highlighting methodological trends synthesizing empirical findings and providing recommendations for future research and practical application. In times there has been a surge of interest in Psychological capital and its ability to enhance performance and wellbeing for individuals and organizations

Originality: The main objective of this review is to examine current research on the development of psychological capital and its implications for individuals as well, as organizations. Researchers and practitioners alike are fascinated by PsyCap's connection to employee attitudes, behavior and performance. Consisting of four elements. Self-efficacy, hope, optimism and resilience. PsyCap has emerged as a catalyst for improving performance.

Keywords Psychological Capital, Systematic Literature Review, PRISMA guidelines.

Introduction

The education sector holds significance, for society as it shapes the future of individuals, communities and nations (Murtaza & Hui, 2021). To ensure the success of the education sector we must rank facto¹rs like teachers, a learning environment and adequate resources (Siahaan et al., 2022). Nonetheless one crucial aspect that often goes unnoticed is Psychological capital (PsyCap) which plays a role in educational achievement (Martínez et al., 2019; Wang et al., 2021). PsyCap encompasses traits such as self-assurance, optimism, hopefulness and resilience (Luthans & Youssef Morgan 2017; Wirawan et al. 2020;

¹Ph.D Scholar; Faculty of Business, Economics and Social Development Universiti Malaysia Terengganu 21030 Kuala Nerus Terengganu, Malaysia.

²Faculty of Business, Economics and Social Development Universiti Malaysia Terengganu 21030 Kuala Nerus Terengganu, Malaysia.

³Faculty of Business, Economics and Social Development Universiti Malaysia Terengganu 21030 Kuala Nerus Terengganu, Malaysia.

Luthans et al., 2019; Saman & Wirawan, 2021; Schaubroeck et al. 2011; Djourova et al. 2019; Huang et al., 2018; Wang et al. (2021)). These qualities significantly influence success and overall well-being across fields including education (Zhao et al., 2022; Snyder et al., 2002; Soares Marques et al., 2021; Vilariño et al., 2022). Psychological capital holds importance as an intangible strategic asset, for organizations allowing them to gain a sustainable competitive advantage in today's ever changing business landscape (Le and Lei 2019; Tefera and Hunsaker 2021). It signifies a growing trend, towards adopting methods to effectively manage and nurture an organizations resources (Le, 2020).

The organizations in education sectors are facing challenge when it comes to providing employees with resources that can improve their psychological well being and effectiveness at work. To tackle this challenge numerous studies have been conducted to create interventions that boost employees resources, strengths and competencies. Among these resources PsyCap plays a role in supporting individual and organizational performance (Burhanuddin et al.,2019; Arsjad & Dasan, 2022). Currently there has been a lot of attention given to the importance of building Psychological Capital (PsyCap) among employees especially in education sector (Arsjad & Dasan, 2022; Saman & Wirawan, 2021; Luthans et al., 2019). Research shows that enhancing PsyCap is strongly linked to performance, at work including increased engagement, satisfaction and motivation.

Recognizing the impact of fostering PsyCap in organizations it has also become relevant for educators and individuals working. These individuals face challenges such as stress, burnout and lack of motivation due to workloads(Wang et al., 2021; Arsjad & Dasan, 2022; Saman & Wirawan, 2021; Luthans et al., 2019). Therefore according to Tosten & Toprak, (2017) nurturing PsyCap has become crucial for educators to improve their job performance and ultimately influence outcomes for students. The need to cultivate PsyCap goes beyond improving work related results; it also aims to enhance well-being while mitigating the negative effects of workplace challenges and demanding schedules. While existing research consistently highlights the benefits of developing PsyCap there is still a gap in understanding its application within settings since most studies focus on other sectors.

As a result it is important to investigate how developing PsyCap can impact individuals in contexts of education sector. This study aims to examine the effects of PsyCap development on people in these settings and its potential contribution to outcomes. Despite some existing research on PsyCap further investigation is necessary to grasp its development and execution, within contexts of education. Therefore, it is crucial to conduct a review of existing literature in order to fill this gap, in knowledge. Through this review we can enhance our understanding of how PsyCap impacts individuals within settings and compare it with observations in contexts. Moreover this review will identify areas where research is lacking and provide insights for studies. As a result, the primary goal of this research is to examine current literature on PsyCap development inside educational institutions at various levels.

Concept of Psychological Capital or (PsyCap)

The concept of psychological capital (PsyCap) was first introduced by Fred Luthans, an expert in organizational behavior along with Carolyn M. Youssef and Bruce J. Avolio during the early 2000s (Luthans and Morgan 2017; Aftab et al. 2018). Since then PsyCap has gained attention as an area of study and application due to its emphasis on psychological resources for improving performance and well-being, among individuals and organizations (Wang et al., 2021; Arsjad & Dasan, 2022; Saman & Wirawan, 2021; Luthans et al., 2019; Alias et al., 2020).

The assessment of PsyCap measures an individual's inclination towards destructive behaviors. A person who has the quality of positive psychological capital (Mao et al., 2021) and acts as a valuable individual with motivation and has a great influence on the effectiveness and successes of an organization (Le, 2020; Yu et al., 2019). One way to

determine someone PsyCap is by observing if they engage in behaviors such as smoking or excessive drinking (Kun and Gadanecz 2019). By developing intelligence PsyCap helps employees build resilience and motivation when faced with challenges. This in turn promotes creativity and innovation within the organization leading to success. A deep comprehension of psychological capital is essential for enhancing both individual and organizational performance. Additionally, a positive PsyCap adopts a stimulating work environment that keeps the profit and nonprofit organizations ahead of competitors while aligning employees efforts, with the organizations goals (Al Ghazali et al., 2021).

Psychological Capital, also known as PsyCap is a combination of four resources; Hope, Optimism, Self Efficacy and Resilience. These resources come together. Interact, in a way resulting in different expressions over time and in various situations (Luthans and Youssef Morgan, 2017). Research consistently highlights the importance of nurturing ones PsyCap to enhance job performance and achieve outcomes. PsyCap represents qualities like self-efficacy, optimism, hope and resilience that empower employees to navigate their work environments effectively.

One interesting characteristic of psychological capital is its capacity to adapt and be measured making it similar, to a "state." PsyCap according to Luthans (2002) refers to the exploration and application of human resource strengths and psychological capacities that can be quantified developed and effectively handled in order to enhance performance in todays' workplace. This concept originated from the psychology movement started by Martin Seligman (Biricik,2020; Alias et al.,2020). PsyCap, according to Luthans (2002), is a notion that extends beyond knowledge, relationships, and possessions (Luthans et al., 2019). Instead it focuses on one's growth journey – who you're, as an individual. It encompasses four aspects; hope, optimism, resilience and self-efficacy.

Self-Efficacy

According to Bandura (1997) and Stajkovic and Luthans (1998), self-efficacy is a belief that an individual has in their capacity to complete difficult tasks by making use of the required tools and acting appropriately. High self-efficacy people are capable of taking on challenging tasks, successfully using cognitive resources, and overcoming challenges (Maddux, 2016). While substantial theory and research have both conceptualized and tested self-efficacy as a condition. Other research has demonstrated its domain-specific nature and develop ability, highlighting its state-like properties (Maddux and Kleiman, 2016). Researchers have looked at the connections between self-efficacy and numerous aspects of the workplace, including leadership creativity and job effectiveness (Cavazotte et al., 2013).

Optimism

In terms of positive psychology, optimism refers to a person's propensity to place the responsibility for good things happening to themselves and to keep a distance from bad things happening to them (Çavuş and Gökçen, 2015). This type of positive attribution inspires optimistic people since it strengthens their will and aids them in overcoming difficulties (Patnaik, 2021). Optimism includes an external component, in contrast to self-efficacy and hope, which largely concentrate on internal viewpoints. While optimism may have a dispositional component, the fact that it may be fostered through focused interventions suggests that optimism is more like a mood (Kwok et al., 2015). Researchers have shown that optimism demonstrates empirical discriminant validity and conceptual independence (Krafft et al., 2021). Optimism has been demonstrated to predict a number of favorable outcomes in the workplace, including leadership effectiveness and job success. The one that was developed is the one that is most frequently used to gauge optimism (Oosthuizen, 2021).

Hope is seen as a tool that involves setting goals and having the determination to work towards them being willing to adapt and pivot as needed to achieve success. People are inspired by levels of hope because they believe they can find ways to accomplish their goals (Duncan et al., 2021). Snyders theory emphasizes the potential, for hope to grow through interventions highlighting its nature. Research by Fowler et al.(2017) Supports the idea that hope's unique and can be reliably measured. Recent studies have emphasized the significance of hope in settings showing its connection to performance ratings from supervisors and organizational success.

Resilience

Resilience is described as a trait that empowers individuals to overcome challenges bounce back, from failures and thrive under pressure(Janas, n.d.; Peterson S. & Luthans F., 2003). Than avoiding difficulties resilience involves facing them head on and recognizing their reality(Murden et al., 2018). When confronted with obstacles resilient individuals draw strength from a belief system rooted in self confidence, optimism and a sense of purpose providing them with stability and drive (Parkash and Kumar, 2016). Facing reality is an aspect of being resilient. Of avoiding challenges resilient individuals. Confront them. According to a study, by Yoon et al. (2020) resilience is not something you are born with; it's a skill that can be learned through methods. Research by Santoro et al. (2021) highlights a link between employee resilience and job satisfaction and performance during times of organizational change. Resilient employees adapt to changes recover from setbacks and maintain productivity contributing to a work environment (Seibert et al., 2016). By offering training programs focusing on coping strategies, intelligence and stress management organizations can help their employees cultivate resilience leading to an agile and effective workforce. Resilience is a trait that enables individuals to navigate challenges successfully in both personal and professional settings (Hartung and Cadaret 2017).

Psychological capital outcomes

Prior research has identified associations between Psychological capital and multiple factors, such as job commitment, leadership, job satisfaction (Biricik, 2020; Zhao et al., 2020), job performance, innovative work behaviour (Arsjad & Dasan, 2022), anxiety levels, perceived stress levels (Mutonyi, 2021; Liao et al., 2022; Othman, 2021), coping abilities, well-being, and seeking behaviour (Golparvar, 2013). Furthermore scholars suggest that psychological capital plays a role, in enhancing the value of individuals knowledge and skills well as their social connections (Biricik, 2020; Zhao et al., 2020). The effectiveness lies in tackling hurdles by nurturing psychological foundations, like optimism and self confidence (Luthans et al., 2019). Previous research has highlighted the connection between Psychological capital and the workplace environment along with organizational aspects(Mutonyi, 2021; Liao et al., 2022; Othman, 2021). Recent reports suggest that psychological capital plays a role in overcoming challenges and enhancing employee skills (Arsjad & Dasan 2022; Wang et al., 2021; Madden, 2013; Carter & Youssef Morgan 2022). Viseu and colleagues conducted a study on the correlation between Psychological capital and motivation among teachers. They found a link between these factors in their research. The team concluded that job satisfaction plays a role in motivating educators emphasizing that fostering assets among teachers contributes to job contentment thereby boosting motivation. Another simultaneous study assessed how the components of psychological capital relate to teacher effectiveness(Agarwal (2019). The results indicate a connection between Psychological capital and teaching proficiency with higher levels of Psychological capital linked to enhanced teaching skills. This relationship encompasses outcomes such, as increased motivation, contentment, commitment and better stress management abilities.

Several academic research papers have delved into the Psychological capital (PsyCap) of leader which have uncovered indications of how it indirectly influences the outcomes of

their followers. In a study, by Agarwal (2019) it was revealed that the PsyCap of followers played a role in moderating the connection between leaders expressed PsyCap and their followers performance in tasks. Similarly Chen (2015) found that the presence of followers PsyCap acted as a mediator, in linking leaders PsyCap to their followers level of engagement at work in a research project.. Rebelo et al. (2018) discovered that followers' psychological capital (PsyCap) mediated the association between leaders' PsyCap and followers' work performance.

Reviewing methodology

To achieve the goals of this review we followed an approach that involved steps. Firstly we established criteria, for selecting and excluding articles. Then we conducted a search to find literature using a well defined strategy. Next we extracted data from the selected studies to assess their quality. Finally, we. Interpreted the findings to draw conclusions (Burhanuddin et al.,2019; Mutonyi, 2021; Carter & Youssef-Morgan, 2022). To clarify the scope of this review when referring to an " organization " we mean all individuals who're part of the organizational structure such, as teacher's, lecturers, students and administrative staff members.

Criteria for Inclusion and Exclusion

To ensure that the studies selected for this review were appropriate we followed a process that involved adhering to defined inclusion and exclusion criteria. You can find an outline of these criteria in **Table 1.**

Inclusion	Exclusion
Is the research topic and scope relevant to the research question?	The research's topic and scope are irrelevant.
Research questions are relevant to concepts and term definitions.	Concepts and term definitions have little bearing on the study questions.
Observations, case-studies, experimental-studies, empirical research, reporting on the state of the topic relevant to the research questions, qualitative and quantitative studies, theoretical and conceptual frameworks are all examples of research methods.	Articles such as concept papers and proposals that lack a clear research design

Table 1Criteria for Inclusion and Exclusion

Articles on administrators, students, teachers,	Studies on those outside of the
business workers, industry, organizations and	educational system, industrial and
entrepreneurship.	business
Published Articles till 2022	

Search Strategy

To cover a range of sources we conducted a comprehensive search, across multiple electronic databases. Notably we utilized databases like Scopus, EBSCOhost, Emerald and Web of Science. Our search included articles published from 2013 to 2022 with an emphasis, on articles written in English. After completing the search process we obtained a total of 230 publications. We then thoroughly assessed each publications relevance which resulted in excluding 95 publications that were irrelevant . The remaining 135 publications were chosen for review. In the Scopus database out of the 80 items searched we found that 55 articles met our search criteria. The search targeted keywords closely linked to "Psychological capital" or "Psychological capital development.' **Table 2** presents a summary of the search details from databases highlighting the number of items searched and the corresponding relevant articles obtained from each database.

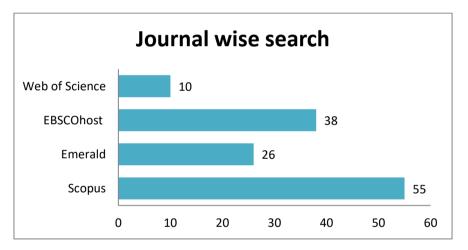
Table 2:

Search Details

Databases	Subheadings and key words used	Articles	Articles
searched		searched	identified
Scopus	Psychologicalcapital / PsyCap in	80	55
	educational system and organizations		
	Psychologicalcapital Interventions/		
	PsyCap in academic organization AND		
	teachingstaff Psychologicalcapital /		
	PsyCap AND Students		
EBSCOhost	Psychologicalcapital/ PsyCap	60	40
	Psychologicalcapital/PsyCap in		
	HEIs/PsyCap AND research development		
	Psychologicalcapital/PsyCap and its		
	antecedents		
Emerald	Psychologicalcapital/ PsyCap	55	28
	Psychologicalcapital/ PsyCap in academic		
	organizations and teaching staff		
	Interventions to Enhance		
	PsychologicalCapital		
Web of	Psychological capital/Psycap	35	12
Science			

For EBSCOhost we discovered 40 articles from a list of 60 search results whereas Emerald database out of the 55 items searched we identified 28 articles that were pertinent, to our study. Finally when using Web of Science we came across 12 articles that were relevant, out of the search for 35. These findings lay the groundwork for our research, on Psycholagical capital that How it impacts educational environments. Researchers carefully examined studies using a step, by step approach which followed PRISMA flow diagram by Welchet al., (2016). Figure 1 showcases a flow chart that outlines the stages of our search inspired by the PRISMA flow diagram. Initially we assessed the titles and abstracts of 230 publications to determine their relevance to our research. However we found that 95 of them were unrelated to our inquiry and thus excluded them from consideration. Due to the specific reasons the articles were not include in our review. To start with, we omitted articles that used individual tools or measures to assess hope, optimism, self efficacy and resilience since our focus was on studies that utilized the PsyCap instrument as comprehensive . Additionally we excluded articles written in languages, than English from our consideration.

There were 06 duplicates articles out of 135 records, leaving 129 articles acceptable for thorough screening.(Figure 1) Fortunately all 129 articles met our review criteria. Among these based on the inclusion criteria there were 14 Quantitative studies and 115 qualitative studies that we analyzed and synthesized the data from. Figure 1:



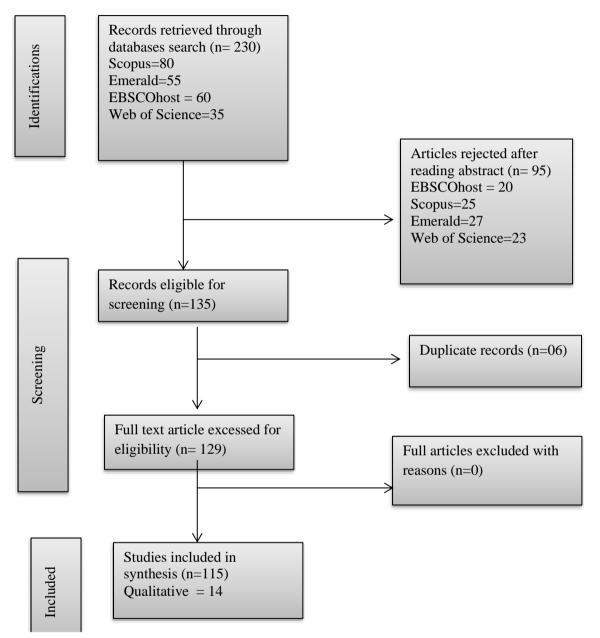
Journal wise publication of Reviewed Articles on Psychological Capital

Data Extraction

After identifying the relevant documents for review, the next step was data extraction. The review questions we had predefined determined the specific types of data to be extracted (Mara-Eves et al., 2015). Our systematic review aims to combine findings from multiple studies to gain a comprehensive understanding of how psychological capital (PsyCap) is developed and utilized in educational settings. Hence it is important to gather information from the articles such, as the people involved where the study took place how it was conducted what interventions were used and what were the outcomes obtained.

Figure 2

Flow chart of the selection of studies



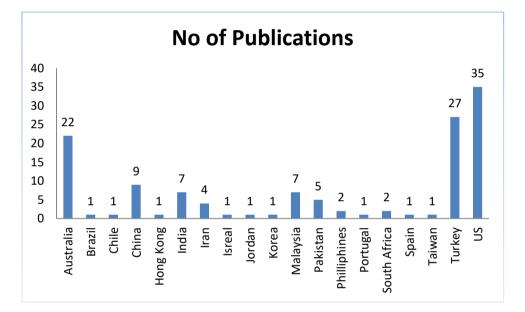
Flow chart of the selection of studies conforming with the PRISMA statement.

Source: Adapted from (Welchet al., 2016)

Findings of the Reviewed Articles

The review covered aspects, including the number of articles published (**Figure 3**)over a ten year period, where these articles were published globally the different factors related to psychological capital that were studied the characteristics of the study participants sample sizes, research methodologies used and the measurement tools used to extract the results. Out of a total of 129 articles reviewed USA contributed thirty five publications, making it the prolific contributor. Turkey followed behind ranking second in terms of publications, on psychlogical capital within educational institutions. A significant number of studies on PsyCap, in settings originate from other countries. Figure 3

Country wise publication of Articles on Psychological Capital



According to the findings of this investigation, Pakistan has a total of five publications in the field of education, whereas Malaysia has seven publications in this same field. The disparity in the number of publications published reveals a need for further research in the field of education, particularly concerning the analysis of the varying contributions made by various variables, notably in the teaching staff of public and private universities.

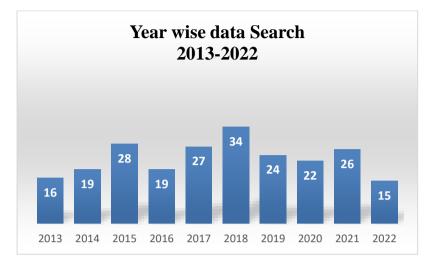


Figure 4 Year wise Publication - Last 10 Years

Upon analyzing the timeline of publications in Figure 4, it becomes evident that there was a rise, in the number of articles from 2013 to 2014. However there was a decrease in 2022 compared to the following years. Interestingly 2018 saw the volume of publications during the ten year review period. It is worth noting that a significant number of articles emerged in 2015 and 2017. Based on the collection of analyzed articles it is evident that there has been attention given to performance, in relation to PsyCap (Schaufeli et.al., 2018; Datu et al., 2016; Luthans et al., 2016; Salanova et.al., 2018; Jiang et.al., 2014; Arsjad,& Dasan, 2022; Luthans et al., 2019, Martínez et al. ;2019, Luthans & Chaffin, 2019). In addition to performance researchers have also shown interest in studying stress levels among both teachers, lecturers and students concerning PsyCap (Rodrigues et al., 2017; Wang et.al., 2021; Yong & Yang, 2022 Gautam & Pradhan 2018; Xuei et.al., 2022; Kaur & Amin 2017; Kaur & Sandhu 2016) and the combined findings of these articles indicate a relationship between PsyCap and stress levels. The studies endorsed and suggest that PsyCap plays a role in moderating the connection between stress and academic achievement. According to Rodrigues et al.(2017) studies on teachers indicate that higher levels of PsyCap are associated with lower ratings of nervousness, hopelessness and stress furthermore PsyCap seems to act as a factor against these symptoms

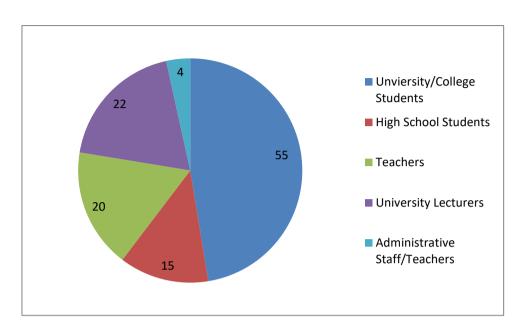
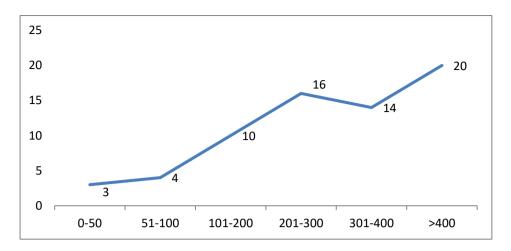


Figure 5: Population used for the reviewed Articles

The synthesized results from the reviewed articles highlight a link between PsyCap and positive outcomes while also demonstrating an association with detrimental factors, like stress and burnout. **Figure 5** presents a comprehensive overview of the research samples pertaining to PsyCap in educational settings, including schools and other learning institutions. The presented data indicates that a total of 55 papers have centered their research on university/college students, whilst 15 studies have specifically examined high school students. Moreover, the analysis revealed that just 22 publications were specifically focused on university lecturers, highlighting the dearth of scholarly investigations pertaining to this particular population of educators in both public and private higher education institutions. Consequently, there exists a pressing imperative to conduct further research on the teaching faculty within these educational institutions.

When evaluating PsyCap and related factors, the review found a pattern in research where a large percentage of them employed sample sizes (as indicated in **Figure 6**) 400 participants. This suggests an aptitude for methods that focus on results rather than in-depth qualitative inquiry. Only 14 of the papers analyzed chose to pursue an approach emphasizing the importance of qualitative research efforts in PsyCap.

Figure 6: Sample Size- Reviewed Articles



In order to measure PsyCap, scholars typically employ validated scales or measures that have undergone rigorous scientific scrutiny. The Psychological Capital Questionnaire (PCQ), which was developed by Luthans et al. (2007), is a widely used self-report instrument for assessing Psychological Capital (PsyCap). The questionnaire consists of 24 items, with six items dedicated to each of the four components of PsyCap: self-efficacy, hope, optimism, and resilience. The participants in the study are asked to indicate their level of agreement with a range of statements by employing a Likert scale. The tool can serve as a way of self-evaluation as well as a multi-rater assessment, wherein the self-assessment of the target individual and the evaluations provided by those who assess the target individual's Psychological Capital (PsyCap) are taken into account. The Psychological Capital Questionnaire-12 (PCQ-12) is a condensed iteration of the PCQ, designed to evaluate the four dimensions of Psychological Capital (PsyCap).

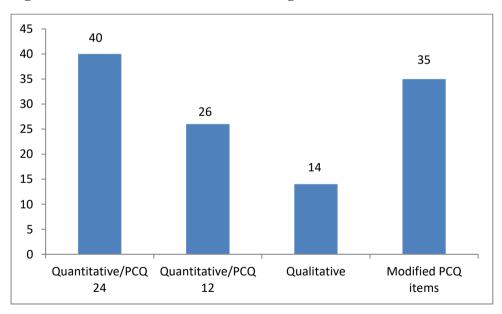


Figure 7: Instrument used for Research design- Reviewed Articles

Figure 7 presents an illustration of the number of papers that have made use of the instrument that was developed by Luthans et al. (2007) or its modified versions. Appendix-1 shows some of the reviewed literature from last one decade for this SLR where the design, approach software used to analysis, sample size sampling methodology, instruments used to assess and main findings of the publication.

Table 3: Appendix -1:

Author/Year of Publication /Country	Design/Approach/ Software	Sample Size/Participants/ Sampling Method	Instruments/Measurements	Key Findings
Farrokhnejad & Hosseini (2016) Swizerland	Cross-sectional. Descriptive-survey research - SPSS 22	1324 Teachers Stratified random sampling method	PCQ 24	Positive and significant relationship between psychological capital and productivity - Psychological capital can explain 15% of the variance in productivity
Martínez et al. (2019) Spain and Portugal	Cross-sectional. Quantitative and correlational study Structural equation modeling (SEM) with AMOS 22	632 under graduate Students	PCQ 24	PsyCap resources are positively related to academic performance PsyCap promotes engagement in university students.
Luthans & Chaffin(2019) India and Romania	Cross-sectional. Descriptive-survey research	176 Business Students	PCQ 12	psychological capital (PsyCap) largely mediates the relationship between grit and student academic performance
Wang et al. (2021) China	Cross-sectional. Cross sectional and descriptive SPSS 20.0 and AMOS software	733 Nursing Students	Modified PCQ items	The role of academic engagement was found to somewhat moderate the association between psychological capital and academic burnout.
Mutonyi. (2021) Norway	Cross-sectional.	250 empolyees of Norway university Using web based Survey	PCQ 24	PsyCap and PsyEmp have a direct positive relationship with

	Quantitative and correlational study. SmartPLS 3.0	Non randaom sampling method		innovative work behavior of the employees.
Carter & Youssef-Morgan (2022)	Cross-sectional. Quantitative SPSS 22 and LISREL 8.8	297 university empolyees		The study compared the effectiveness of three delivery modes for psychological capital interventions (PCIs) for to form
USA	software		PCQ 24	interventions (PCIs): face-to-face, online, and micro-learning1.
Othman (2021) Malaysia		seconday data used		comparison of 3 delivery modes of
	Conceptual Cross-sectional.			psychological capital interventions
Saman & Wirawan (2021) India	Quantitative using cluster random sampling and simple random sampling SPSS software	1670 University students and university staff	РСО	The negative effect of PsyCap on students' procrastination was stronger when students had low conscientiousness compared to high conscientiousness.
Liao, Liu & Li (2022) Austalia	Cross-sectional. Quantitative and correlational study SPSS 22.0 and AMOS 23.0	525 Teachers	PCQ	Psychological capital has a positive effect on attitudes toward academic entrepreneurship.
Aftab, Rashid, & Ali Shah (2018) Pakistan	Cross-sectional. Quantitative and correlational study SPSS 22.0 and AMOS 23.0 software	440 University teachers	PCQ-12	Extraversion and conscientiousness significantly and positively predicted organizational citizenship behavior among university teachers.

Tosten & Toprak (2017) Turkey	Cross-sectional. Quantitative and correlational study through SPSS software	266 School teachers random sampling method	Modified PCQ items	The study found that teachers' psychological capital competencies have an impact on their tendency to display emotional labor behaviors.
Alias et al. (2020) Malaysia	Cross-sectional. Quantitative SPSS 22.0	250 college staff	Modified PCQ items	Psychological capital, specifically self-efficacy, predicted job performance Psychological capital significantly improved job performance and satisfaction. The best predictor of
Biricik (2020) Turkey	Cross-sectional. Quantitative SPSS software.	122 University teachers from different provinces of	PCQ 24	both outcomes was self-efficacy. The report advised higher education institutions to promote psychological development among teachers.l
Zhao et al.(2020) China	Cross-sectional. Quantitative structural equation modeling (SEM)	1914 university Students	PCQ-12	The paper reveals that PC has a mediating effect on college students' EI in China by influencing social, human, and economic capital
Akhtar & Khan(2019) Pakistan	Cross-sectional. Quantitative SPSS	101 Faculty and staff of university	Q 24	Positive central constructs of psychological capital have been demonstrated to be related to various employee attitude, behavioral, and performance outcomes.
Pan et al. (2015) China	Longitutdanal Quantitative NA	1500 faculty of universities stratified random sampling method NA	2	The dose administered included Minnesota Satisfaction Questionnaire (MSQ), perceived organizational support (POS), psychological capital

				questionnaire (PCQ-24), and effort reward imbalance scale (ERI)
Demerath et al. (2018) USA	Cross-sectional. Qualitative and MAXQDA	Data was collected from school students through participant-observation, formal and informal interviews in classrooms	NA	
Goertzen & Whitake (2015) USA	Longitutdanal Quantitative NA	130 undergraduate University students	Modified PCQ items	Results indicate that leadership training can impact PsyCap capacities such as self-efficacy, optimism, hope, and resiliency.
Selvaraj & Bhat (2018) USA	Longitutdanal Quantitaitve SPSS, Version 22.0	1473 338 students of Midwextrn region of	PCQ 12	The study examines the relationship between mental health levels (flourishing, moderate mental health, and languishing) and psychological capital (PsyCap) in college students.
Cimen & Ozgan (2018) Turkey	Cross-sectional Qualitative Deductive content analysis of semi- structured interviews NVivo 11	14 Teachers	NA	According to the findings, a supportive organisational climate, collaboration, communication, convenient physical conditions of the school, parent engagement, professional characteristics and positive experiences emerged as contributors to teachers' psych
Kalman & Summak (2017) Turkey	Cross-sectional. Qualitative	12 School teachers Convenience sampling method	NA	The training intervention had some positive effects in terms of their personal and professional awareness and development.

	Classical content analysis techniques were used to analysis the interviews			
Rehman et al. (2017) Pakistan	Cross-sectional. Quantitative and SPSS 2.0	282 from 17 University full time and part faculty	PCQ 24	The utilisation of psychological capital has been found to be effective in reducing the negative consequences of occupational burnout on various results in performance.
Wang, Mei & Zhu (2017) China	Cross-sectional. Quantitative and correlational study SPSS 2.0	215 University students of different majors convenience sampling technique	Modified PCQ items	findings suggest that individuals with higher levels of PsyCap are more likely to engage in feedback- seeking behavior, and this relationship is explained by their feedback cognition

Research Gap

The variety of publications from different part of the world emphasizes that PsyCap research in educational institutions is still in its early stages. It is clear that further exploration across variables is needed to understand how the PsyCap concept affects individuals in education sector either as a lecturer , student or administrative staff . It also analyzes teachers' opinions about the impact of PsyCap through targeted interventions (Kalman & Summak 2017). Self-report measures have been extensively utilized in studies to assess various psychological constructs, including psychological capital. These measures, such as the 24-item Psychological Capital Questionnaire and its shorter 12-item version, have been employed as standardized measurement tools (Ma et al., 2014; Farrokhnejad & Hosseini (2016),, Sun & Huang, 2019 ;Prasath & Bhat, 2022;Safari, et al., 2017; Selvaraj & Bhat, 2018;Zyberaj & Bakaç, 2022) Most studies now choose approaches with a small number of articles employing qualitative designs. Demerah et al. (2018) stated that the purpose of these qualitative studies was to obtain insights into the dimensions of PsyCap and understand the elements that contribute to instructors' PsyCap (Cimen & Ozgan 2018).

Therefore it is recommended that future research embraces a range of methodologies. This would provide perspectives on the concept of PsyCap and its development. Additionally it is important to diversify study samples beyond the groups of teachers, lecturers and students. In addition, to studying staff (Williams, Kern, & Waters 2015) it is important to consider key individuals such as principals, district officers, ministry of education personnel and others who have an impact on school/universities performance. Furthermore, there have been scholarly studies into the concept of Psychological Capital (PsyCap) in Asian nations, which have revealed an inadequate degree of representation in this research. Despite the extensive amount of research conducted in Western countries, Pakistan has a distinct shortage of studies, notably in the education sector. This provides a chance to investigate the idea of Psychological Capital (PsyCap) in an Asian culture. This emphasises the importance of conducting research at the local level in order to gain significant insights about the educational environment.

Conclusion and Recommendations for future studies

This literature review explores the body of published work, on the use and development of PsyCap (Psychological Capital) in institutions. The findings of this review highlight the potential of PsyCap to promote growth and guide individuals towards outcomes both in the workplace and in broader life contexts. While there has been a focus on research investigating the relationship between PsyCap and various variables, such as performance, student achievement, happiness and job satisfaction there is a notable lack of qualitative studies that delve into how PsyCap is experienced by individuals. Understanding how PsyCap develops within settings is crucial for enhancing life satisfaction, happiness and work performance. The process by which PsyCap's cultivated permits further research to align with the discussions in positive psychology. Exploring the experiences of individuals within organizations provides insights into how PsyCap is nurtured outside traditional industrial contexts and emphasizes its importance, as an intrinsic psychological attribute that requires intentional development.

Consequently it is crucial to conduct research that focuses on the developmental aspects of PsyCap, within educational organizations. These investigations can employ research approaches, including exploring experiences analyzing multiple perspectives and examining specific contexts. By doing we can gain an understanding of the true nature of PsyCap beyond just relying on self-report measures.

Reference

- Adil, A., Ameer, S., & Ghayas, S. (2020). Impact of academic psychological capital on academic achievement among university undergraduates: Roles of flow and self-handicapping behavior. PsyCh Journal, 9(1), 56-66.
- Aftab, N., Rashid, S., & Ali Shah, S. A. (2018). Direct effect of extraversion and conscientiousness with interactive effect of positive psychological capital on organizational citizenship behavior among university teachers. Cogent Psychology, 5(1), 1514961.
- Agarwal, P., & Farndale, E. (2017). High-performance work systems and creativity implementation: the role of psychological capital and psychological safety. Human Resource Management Journal, 27(3), 440-458.
- Agarwal, U. A. (2019). Impact of supervisors' perceived communication style on subordinate's psychological capital and cyberloafing. Australasian Journal of Information Systems, 23.
- Akkermans, J. O. S., Brenninkmeijer, V., Schaufeli, W. B., & Blonk, R. W. (2015). It's all about CareerSKILLS: Effectiveness of a career development intervention for young employees. Human Resource Management, 54(4), 533-551.
- Al-Ghazali, B. M., Sohail, M. S., & Jumaan, I. A. M. (2021). CSR perceptions and career satisfaction: The role of psychological capital and moral identity. Sustainability, 13(12), 6786.
- Alias, N. E., Abu, N., Koe, W. L., Marmaya, N. H., & Romaiha, R. O. N. R. (2020). Does psychological capital matter for the public sector employees? A survey of the impact of psychological capital on individual job performance in Malaysia. International Journal Academic Research in Business and Social Sciences, 10(8), 772-787.
- Armenta, C. N., Fritz, M. M., & Lyubomirsky, S. (2017). Functions of positive emotions: Gratitude as a motivator of self-improvement and positive change. Emotion Review, 9(3), 183-190.
- Arsjad, A., & Dasan, J. (2022). the relationship of leadership style, psychological capital, and staff performance among academics holding administrative post in public higher education institution in Malaysia: Brief Review. Journal of BIMP-EAGA Regional Development, 8(1), 28-35.
- Ayers, R. S. (2015). Aligning individual and organizational performance: Goal alignment in federal government agency performance appraisal programs. Public Personnel Management, 44(2), 169-191.
- Babić, R., Babić, M., Rastović, P., Ćurlin, M., Šimić, J., Mandić, K., & Pavlović, K. (2020). Resilience in health and illness. Psychiatria Danubina, 32(suppl. 2), 226-232.
- Baig, S. A., Iqbal, S., Abrar, M., Baig, I. A., Amjad, F., Zia-ur-Rehman, M., & Awan, M. U. (2021). Impact of leadership styles on employees' performance with moderating role of positive psychological capital. Total Quality Management & Business Excellence, 32(9-10), 1085-1105.
- Baluku, M. M., Kikooma, J. F., & Otto, K. (2018). Positive mindset and entrepreneurial outcomes: the magical contributions of psychological resources and autonomy. Journal of Small Business & Entrepreneurship, 30(6), 473-498.
- Baron, R. A., Franklin, R. J., & Hmieleski, K. M. (2016). Why entrepreneurs often experience low, not high, levels of stress: The joint effects of selection and psychological capital. Journal of management, 42(3), 742-768.
- Basahel, A. M. (2021). Safety leadership, safety attitudes, safety knowledge and motivation toward safety-related behaviors in electrical substation construction projects. International journal of environmental research and public health, 18(8), 4196.
- Belias, D., & Koustelios, A. (2014). Organizational culture and job satisfaction: A review. International review of management and marketing, 4(2), 132-149.
- Bergheim, K., Nielsen, M. B., Mearns, K., & Eid, J. (2015). The relationship between psychological capital, job satisfaction, and safety perceptions in the maritime industry. Safety science, 74, 27-36.
- Biricik, Y. S. (2020). The Relationship between Psychological Capital, Job Performance and Job Satisfaction in Higher Education Institutions Offering Sports Education. World Journal of Education, 10(3), 57-64.
- Blaique, L., & Pinnington, A. H. (2022). Occupational commitment of women working in SET: the impact of coping self-efficacy and mentoring. Human Resource Management Journal, 32(3), 555-583.
- Bozionelos, N., Kostopoulos, K., Van der Heijden, B., Rousseau, D. M., Bozionelos, G., Hoyland, T., ... & Van der Heijde, C. (2016). Employability and job performance as links in the relationship

between mentoring receipt and career success: A study in SMEs. Group & organization management, 41(2), 135-171.

- Burhanuddin, N. A. N., Ahmad, N. A., Said, R. R., & Asimiran, S. (2019). A systematic review of the psychological capital (PsyCap) research development: Implementation and gaps. International Journal of Academic Research in Progressive Education and Development, 8(3), 133-150.
- Burns, A. J., Posey, C., Roberts, T. L., & Lowry, P. B. (2017). Examining the relationship of organizational insiders' psychological capital with information security threat and coping appraisals. Computers in Human Behavior, 68, 190-209.
- Cai, W., Lysova, E. I., Bossink, B. A., Khapova, S. N., & Wang, W. (2019). Psychological capital and self-reported employee creativity: The moderating role of supervisor support and job characteristics. Creativity and Innovation Management, 28(1), 30-41.
- Carlos, V. S., & Rodrigues, R. G. (2016). Development and validation of a self-reported measure of job performance. Social Indicators Research, 126, 279-307.
- Carter, J. W., & Youssef-Morgan, C. (2022). Psychological capital development effectiveness of faceto-face, online, and micro-learning interventions. Education and Information Technologies, 27(5), 6553-6575.
- Carter, W. R., Nesbit, P. L., Badham, R. J., Parker, S. K., & Sung, L. K. (2018). The effects of employee engagement and self-efficacy on job performance: a longitudinal field study. The international journal of human resource management, 29(17), 2483-2502.
- Cavazotte, F., Moreno, V., & Bernardo, J. (2013). Transformational leaders and work performance: The mediating roles of identification and self-efficacy. BAR-Brazilian Administration Review, 10, 490-512.
- Çavuş, M. F., & Gökçen, A. (2015). Psychological capital: Definition, components and effects. British Journal of Education, Society and Behavioural Science, 5(3), 244-255.
- Chamisa, S. F., Mjoli, T. Q., & Mhlanga, T. S. (2020). Psychological capital and organisational citizenship behaviour in selected public hospitals in the Eastern Cape Province of South Africa. SA Journal of Human Resource Management, 18, 12.
- Chen, C. C., Wang, Y., Chen, S. J., Fosh, P., & Wang, R. (2021). High commitment work system and firm performance: impact of psychological capital and environmental uncertainty. Asia Pacific Journal of Human Resources, 59(1), 132-151.
- Chen, Q., Kong, Y., Niu, J., Gao, W., Li, J., & Li, M. (2019). How leaders' psychological capital influence their followers' psychological capital: social exchange or emotional contagion. Frontiers in psychology, 10, 1578.
- Chen, S. L. (2015). The relationship of leader psychological capital and follower psychological capital, job engagement and job performance: a multilevel mediating perspective. The International Journal of Human Resource Management, 26(18), 2349-2365.
- Chen, S. W., & Peng, J. C. (2021). Determinants of frontline employee engagement and their influence on service performance. The International Journal of Human Resource Management, 32(5), 1062-1085.
- Cheung, F. Y. L., Wu, A. M., & Ching Chi, L. (2019). Effect of job insecurity, anxiety and personal resources on job satisfaction among casino employees in Macau: A moderated mediation analysis. Journal of Hospitality Marketing & Management, 28(3), 379-396.
- Choi, J. (2020). The mediating effect of positive psychological capital between autonomous work environment and self-directed behavior: evidence from South Korea. Human Resource Development International, 23(1), 46-65.
- Csikszentmihalyi, M. (2014). Applications of flow in human development and education (pp. 153-172). Dordrecht: Springer.
- Da, S., He, Y., & Zhang, X. (2020). Effectiveness of psychological capital intervention and its influence on work-related attitudes: Daily online self-learning method and randomized controlled trial design. International Journal of Environmental Research and Public Health, 17(23), 8754.
- Darvishmotevali, M., & Ali, F. (2020). Job insecurity, subjective well-being and job performance: The moderating role of psychological capital. International Journal of Hospitality Management, 87, 102462.

- Dawkins, S., Martin, A., Scott, J., & Sanderson, K. (2015). Advancing conceptualization and measurement of psychological capital as a collective construct. Human Relations, 68(6), 925-949.
- De Felice, D., & Graf, A. (2015). The potential of National Action Plans to implement human rights norms: An early assessment with respect to the UN Guiding Principles on Business and human rights. Journal of Human Rights Practice, 7(1), 40-71.
- De Waal, J. J., & Pienaar, J. (2013). Towards understanding causality between work engagement and psychological capital. SA Journal of Industrial Psychology, 39(2), 1-10.
- Dello Russo, S., & Stoykova, P. (2015). Psychological capital intervention (PCI): A replication and extension. Human Resource Development Quarterly, 26(3), 329-347.
- Demir, S. (2018). The Relationship between Psychological Capital and Stress, Anxiety, Burnout, Job Satisfaction, and Job Involvement. Eurasian Journal of Educational Research, 75, 137-153.
- Djourova, N., Rodríguez, I., & Lorente-Prieto, L. (2019). Individual profiles of psychological capital in a spanish sample. Journal of Social Science Research, 14, 3029-3047. https://doi.org/10.24297/jssr.v14i0.8042
- Dollwet, M., & Reichard, R. (2014). Assessing cross-cultural skills: Validation of a new measure of cross-cultural psychological capital. The International Journal of Human Resource Management, 25(12), 1669-1696.
- Donaldson, S. I., Chan, L. B., Villalobos, J., & Chen, C. L. (2020). The generalizability of hero across 15 nations: Positive psychological capital (psycap) beyond the us and other weird countries. International Journal of Environmental Research and Public Health, 17(24), 9432.
- Donate, M. J., Ruiz-Monterrubio, E., Sánchez de Pablo, J. D., & Peña, I. (2020). Total quality management and high-performance work systems for social capital development: Effects on company innovation capabilities. Journal of Intellectual Capital, 21(1), 87-114.
- Dreer, B. (2020). Positive psychological interventions for teachers: A randomised placebo-controlled field experiment investigating the effects of workplace-related positive activities. International Journal of Applied Positive Psychology, 5(1-2), 77-97.
- Duncan, A. R., Jaini, P. A., & Hellman, C. M. (2021). Positive psychology and hope as lifestyle medicine modalities in the therapeutic encounter: a narrative review. American Journal of Lifestyle Medicine, 15(1), 6-13.
- Feldman, D. B., & Kubota, M. (2015). Hope, self-efficacy, optimism, and academic achievement: Distinguishing constructs and levels of specificity in predicting college grade-point average. Learning and Individual Differences, 37, 210-216.
- Feleen, F., David, A., Choudhary, N., & Vivekanand, N. (2021). Impact of Psychological Capacities on the Work-Life Balance of Entrepreneurs.
- Fowler, D. R., Weber, E. N., Klappa, S. P., & Miller, S. A. (2017). Replicating future orientation: Investigating the constructs of hope and optimism and their subscales through replication and expansion. Personality and Individual Differences, 116, 22-28.
- Fu, J., Sun, W., Wang, Y., Yang, X., & Wang, L. (2013). Improving job satisfaction of Chinese doctors: the positive effects of perceived organizational support and psychological capital. Public health, 127(10), 946-951.
- Gill, C., & Caza, A. (2018). An investigation of authentic leadership's individual and group influences on follower responses. Journal of Management, 44(2), 530-554.
- Godinić, D., & Obrenovic, B. (2020). Effects of economic uncertainty on mental health in the COVID-19 pandemic context: social identity disturbance, job uncertainty and psychological well-being model.
- Gong, Z., Chen, Y., & Wang, Y. (2019). The influence of emotional intelligence on job burnout and job performance: Mediating effect of psychological capital. Frontiers in psychology, 10, 2707.
- Grant, A. M., & Atad, O. I. (2022). Coaching psychology interventions vs. positive psychology interventions: The measurable benefits of a coaching relationship. The Journal of Positive Psychology, 17(4), 532-544.
- Gu, Y., Tang, T., Wang, H., & Zhou, W. (2019). Sustainable career development of new urban immigrants: A psychological capital perspective. Journal of cleaner production, 208, 1120-1130.
- Guinan, P. J., Parise, S., & Langowitz, N. (2019). Creating an innovative digital project team: Levers to enable digital transformation. Business Horizons, 62(6), 717-727.

- Gupta, S., Bhasin, J., & Mushtaq, S. (2021). Employer brand experience and organizational citizenship behavior: mediating role of employee engagement. Asia-Pacific Journal of Business Administration, 13(3), 357-382.
- Harms, P. D., Vanhove, A., & Luthans, F. (2017). Positive projections and health: An initial validation of the implicit psychological capital health measure. Applied Psychology, 66(1), 78-102.
- Hartung, P. J., & Cadaret, M. C. (2017). Career adaptability: Changing self and situation for satisfaction and success. Psychology of career adaptability, employability and resilience, 15-28.
- Holmgreen, L., Tirone, V., Gerhart, J., & Hobfoll, S. E. (2017). Conservation of resources theory: Resource caravans and passageways in health contexts. The handbook of stress and health: A guide to research and practice, 443-457.
- Hsu, M. L., & Chen, F. H. (2017). The cross-level mediating effect of psychological capital on the organizational innovation climate–employee innovative behavior relationship. The Journal of Creative Behavior, 51(2), 128-139.
- Iannello, P., Sorgente, A., Lanz, M., & Antonietti, A. (2021). Financial well-being and its relationship with subjective and psychological well-being among emerging adults: Testing the moderating effect of individual differences. Journal of Happiness Studies, 22(3), 1385-1411.
- Idris, A. M., & Manganaro, M. (2017). Relationships between psychological capital, job satisfaction, and organizational commitment in the Saudi oil and petrochemical industries. Journal of Human Behavior in the Social Environment, 27(4), 251-269.
- Joseph, G., & Donald, W. E. (2022). Is it all about perception? A sustainability viewpoint on psychological capital and life well-being of management graduates. Higher education, skills and work-based learning, 12(2), 384-398.
- Jung, H. S., & Yoon, H. H. (2015). The impact of employees' positive psychological capital on job satisfaction and organizational citizenship behaviors in the hotel. International Journal of Contemporary Hospitality Management, 27(6), 1135-1156.
- Kang, H. J. A., & Busser, J. A. (2018). Impact of service climate and psychological capital on employee engagement: The role of organizational hierarchy. International Journal of Hospitality Management, 75, 1-9.
- Kang, H. J., Busser, J., & Choi, H. M. (2018). Service climate: how does it affect turnover intention?. International Journal of Contemporary Hospitality Management, 30(1), 76-94.
- Karatepe, O. M., & Karadas, G. (2015). Do psychological capital and work engagement foster frontline employees' satisfaction? A study in the hotel industry. International Journal of Contemporary Hospitality Management, 27(6), 1254-1278.
- Kelly, C. (2016). Taking leisure seriously: An investigation of leisure to work enrichment (Doctoral dissertation, University of Sheffield).
- Kim, M., Kim, A. C. H., Newman, J. I., Ferris, G. R., & Perrewé, P. L. (2019). The antecedents and consequences of positive organizational behavior: The role of psychological capital for promoting employee well-being in sport organizations. Sport Management Review, 22(1), 108-125.
- Kim, M., Perrewé, P. L., Kim, Y. K., & Kim, A. C. H. (2017). Psychological capital in sport organizations: Hope, efficacy, resilience, and optimism among employees in sport (HEROES). European Sport Management Quarterly, 17(5), 659-680.
- Ko, S. H., & Choi, Y. (2019). Compassion and job performance: Dual-paths through positive workrelated identity, collective self esteem, and positive psychological capital. Sustainability, 11(23), 6766.
- Kong, F., Tsai, C. H., Tsai, F. S., Huang, W., & De la Cruz, S. M. (2018). Psychological capital research: A meta-analysis and implications for management sustainability. Sustainability, 10(10), 3457.
- Krafft, A. M., Guse, T., & Maree, D. (2021). Distinguishing perceived hope and dispositional optimism: Theoretical foundations and empirical findings beyond future expectancies and cognition. Journal of Well-Being Assessment, 1-27.
- Kun, A., & Gadanecz, P. (2019). Workplace happiness, well-being and their relationship with psychological capital: A study of Hungarian Teachers. Current Psychology, 1-15.
- Kwok, S. Y., Cheng, L., & Wong, D. F. (2015). Family emotional support, positive psychological capital and job satisfaction among Chinese white-collar workers. Journal of Happiness Studies, 16, 561-582.

- LaRue, B. (2014). A regression analysis of coping flexibility as the mediator between psychological capital and well-being in child protection workers. Northcentral University.
- Lee, S., Cheong, M., Kim, M., & Yun, S. (2017). Never too much? The curvilinear relationship between empowering leadership and task performance. Group & Organization Management, 42(1), 11-38.
- Lee, T. C., Yao-Ping Peng, M., Wang, L., & Hung, H. K. (2021). Factors influencing employees' subjective wellbeing and job performance during the COVID-19 global pandemic: the perspective of social cognitive career theory. Frontiers in Psychology, 12, 577028.
- Lei, H., Leaungkhamma, L., & Le, P. B. (2020). How transformational leadership facilitates innovation capability: the mediating role of employees' psychological capital. Leadership & Organization Development Journal, 41(4), 481-499.
- Leung, X. Y., Sun, J., Zhang, H., & Ding, Y. (2021). How the hotel industry attracts generation Z employees: An application of social capital theory. Journal of Hospitality and Tourism Management, 49, 262-269.
- Liao, K., Liu, Z., & Li, B. (2022). The Effect of Psychological Capital and Role Conflict on the Academic Entrepreneurial Intents of Chinese Teachers in Higher Education: A Study Based on the Theory of Planned Behavior. Frontiers in Psychology, 13, 793408.
- Lindsay, S., R. Hartman, L., & Fellin, M. (2016). A systematic review of mentorship programs to facilitate transition to post-secondary education and employment for youth and young adults with disabilities. Disability and Rehabilitation, 38(14), 1329-1349.
- Lorenz, T., Beer, C., Pütz, J., & Heinitz, K. (2016). Measuring psychological capital: Construction and validation of the compound PsyCap scale (CPC-12). PloS one, 11(4), e0152892.
- Lupșa, D., Vîrga, D., Maricuțoiu, L. P., & Rusu, A. (2020). Increasing psychological capital: A preregistered meta-analysis of controlled interventions. Applied Psychology, 69(4), 1506-1556.
- Luthans, F., & Youssef-Morgan, C. M. (2017). Psychological capital: An evidence-based positive approach. Annual review of organizational psychology and organizational behavior, 4, 339-366.
- Luthans, F., Youssef, C. M., & Avolio, B. J. (2015). Psychological capital and beyond. Oxford University Press, USA.
- Luthans, K. W., Luthans, B. C., & Chaffin, T. D. (2019). Refining grit in academic performance: The mediational role of psychological capital. Journal of Management Education, 43(1), 35-61.
- MacDonald, L. (2017). You can be an optimist. The Rosen Publishing Group, Inc.
- Maddux, J. E. (2016). Self-efficacy. In Interpersonal and intrapersonal expectancies (pp. 41-46). Routledge.
- Maddux, J. E., & Kleiman, E. M. (2016). Self-efficacy: A foundational concept for positive clinical psychology. The Wiley handbook of positive clinical psychology, 89-101.
- Mao, Y., He, J., Morrison, A. M., & Andres Coca-Stefaniak, J. (2021). Effects of tourism CSR on employee psychological capital in the COVID-19 crisis: from the perspective of conservation of resources theory. Current Issues in Tourism, 24(19), 2716-2734.
- Martínez, I. M., Youssef-Morgan, C. M., Chambel, M. J., & Marques-Pinto, A. (2019). Antecedents of academic performance of university students: Academic engagement and psychological capital resources. Educational Psychology, 39(8), 1047-1067.
- Mauer, R., Neergaard, H., & Linstad, A. K. (2017). Self-efficacy: Conditioning the entrepreneurial mindset. Revisiting the Entrepreneurial Mind: Inside the Black Box: An Expanded Edition, 293-317.
- Mazzetti, G., Guglielmi, D., Chiesa, R., & Mariani, M. G. (2016). Happy employees in a resourceful workplace: Just a direct relationship? A study on the mediational role of psychological capital. Career Development International, 21(7), 682-696.
- McElravy, L. J., Matkin, G., & Hastings, L. J. (2018). How Can Service-Learning Prepare Students for the Workforce? Exploring the Potential of Positive Psychological Capital. Journal of Leadership Education, 17(1).
- McEwen, K., & Boyd, C. M. (2018). A measure of team resilience: Developing the resilience at work team scale. Journal of occupational and environmental medicine, 60(3), 258-272.
- Mohamud Shire, A. (2021). The impact of job demands-resources and personal resources on employees' job performance in telecommunication engineering sector (Doctoral dissertation, Universiti Tun Hussein Malaysia).

- Murden, F., Bailey, D., Mackenzie, F., Oeppen, R. S., & Brennan, P. A. (2018). The impact and effect of emotional resilience on performance: an overview for surgeons and other healthcare professionals. British Journal of Oral and Maxillofacial Surgery, 56(9), 786-790.
- Mutonyi, B. R. (2021). Employees' psychological capital and innovative behavior in higher education. International Journal of Quality and Service Sciences, 13(2), 198-215.
- Nafei, W. (2015). The effects of psychological capital on employee attitudes and employee performance: A study on teaching hospitals in Egypt. International Journal of Business and Management, 10(3), 249-270.
- Nafei, W. (2015). The effects of psychological capital on employee attitudes and employee performance: a study on teaching hospitals in egypt. International Journal of Business and Management, 10(3). <u>https://doi.org/10.5539/ijbm.v10n3p249</u>
- Newman, A., Nielsen, I., Smyth, R., & Hirst, G. (2018). Mediating role of psychological capital in the relationship between social support and wellbeing of refugees. International Migration, 56(2), 117-132.
- Newman, A., Ucbasaran, D., Zhu, F. E. I., & Hirst, G. (2014). Psychological capital: A review and synthesis. Journal of organizational behavior, 35(S1), S120-S138.
- Nimmi, P. M., Binoy, A. K., Joseph, G., & Suma, R. (2022). Significance of developing spirituality among management students: discerning the impact on psychological resources and wellbeing. Journal of Applied Research in Higher Education, 14(1), 317-331.
- Nolzen, N. (2018). The concept of psychological capital: a comprehensive review. Management Review Quarterly, 68(3), 237-277.
- Ntlahla, S. (2022). Evaluation of a psychological capital intervention aimed at improving flourishing of first year students at a selected university in the Western Cape.
- O'Mara-Eves, A., Thomas, J., McNaught, J., Miwa, M., & Ananiadou, S. (2015). Using text mining for study identification in systematic reviews: a systematic review of current approaches. Systematic reviews, 4(1), 1-22.
- Okros, N., & Virga, D. (2022). Impact of workplace safety on well-being: the mediating role of thriving at work. Personnel Review.
- Oosthuizen, R. M. (2021). Resilience as Moderator between workplace humour and well-being, a positive psychology perspective. The Palgrave Handbook of Humour Research, 263-287.
- Othman, N. (2021). Psychological Capital as a Thrust to Innovative Personality: A Focus on Education. Journal of Science, Technology and Innovation Policy, 7(1), 27-33.
- Ozturk, A., & Karatepe, O. M. (2019). Frontline hotel employees' psychological capital, trust in organization, and their effects on nonattendance intentions, absenteeism, and creative performance. Journal of Hospitality Marketing & Management, 28(2), 217-239.
- Paek, S., Schuckert, M., Kim, T. T., & Lee, G. (2015). Why is hospitality employees' psychological capital important? The effects of psychological capital on work engagement and employee morale. International journal of hospitality management, 50, 9-26.
- Paliga, M., Kożusznik, B., Pollak, A., & Sanecka, E. (2022). The relationships of psychological capital and influence regulation with job satisfaction and job performance. PloS one, 17(8), e0272412.
- Pandey, J. (2018). Factors affecting job performance: an integrative review of literature. Management Research Review, 42(2), 263-289.
- Parkash, V., & Kumar, U. (2016). Resilient personalities: An amalgamation of protective factors. In The Routledge International Handbook of Psychosocial Resilience (pp. 91-103). Routledge.
- Patnaik, G. (2021). Positive psychology for improving mental health & well-being. Notion Press.
- Pérez-Foguet, A., Lazzarini, B., Giné, R., Velo, E., Boni, A., Sierra, M., ... & Trimingham, R. (2018). Promoting sustainable human development in engineering: Assessment of online courses within continuing professional development strategies. Journal of Cleaner Production, 172, 4286-4302.
- Platania, S., & Paolillo, A. (2022). Validation and measurement invariance of the Compound PsyCap Scale (CPC-12): A short universal measure of psychological capital. Anales de Psicología/Annals of Psychology, 38(1), 63-75.
- Pradana, B. G. V. (2021). The role of psychological capital and leader member-exchange on participatory budgeting and managerial performance. Media Ekonomi dan Manajemen, 36(1).

- Prayag, G., Ozanne, L. K., & de Vries, H. (2020). Psychological capital, coping mechanisms and organizational resilience: Insights from the 2016 Kaikoura earthquake, New Zealand. Tourism Management Perspectives, 34, 100637.
- Qadeer, F., & Jaffery, H. (2014). Mediation of psychological capital between organizational climate and organizational citizenship behavior. Pakistan Journal of Commerce and Social Sciences, 8(2), 453-470.
- Ramawickrama, J., Opatha, H. H. D. N. P., & PushpaKumari, M. D. (2017). A synthesis towards the construct of job performance. International Business Research, 10(10), 66-81.
- Ramdani, Z., Marliani, R., & Rahman, A. A. (2019). The individual work performance scale: A psychometric study and its application for employee performance. Humanities & Social Sciences Reviews, 7(5), 405-414.
- Ramsden, K. A. (2019). The effects of psychological capital and job satisfaction on work engagement of support staff at a holdings establishment (Meridian Holdings) (Doctoral dissertation, Stellenbosch: Stellenbosch University).
- Rebelo, T., Dimas, I. D., Lourenço, P. R., & Palácio, Â. (2018). Generating team PsyCap through transformational leadership: A route to team learning and performance. Team Performance Management: An International Journal, 24(7/8), 363-379.
- Rego, A., Owens, B., Leal, S., Melo, A. I., e Cunha, M. P., Gonçalves, L., & Ribeiro, P. (2017). How leader humility helps teams to be humbler, psychologically stronger, and more effective: A moderated mediation model. The Leadership Quarterly, 28(5), 639-658.
- Reizer, A., Geffen, L., & Koslowsky, M. (2021). Life under the COVID-19 lockdown: On the relationship between intolerance of uncertainty and psychological distress. Psychological Trauma: Theory, Research, Practice, and Policy, 13(4), 432.
- Roche, M., Haar, J. M., & Luthans, F. (2014). The role of mindfulness and psychological capital on the well-being of leaders. Journal of occupational health psychology, 19(4), 476.
- Roemer, A., & Harris, C. (2018). Perceived organisational support and well-being: The role of psychological capital as a mediator. SA Journal of Industrial Psychology, 44(1), 1-11.
- Salanova, M., & Ortega-Maldonado, A. (2019). Psychological capital development in organizations: An integrative review of evidence-based intervention programs. Positive psychological intervention design and protocols for multi-cultural contexts, 81-102.
- Saleh, A., Wirawan, H., & Tamar, M. (2020). Improving health care service through healthy psychological capital and positive attitudes. Int. J. Adv. Sci. Eng. Inf. Technol, 10(4), 1723-1730.
- Saman, A., & Wirawan, H. (2021). Examining the impact of psychological capital on academic achievement and work performance: The roles of procrastination and conscientiousness. Cogent Psychology, 8(1), 1938853.
- Sano, A., Taylor, S., McHill, A. W., Phillips, A. J., Barger, L. K., Klerman, E., & Picard, R. (2018). Identifying objective physiological markers and modifiable behaviors for self-reported stress and mental health status using wearable sensors and mobile phones: observational study. Journal of medical Internet research, 20(6), e210.
- Santoro, G., Messeni-Petruzzelli, A., & Del Giudice, M. (2021). Searching for resilience: the impact of employee-level and entrepreneur-level resilience on firm performance in small family firms. Small Business Economics, 57, 455-471.
- Schaufeli, W. B. (2014). Bridging occupational, organizational and public health: A transdisciplinary approach. (No Title), 43.
- Seibert, S. E., Kraimer, M. L., & Heslin, P. A. (2016). Developing career resilience and adaptability. Organizational Dynamics, 45(3), 245-257.
- Seligman, M. E. (2019). Positive psychology: A personal history. Annual review of clinical psychology, 15, 1-23.
- Sen, C., & Hooja, H. (2015). Psychological capital & work-life balance: A Study on Police Officers. International Journal of Management and Social Sciences Research, 4, 7.
- Shah, T. A., Khattak, M. N., Zolin, R., & Shah, S. Z. A. (2019). Psychological empowerment and employee attitudinal outcomes: The pivotal role of psychological capital. Management Research Review, 42(7), 797-817.
- Slåtten, T., Lien, G., Horn, C. M. F., & Pedersen, E. (2019). The links between psychological capital, social capital, and work-related performance–A study of service sales representatives. Total Quality Management & Business Excellence, 30(sup1), S195-S209.

- Stajkovic, A. D., & Luthans, F. (1998). Social cognitive theory and self-efficacy: Goin beyond traditional motivational and behavioral approaches. Organizational dynamics, 26(4), 62-74.
- Sürücü, L., Maşlakcı, A., & Şeşen, H. (2020). The role of positive psychological capital in the effect of leadership styles on organizational commitment: A study of hospitality services. African Journal of Hospitality, Tourism and Leisure, 9(2), 1-16.
- Tan, K. L., Lew, T. Y., & Sim, A. K. (2019). Is meaningful work the silver bullet? Perspectives of the social workers. Journal of Asia Business Studies, 13(4), 612-632.
- Tang, Y., Shao, Y. F., & Chen, Y. J. (2019). Assessing the mediation mechanism of job satisfaction and organizational commitment on innovative behavior: the perspective of psychological capital. Frontiers in psychology, 10, 2699.
- Teixeira, s. (2022). Um olhar sobre a investigação do psycap em contexto organizacional. Egitania sciencia, 1(30), 167-196.
- Tierney, P., & Farmer, S. M. (2002). Creative self-efficacy: Its potential antecedents and relationship to creative performance. Academy of Management journal, 45(6), 1137-1148.
- Timo, J., Sami, Y. P., Anthony, W., & Jarmo, L. (2016). Perceived physical competence towards physical activity, and motivation and enjoyment in physical education as longitudinal predictors of adolescents' self-reported physical activity. Journal of science and medicine in sport, 19(9), 750-754.
- Tosten, R., & Toprak, M. (2017). Positive psychological capital and emotional labor: A study in educational organizations. Cogent Education, 4(1), 1301012.
- Verleysen, B., Lambrechts, F., & Van Acker, F. (2015). Building psychological capital with appreciative inquiry: Investigating the mediating role of basic psychological need satisfaction. The Journal of Applied Behavioral Science, 51(1), 10-35.
- Vîrgă, D., Maricuțoiu, L. P., & Iancu, A. (2021). The efficacy of work engagement interventions: A meta-analysis of controlled trials. Current Psychology, 40, 5863-5880.
- Vogt, K., Hakanen, J. J., Brauchli, R., Jenny, G. J., & Bauer, G. F. (2016). The consequences of job crafting: A three-wave study. European Journal of Work and Organizational Psychology, 25(3), 353-362.
- W., Huang, S., & Li, H. (2018). Psychological Capital, Emotional Labor and Exhaustion: Examining Mediating and Moderating Models. Current Psychology, 37(1), 343–356. <u>https://doi.org/10.1007/s12144-016-9518-z</u>
- Wang, J., Bu, L., Li, Y., Song, J., & Li, N. (2021). The mediating effect of academic engagement between psychological capital and academic burnout among nursing students during the COVID-19 pandemic: A cross-sectional study. Nurse Education Today, 102, 104938.
- Waters, L., Strauss, G., Somech, A., Haslam, N., & Dussert, D. (2020). Does team psychological capital predict team outcomes at work?. International Journal of Wellbeing, 10(1).
- Welch, V., Petticrew, M., Petkovic, J., Moher, D., Waters, E., White, H., ... & Wells, G. (2016). Extending the PRISMA statement to equity-focused systematic reviews (PRISMA-E 2012): explanation and elaboration. Journal of Clinical Epidemiology, 70, 68-89.
- Wijewardena, N., Samaratunge, R., & Härtel, C. (2019). Managing with humor: a novel approach to building positive employee emotions and psychological resources. Springer.
- Williams, M., Belkin, L. Y., & Chen, C. C. (2020). Cognitive flexibility matters: The role of multilevel positive affect and cognitive flexibility in shaping victims' cooperative and uncooperative behavioral responses to trust violations. Group & organization management, 45(2), 181-218.
- Wirawan, H., Jufri, M., & Saman, A. (2020). The effect of authentic leadership and psychological capital on work engagement: the mediating role of job satisfaction. Leadership & Organization Development Journal, 41(8), 1139-1154. <u>https://doi.org/10.1108/lodj-10-2019-0433</u>
- Wu, C. M., & Chen, T. J. (2018). Collective psychological capital: Linking shared leadership, organizational commitment, and creativity. International journal of hospitality management, 74, 75-84.
- Yoon, S., Dillard, R., Pei, F., McCarthy, K. S., Beaujolais, B., Wang, X., ... & Cochey, S. (2020). Defining resilience in maltreated children from the practitioners' perspectives: A qualitative study. Child Abuse & Neglect, 106, 104516.
- Youssef-Morgan, C. M., & Petersen, K. (2019). The benefits of developing psychological capital in the workplace. Creating psychologically healthy workplaces, 113-132.

- Zhao, J., Wei, G., Chen, K. H., & Yien, J. M. (2020). Psychological capital and university students' entrepreneurial intention in China: mediation effect of entrepreneurial capitals. Frontiers in psychology, 10, 2984.
- Zhao, X., Wu, K., Sun, B., & Li, W. (2022). Teacher career calling reduces burnout: The mediation effects of work engagement and psychological capital. Frontiers in Psychology, 13, 988467.
- Zhou, J., Yang, Y., Qiu, X., Yang, X., Pan, H., Ban, B., & Wang, W. (2018). Serial multiple mediation of organizational commitment and job burnout in the relationship between psychological capital and anxiety in Chinese female nurses: A cross-sectional questionnaire survey. International journal of nursing studies, 83, 75-82.