

**Enhancing Psychological Capital (PsyCap) to Improve Job Satisfaction and  
Retention: A Pilot Intervention Study**

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## **Enhancing Psychological Capital (PsyCap) to Improve Job Satisfaction and Retention: A Pilot Intervention Study**

*Purpose.* This study examines the effectiveness of a brief, structured intervention aimed at developing Psychological Capital (PsyCap) to enhance job satisfaction and reduce turnover intention. Grounded in the state-trait framework, the intervention treats PsyCap as a malleable psychological resource that can be strengthened through development efforts.

*Methodology.* One hundred working individuals were assigned to either an intervention or control group. The intervention included two workshops and a follow-up session, focusing on self-assessment, goal setting, and psychological skills training. PsyCap, job satisfaction, and intention to quit were measured before and after the programme. Linear mixed-effects models assessed the effects of group, time, and their interaction.

*Findings.* Significant interaction effects were found for all outcomes: the intervention group showed greater increases in PsyCap and job satisfaction, and a larger decrease in intention to quit. These findings support PsyCap's state-like malleability and suggest underlying trait-like stability. Overall, the results highlight the relevance of PsyCap development for improving workplace attitudes.

*Practical implications.* While PsyCap interventions may offer promise for HR and leadership use, these conclusions warrant caution due to the non-randomised design, limited sample, and lack of follow-up. Further research is needed to confirm their effectiveness and durability.

*Originality/value.* This pilot study offers initial controlled data on a PsyCap intervention conducted in an applied setting. While preliminary, the results contribute to the empirical literature on PsyCap development and its potential links to job satisfaction and retention. Findings should be interpreted in light of methodological constraints, and future replication is encouraged.

## Introduction

In today's working world, employees and organisations face constant change. Companies are becoming less hierarchical, and employees are expected to adapt quickly, manage stress, and respond to challenges with flexibility and emotional strength. At the same time, many organisations are under pressure to improve in areas like sustainability, diversity, and staff well-being. These trends have increased interest in psychological resources that help individuals thrive at work. One such resource is Psychological Capital, often shortened to PsyCap (Luthans and Youssef-Morgan, 2017; Luthans, Youssef-Morgan, and Avolio, 2015). PsyCap is made up of four personal strengths: hope (setting and pursuing goals), self-efficacy (confidence in one's abilities), resilience (recovering from setbacks), and optimism (expecting positive outcomes). When combined, these qualities represent a set of psychological resources that may support individuals in performing well and experiencing greater well-being at work. Previous research has shown that PsyCap is associated with outcomes such as job satisfaction, performance, and lower turnover intentions (Avey et al., 2011; Kleine et al., 2019; Loghman et al., 2023).

The purpose of this study is to evaluate a new training programme that was specifically developed to strengthen employees' PsyCap. The programme has never been scientifically tested before. It includes structured workshops, reflection exercises, and follow-up activities designed to help participants develop their personal resources. Because the programme is new, it is especially important to examine whether it actually works as intended. To do this, the study compared two groups of participants: one group took part in the PsyCap programme, and the other group did not. Both groups completed the same psychological questionnaires before and after the programme. The main idea being tested is whether the people who participated in the programme would show a greater increase in their PsyCap levels compared to those in the control group (Luthans, Youssef, and Avolio, 2007).

## Theory

PsyCap, defined by Luthans et al. (2015; 2017) as “an individual’s positive psychological state of development,” characterised by four components: hope (Snyder, 2000), self-efficacy (Bandura, 1977), resilience (Masten, 2001), and optimism (Seligman, 1998). Unlike fixed psychological traits such as personality or cognitive ability, PsyCap is conceptualised as state-like - that is, relatively malleable, open to development, and responsive to situational influences (Luthans et al., 2015; 2017). This distinction has important implications for both theory and practice, as it positions PsyCap as a psychological resource that can be actively cultivated through interventions. The distinction between traits and states in psychology originates from the early work of Gordon Allport and Raymond Cattell. Allport (1937) defined traits as enduring dispositions that produce consistent patterns of behaviour, while states were viewed as temporary conditions influenced by context or emotion. Cattell (1973) expanded on this by distinguishing between source traits - stable, underlying personality dimensions - and state traits, which reflect short-term psychological conditions. Within this framework, PsyCap occupies a hybrid position: it is more dynamic than traditional traits, but more stable and measurable than purely momentary states such as mood or affect (Luthans et al., 2015).

## Empirical Studies

Empirical studies support this dual nature. On the one hand, PsyCap has demonstrated temporal consistency and predictive validity for outcomes such as job performance (Avey, Reichard, Luthans, and Mhatre, 2011). On the other hand, multiple studies - including controlled interventions - have shown that PsyCap can be significantly enhanced over relatively short periods (Luthans, Avey, Avolio, and Peterson, 2010; Owens, Johnson, and Mitchell, 2013). These findings support the view that PsyCap reflects positive psychological capacities that are both developable and enduring, making it particularly relevant in applied organisational contexts. Meta-analyses of PsyCap-based interventions generally support this type of intervention (Lupsa et al., 2020; Loghman et

al., 2025). These findings suggest that interventions aimed at enhancing psychological capital can produce consistent and meaningful improvements across a range of occupational and psychological outcomes.

Previous research has consistently linked PsyCap to job satisfaction (Avey et al., 2011; Loghman et al., 2023), which is intuitive - individuals who perceive meaningful goals, feel capable in their roles, maintain a positive outlook, and are equipped to handle adversity are more likely to report higher satisfaction.

Turnover intention, conceptualised as a negative facet of job satisfaction, refers to an individual's conscious desire to voluntarily leave their organisation (Mobley et al., 1979; Sjöberg and Sverke, 2000). Such intentions frequently precede actual resignations, which can lead to substantial costs for organisations, including recruitment expenses, productivity loss, and reduced morale among remaining employees (Hom et al., 2017). For instance, Loghman et al. (2023) demonstrated in a recent meta-analysis that higher PsyCap levels are associated with lower intentions to leave one's job.

### **Interventions**

It is important to note that the same intervention is likely to have positive effects on more than one of the four components of PsyCap - hope, efficacy, resilience, and optimism - even when it is designed to target a specific element. This overlap is partly due to the interrelated nature of the PsyCap components, which tend to reinforce one another in practice. Furthermore, interventions do not necessarily need to be explicitly framed within the PsyCap theoretical model to yield beneficial effects. Exercises and methods that originate from other psychological traditions or therapeutic approaches may also contribute to increases in PsyCap. For example, interventions grounded in mindfulness practices or Acceptance and Commitment Therapy (ACT) have been shown to improve key aspects of psychological functioning that align closely with the dimensions of PsyCap, such as cognitive flexibility, emotional regulation, and goal-directed persistence. These effects have been documented even when PsyCap was not the explicit target of the intervention (e.g.,

Fang and Ding, 2020; Biswal and Srivastava, 2022) This underscores the potential for integrative approaches that draw on multiple psychological frameworks to foster the development of PsyCap in diverse professional contexts.

### **The Present Study**

The present study evaluates an intervention specifically designed to enhance among working professionals. This intervention is entirely novel and has not previously been subjected to empirical evaluation. For this reason, it is essential to rigorously and continuously examine the extent to which the intervention produces its intended psychological and behavioral effects.

The primary hypothesis guiding this research is that individuals who participate in the intervention will show a statistically significant increase in their levels of PsyCap compared to those in a control group who did not receive the intervention. In addition to investigating changes in PsyCap, the study also explores whether the intervention leads to improvements in job satisfaction and a reduction in participants' intentions to leave their current employment. It is hypothesised that, relative to the control group, those who complete the intervention will report higher levels of job satisfaction and lower levels of turnover intention, reflecting a broader positive impact on work-related attitudes and motivation.

### **Hypotheses**

This study proposes and tests the following hypotheses:

H1: The intervention group will demonstrate a significant increase in psychological capital compared to the control group.

H2: The intervention group will exhibit increased job satisfaction over time relative to the control group.

H3: The intervention group will report reduced intention to quit compared to the control group.

## Method

### Design

The intervention is grounded in the assumption that, although stable traits exist, PsyCap is a trainable construct that can be purposefully developed within organisational settings. PsyCap builds upon principles from positive psychology and organisational behaviour. Each dimension contributes uniquely to how individuals respond to challenges and opportunities at work. Hope involves setting goals, identifying strategies to reach them, and sustaining motivation. Efficacy reflects confidence in one's ability to perform tasks successfully. Resilience refers to the capacity to recover from setbacks, while optimism entails a general expectation of positive outcomes. The intervention aimed to develop psychological capital (PsyCap) - a higher-order construct encompassing hope, efficacy, resilience, and optimism - through a structured program involving assessment, workshops, and follow-up.

Prior to the program, participants completed a questionnaire (see Measurement below), which generated individualized reports outlining their PsyCap profiles. These reports served as a foundation for targeted self-reflection and goal setting. The first workshop, held over two days, introduced the theoretical and practical foundations of PsyCap. Participants explored the conceptual underpinnings and evidence base for PsyCap, alongside strategies for enhancing each component. Drawing on Acceptance and Commitment Therapy (Hayes et al., 2006) and the WOOP method (Oettingen, 2014), participants engaged in values-based reflection exercises to consider how aligning behavior with personal values could support well-being and development. Each participant received a structured workbook designed to guide reflection and planning. Activities included gap analyses to identify discrepancies between current and desired states, component-specific prompts based on positive psychology coaching methods (Van Zyl et al., 2020), and the formulation of individual action plans targeting one or two PsyCap dimensions. Plans specified concrete goals, strategies, potential challenges, and sources of support.

Group-based exercises promoted peer feedback and collaborative refinement of plans, while brief mindfulness practices at the beginning and end of each day encouraged self-awareness and emotional regulation.

Approximately one month later, the second two-day workshop focused on deepening participants' PsyCap development. The workshop began with structured reflection on participants' action plans and progress to date. Participants then conducted feedforward interviews (Carrillo, Rubio-Aparicio, Molinari, Enrique, Sanchez-Meca, and Banos, 2019; Ilies, Bono, and Bakker, 2024; Rechter, Kluger, and Nir, 2025), identifying strengths based on prior successes and exploring how these could be leveraged in new contexts. A key emphasis during these two days was placed on relational resilience. Participants performed a social network analysis (Hartling, 2008) to evaluate the quality and diversity of their interpersonal connections and engaged in listening skills training as a tool for strengthening relations. Exercises involved practicing active constructive responses (Passmore and Oades, 2014) and silent listening (Kluger and Itzchakov, 2022) to improve trust and relational depth. Also a gratitude exercise (Kirca, Malouff, and Meynadier, 2023) invited participants to write letters of appreciation to individuals who had positively impacted their lives. Sharing or delivering these letters reinforced the emotional benefits of gratitude. As in the first workshop, mindfulness practices were used to bookend the training days.

Two months after the second workshop, a follow-up session was held in which participants completed a second assessment. Comparing their initial and follow-up reports, they reflected on observed changes, shared insights from their developmental journeys, and discussed lessons learned, ongoing challenges, and future goals. Throughout the program, a workbook played a central role in structuring reflection and action. It included guided exercises for interpreting assessment results, templates for goal-setting and progress tracking, and prompts inspired by cognitive-behavioral therapy, motivational interviewing, and solution-focused approaches. The workbook functioned as both a personal development guide and a tool for sustaining focus and accountability over time.

## Study Participants

To test the study's three hypotheses, 50 individuals participated in the psychological capital intervention by voluntarily enrolling in a course on psychological capital. A convenience sample served as the control group ( $N = 50$ ); these individuals were recruited via LinkedIn and completed the same assessments at two time points without the intervention. As an incentive for the control group, they were offered a three-hour lecture after completing the second assessment. To ensure comparable measurement intervals, the number of days between assessments was calculated for each participant. The intervention group had a mean interval of 103.43 days ( $SD = 36.49$ ), while the control group's interval was slightly shorter and more consistent ( $M = 98.64$ ,  $SD = 3.01$ ). An independent samples t-test (Welch's) showed no significant difference between groups,  $t(89.2) = 0.93$ ,  $p = .36$ , suggesting that the time elapsed between assessments was unlikely to explain differences in outcomes. No data on participants' age, gender, or other demographic variables were collected, which precluded statistical control for these factors in the analysis. All participants provided informed consent for their data to be used for research purposes. The data included in this article are reported exclusively at the aggregate level, ensuring that no individual participant can be identified.

## Measures

### *PsyCap*

PsyCap was measured using a 21-item scale developed specifically for this programme named HERO-IQ. The scale was based on existing definitions of the constructs hope, efficacy, resilience, and optimism. The initial version of the scale was developed in English and was found to be both reliable and valid (Evidensum, 2023). The overall scale demonstrated high reliability (Cronbach's Alpha = .94; Evidensum, 2023) and a good factor structure (chi-square= 261 (df=150); RMSEA=.04). In this study, both the control group and the intervention group exhibited similarly high reliability for the adapted Swedish version of the scale at both time points (Cronbach's Alpha = .90).

### ***Job Satisfaction***

Job satisfaction was assessed using a Swedish version of a three-item scale (Hellgren et al., 1997; Brayfield and Rothe, 1951) focusing on the affective dimension of satisfaction. The scale has shown good reliability in prior studies (e.g., Annell et al., 2018). In this study, Cronbach's alpha was .91 and .89 for the intervention and control groups, respectively, at Time 1, and .87 and .90 at Time 2.

### ***Turnover Intention***

Turnover intention was measured using a three-item scale designed to assess overall turnover propensity (Hellgren, Sjöberg and Sverke, 1996). The items, originally adapted from propensity-to-leave scales (Lyons, 1971; Camman, Fichman, Jenkins, and Klesh, 1979), were modified to be statements rather than questions. The scale has been widely used and demonstrates good reliability (e.g., Sjöberg and Sverke, 2000). In this study, Cronbach's alpha at Time 1 was .88 for the intervention group and .91 for the control group, increasing to .93 and .95, respectively, at Time 2.

### **Analysis**

To test the study's hypotheses regarding the effects of the intervention, particular attention was given to the interaction between group (intervention vs. control) and time (pre- vs. post-intervention), as this captures whether changes in the outcome variables differ between groups - thus indicating intervention effects.

A linear mixed-effects model was used to analyze the effects of group and time on PsyCap, job satisfaction, and intention to quit. Group and time were included as fixed effects, along with their interaction. A random intercept for subjects was specified to account for baseline individual differences and to reflect the nested structure of the data, where repeated measurements were collected from the same individuals.

This nesting results in clustering, meaning that observations from the same participant tend to be more similar than those from different individuals. The intraclass correlation coefficient (ICC) quantifies this by estimating the proportion of total variance

attributable to between-person differences. While not central to hypothesis testing, ICC values are reported to provide insight into the degree of individual stability. For example, a high ICC for PsyCap suggests trait-like consistency over time, consistent with its conceptualization as a partly stable yet developable resource.

All analyses were conducted using the lme4 package (Bates et al., 2015). Data preparation was performed with dplyr (Wickham et al., 2023), and visualizations were created using ggplot2 (Wickham, 2016).

## Results

Descriptive statistics are presented in Table 1. The control group showed minimal change from Time 1 to Time 2 across all variables, with negligible effect sizes for Psychological Capital (Cohen's  $d = .02$ ) and Job Satisfaction (Cohen's  $d = .02$ ), and a small increase in Intention to Quit (Cohen's  $d = .22$ ). In contrast, the intervention group demonstrated a large increase in Psychological Capital (Cohen's  $d = .95$ ), a moderate improvement in Job Satisfaction (Cohen's  $d = .63$ ), and a moderate decrease in Intention to Quit (Cohen's  $d = .40$ ).

To formally test our hypotheses regarding the effects of the intervention over time, three linear mixed-effects models were estimated - one for each outcome variable: Psychological Capital, Job Satisfaction, and Intention to Quit. The primary parameter of interest was the Group  $\times$  Time interaction, which captures the differential change in outcomes attributable to the intervention.

For PsyCap, the interaction effect was statistically significant ( $b = 0.32$ ,  $SE = 0.07$ ,  $t = 4.35$ ), indicating that the intervention group experienced a greater increase in PsyCap over time compared to the control group. The main effects for group and time were not significant. The intraclass correlation coefficient (ICC) was 0.63, reflecting substantial between-individual variation.

A similar pattern emerged for job satisfaction, where a significant interaction effect was observed ( $b = 0.41$ ,  $SE = 0.14$ ,  $t = 2.90$ ). This suggests that job satisfaction increased

more in the intervention group than in the control group across time. Neither the main effect of group nor time reached significance. The ICC for job satisfaction was 0.67, again indicating meaningful variance at the individual level.

For intention to quit, the interaction effect was significant and negative ( $b = -0.57$ ,  $SE = 0.19$ ,  $t = -3.02$ ), demonstrating that participants in the intervention group reported a greater reduction in their intention to quit than those in the control group. The main effect of time approached significance ( $b = 0.24$ ,  $t = 1.81$ ), while the group effect was not significant. The ICC was 0.69, suggesting considerable between-subject variability.

Taken together, these findings support the study's hypotheses, indicating that the PsyCap intervention had a positive and differential effect on participants' PsyCap, job satisfaction, and turnover intentions compared to the control condition.

### **Discussion**

The results of this pilot study indicated that participants in the intervention group showed greater improvements in PsyCap and job satisfaction, and a larger reduction in intention to quit, compared to the control group. These differences were reflected in significant interaction effects across all three models, whereas main effects for group and time were not significant. This pattern may suggest that changes occurred over time in response to the intervention; however, alternative explanations such as uncontrolled baseline factors cannot be ruled out.

PsyCap is described by Luthans et al. (2015) as state-like. This implies that while it exhibits some degree of temporal stability, it is also malleable and responsive to targeted development efforts. The significant interaction effect observed in the present study - wherein participants in the intervention group demonstrated a substantially greater increase in PsyCap over time compared to the control group - strongly supports this conceptualization. Unlike enduring traits such as personality or intelligence, state-like constructs are expected to vary depending on contextual inputs, such as structured interventions, feedback, or environmental support. The absence of significant main effects

for group or time further strengthens the interpretation that the observed improvements in PsyCap were driven by the interaction between participation in the intervention and temporal change, rather than by pre-existing group differences or general time effects.

These results align with the core assumptions of the state-trait model (Cattell, 1969), where states are defined as more dynamic, situation-sensitive psychological resources, amenable to change over relatively short periods. PsyCap's position as a higher-order construct composed of hope, efficacy, resilience, and optimism reinforces this perspective: each of these components has been shown individually to respond to developmental inputs (e.g., training, reflection, feedback). The current findings demonstrate that when these elements are addressed systematically, as in the present intervention, meaningful psychological growth can occur.

Moreover, observed differences in job satisfaction and intention to quit may point to possible spillover effects of the intervention. That these outcomes changed more in the intervention group than in the control group suggests that strengthening positive psychological resources could be linked to attitudinal outcomes. This is consistent with previous research indicating that PsyCap may function as a personal resource with potential relevance for organizational factors (Avey et al., 2011; Luthans and Youssef-Morgan, 2017).

### **Limitations**

Although the results suggest a potential effect, several limitations should be acknowledged. First, the sample size was relatively small ( $N = 100$ ), with 50 participants in each group. Although the findings were statistically significant and broadly consistent with theoretical expectations, the limited sample size reduces the generalizability of the results and increases the risk of Type II errors in detecting smaller effects. Second, the groups were not randomly assigned, which introduces the possibility of pre-existing differences influencing the outcomes. This non-random allocation limits the ability to draw strong causal conclusions. Future studies should aim to replicate these preliminary findings

using larger and more diverse samples, ideally with random assignment, to enhance both internal and external validity.

Second, all outcome measures were based on self-reports, which introduces the possibility of common method bias and social desirability effects. While the constructs examined - such as PsyCap and intention to quit - are inherently subjective, the use of self-assessments may have inflated observed associations. Incorporating multi-source data (e.g., supervisor ratings, behavioural indicators, or administrative data on actual turnover) in future research would strengthen the validity of the findings.

Third, the observed improvements may be partly attributable to non-specific intervention effects, such as increased attention, reflection, or motivation among participants in the intervention group. This “Hawthorne effect” - wherein participants improve simply because they are aware of being studied - cannot be ruled out. Although the control group completed the same assessments and received a delayed incentive (a lecture), they did not receive the same level of interaction or psychological engagement as the intervention group. Future studies could benefit from using an active control condition to better isolate the specific effects of the PsyCap intervention.

Fourth, the repeated-measures design enabled estimation of intra-class correlation (ICC), which indicated moderate trait-like stability in PsyCap, suggesting stable individual differences. At the same time, significant group  $\times$  time interactions point to possible state-like change following the intervention. This supports the idea that PsyCap includes both stable and malleable components. However, with only two time points and single-indicator measurement, it is difficult to distinguish systematic change from temporary fluctuation or measurement error (Nezlek, 2007).

Finally, while the design included pre- and post-measurements, it did not incorporate long-term follow-up. As a result, it is unclear whether the gains in PsyCap and the improvements in job satisfaction and turnover intention were sustained over time. The state-like nature of PsyCap suggests that such gains may diminish without reinforcement.

Longitudinal follow-up assessments would therefore be important to determine the durability of intervention effects.

### **Practical Implications**

The findings of this study highlight important implications for practice. Short, structured interventions can deliberately strengthen psychological capital (PsyCap) by combining assessment, reflection, goal-setting, and group work. These interventions are scalable and time-efficient, making them well suited for modern HR and leadership development.

For leaders, enhancing hope, efficacy, resilience, and optimism provides essential resources to manage uncertainty, support others, and foster engagement. Because leadership behaviors shape organizational culture, stronger leader PsyCap may have cascading effects across teams and departments.

PsyCap's multi-level nature also makes it a unifying framework for individuals, teams, and organizations. However, strengthening PsyCap alone is unlikely to generate sustainable change. Employees' experiences are shaped not only by personal resources but also by job design and organizational context, where autonomy, task significance, skill variety, and feedback play central roles (Hackman & Oldham, 1976; Parker, 2014). Although PsyCap can buffer against stressors, it cannot fully offset dysfunctional conditions such as bullying, excessive demands, or poor leadership (Magwegwe, 2024; Glavanits, Lipták, Kálmán, & Poór, 2025). PsyCap interventions are therefore most effective when combined with supportive HR practices, effective leadership, and healthy work design.

Research on job design and organizational conditions (Hackman & Oldham, 1976; Wrzesniewski & Dutton, 2001; Grant & Parker, 2009; Peccei, Van De Voorde & Van Veldhoven, 2013; Parker, 2014; Lantz, Hansen & Antoni, 2015; Boxall & Purcell, 2016) shows that enriched jobs, supportive leadership, and enabling climates are critical for sustaining well-being and performance. Based on this pilot study, we propose that PsyCap training is most effective when it complements these broader practices. By combining the

development of personal resources with structural and cultural initiatives, organizations can achieve more durable improvements in both well-being and performance.

One way this integration could be realised in practice is through a leadership development program that combines PsyCap training with job design. Leaders would first develop hope, efficacy, resilience, and optimism through reflection and goal-setting exercises. They would then apply these resources in workshops aimed at increasing autonomy, feedback, and skill variety in their teams. By leading small redesign projects while modeling PsyCap behaviors, leaders strengthen both their own resources and the work environment, creating more sustainable improvements in well-being and performance.

### **Conclusion**

This study demonstrates that PsyCap can be enhanced through a brief, structured intervention, leading to measurable improvements in job satisfaction and reductions in intention to quit. The findings support the theoretical classification of PsyCap as a state-like construct and offer strong justification for its inclusion in contemporary leadership development and HR strategies. As organisations seek effective ways to promote adaptability, engagement, and resilience in the workplace, PsyCap represents a promising and actionable target for investment.

## References

- Alarcon, G.M., Bowling, N.A. and Khazon, S. (2013), Great expectations: A meta-analytic examination of optimism and hope, *Personality and Individual Differences*, Vol. 54 No. 7, pp. 821-827.
- Allport, G. W. (1937). *Personality: A psychological interpretation*, Holt.
- Avey, J.B., Reichard, R.J., Luthans, F. and Mhatre, K.H. (2011), Meta-analysis of the impact of positive psychological capital on employee attitudes, behaviors, and performance, *Human Resource Development Quarterly*, Vol. 22 No. 2, pp. 127-152.
- Bates, D., Mächler, M., Bolker, B., and Walker, S. (2015). Fitting linear mixed-effects models using lme4, *Journal of Statistical Software*, 67(1), 1-48.
- Bandura, A. (1977), Self-efficacy: Toward a unifying theory of behavioral change, *Psychological Review*, Vol. 84 No. 2, pp. 191-215.
- Biswal, K. and Srivastava, K.B. (2022), Mindfulness-based practices, psychological capital, burnout and performance anxiety, *Development and Learning in Organizations: An International Journal*, Vol. 36 No. 6, pp. 4-7.
- Boxall, P., & Purcell, J. (2016). *Strategy and human resource management (4th ed.)* , Palgrave Macmillan.
- Carrillo, A., Rubio-Aparicio, M., Molinari, G., Enrique, A., Sanchez-Meca, J. and Banos, R.M. (2019), Effects of the best possible self intervention: A systematic review and meta-analysis, *PloS One*, Vol. 14 No. 9, e0222386.
- Cattell, R. B. (1969). Comparing factor trait and state scores across ages and cultures. *Journal of Gerontology*, 24(3), 348-360.

Cattell, R. B. (1973). *Personality and Mood by Questionnaire*. San Francisco: Jossey-Bass.

Dello Russo, S. and Stoykova, P. (2015), Psychological capital intervention (PCI): A replication and extension, *Human Resource Development Quarterly*, Vol. 26 No. 3, pp. 329-347.

Dixon, A.L. and Schertzer, S.M.B. (2005), Bouncing back: How salesperson optimism and self-efficacy influence attributions and behaviors following failure, *Journal of Personal Selling & Sales Management*, Vol. 25 No. 4, pp. 361-369.

Donaldson, S.I., Lee, J.Y. and Donaldson, S.I. (2019), Evaluating positive psychology interventions at work: A systematic review and meta-analysis, *International Journal of Applied Positive Psychology*, Vol. 4 No. 3, pp. 113-134.

Evidensum (2023). HERO-IQ. Technical manual. Evidensum.

Fang, S. and Ding, D. (2020), The efficacy of group-based acceptance and commitment therapy on psychological capital and school engagement: A pilot study among Chinese adolescents, *Journal of Contextual Behavioral Science*, Vol. 16, pp. 134-143.

Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16(2), 250-279.

Grant, A. M., & Parker, S. K. (2009). Redesigning work design theories: The rise of relational and proactive perspectives, *Academy of Management Annals*, 3(1), 317-375.

Faragher, E.B., Cass, M. and Cooper, C.L. (2005), The relationship between job satisfaction and health: A meta-analysis, *Occupational and Environmental Medicine*, Vol. 62 No. 2, pp. 105-112.

Glavanits, J., Lipták, K., Kálmán, B., & Poór, J. (2025). Psychological capital, workplace

- stress, and mobbing: A cross-country empirical analysis, *Societies*, 15(9), 244.
- Gully, S.M., Incalcaterra, K.A., Joshi, A. and Beaubien, J.M. (2002), A meta-analysis of team-efficacy, potency, and performance: Interdependence and level of analysis as moderators of observed relationships, *Journal of Applied Psychology*, Vol. 87 No. 5, pp. 819-832.
- Haase, J., Hoff, E., Hanel, P. and Innes-Ker, Å. (2018), A meta-analysis of the relation between creative self-efficacy and different creativity measurements, *Creativity Research Journal*, Vol. 30 No. 1, pp. 1-16.
- Hannah, S.T., Avolio, B.J., Luthans, F. and Harms, P.D. (2008), Leadership efficacy: Review and future directions, *Leadership Quarterly*, Vol. 19 No. 6, pp. 669-692.
- Hartling, L.M. (2008), Strengthening resilience in a risky world: Its all about relationships, *Women & Therapy*, Vol. 31 No. 2-4, pp. 51-70.
- Hayes, S.C., Luoma, J.B., Bond, F.W., Masuda, A. and Lillis, J. (2006), Acceptance and commitment therapy: Model, processes, and outcomes, *Behaviour Research and Therapy*, Vol. 44 No. 1, pp. 1-25.
- Hom, P.W., Lee, T.W., Shaw, J.D. and Hausknecht, J.P. (2017), One hundred years of employee turnover theory and research, *Journal of Applied Psychology*, Vol. 102 No. 3, pp. 530-545.
- Ilies, R., Bono, J.E. and Bakker, A.B. (2024), Crafting well-being: Employees can enhance their own well-being by savoring, reflecting upon, and capitalizing on positive work experiences, *Annual Review of Organizational Psychology and Organizational Behavior*, Vol. 11 No. 1, pp. 63-91.
- Judge, T.A. and Watanabe, S. (1993), Another look at the job satisfaction-life satisfaction

- relationship, *Journal of Applied Psychology*, Vol. 78 No. 6, pp. 939-948.
- Judge, T.A., Thoresen, C.J., Bono, J.E. and Patton, G.K. (2001), The job satisfaction-job performance relationship: A qualitative and quantitative review, *Psychological Bulletin*, Vol. 127 No. 3, pp. 376-407.
- Judge, T.A., Weiss, H.M., Kammeyer-Mueller, J.D. and Hulin, C.L. (2017), Job attitudes, job satisfaction, and job affect: A century of continuity and of change, *Journal of Applied Psychology*, Vol. 102 No. 3, pp. 356-374.
- Kappes, A., Singmann, H. and Oettingen, G. (2012), Mental contrasting instigates goal pursuit by linking obstacles of reality with instrumental behavior, *Journal of Experimental Social Psychology*, Vol. 48 No. 4, pp. 811-818.
- Kirca, A.M., Malouff, J. and Meynadier, J. (2023), The effect of expressed Gratitude interventions on psychological wellbeing: A meta-analysis of Randomised Controlled studies, *International Journal of Applied Positive Psychology*, Vol. 8 No. 1, pp. 63-86.
- Kleine, A.K., Rudolph, C.W. and Zacher, H. (2019), Thriving at work: A meta-analysis, *Journal of Organizational Behavior*, Vol. 40 No. 9-10, pp. 973-999.
- Kluger, A.N. and Itzhakov, G. (2022), The power of listening at work, *Annual Review of Organizational Psychology and Organizational Behavior*, Vol. 9 No. 1, pp. 121-146.
- Lakens, D. (2013), Calculating and reporting effect sizes to facilitate cumulative science: A practical primer for t-tests and ANOVAs, *Frontiers in Psychology*, 4, 863.
- Lantz, A., Hansen, N. K., & Antoni, C. H. (2015). Participative work design in lean production: A strategy for dissolving the paradox between standardized work and team proactivity by stimulating team learning? , *Journal of Workplace Learning*,

27(1), 19-33.

Lin, X., Luan, Y., Zhao, K., Zhao, T. and Zhao, G. (2022), The antecedents and outcomes of career optimism: a meta-analysis, *Career Development International*, Vol. 27 No. 4, pp. 409-432.

Livini, R., Gunnesch-Luca, G. and Iliescu, D. (2021), Research self-efficacy: A meta-analysis, *Educational Psychologist*, Vol. 56 No. 3, pp. 215-242.

Loghman, S., Quinn, M., Dawkins, S., Woods, M., Sharma, S.O. and Scott, J. (2023), A comprehensive meta-analyses of the nomological network of psychological capital (PsyCap), *Journal of Leadership & Organizational Studies*, Vol. 30 No. 1, pp. 108-128.

Loghman, S., Ramirez-Perez, M., Bohle, P. and Martin, A. (2025), A comprehensive meta-analysis of the impact of intervention programmes on psychological capital development: post-intervention and longer-term effects, *Personnel Review*, Vol. 54 No. 1, pp. 106-129.

Lupa, D., Virga, D., MaricuoIU, L.P. and Rusu, A. (2020), Increasing psychological capital: A pre-registered meta-analysis of controlled interventions, *Applied Psychology*, Vol. 69 No. 4, pp. 1506-1556.

Luthans, F. (2002), Positive organizational behavior: Developing and managing psychological strengths, *Academy of Management Perspectives*, Vol. 16 No. 1, pp. 57-72.

Luthans, F. and Youssef-Morgan, C.M. (2017), Psychological capital: An evidence-based positive approach, *Annual Review of Organizational Psychology and Organizational Behavior*, Vol. 4 No. 1, pp. 339-366.

- Luthans, F., Avey, J.B. and Patera, J.L. (2008), Experimental analysis of a web-based training intervention to develop positive psychological capital, *Academy of Management Learning & Education*, Vol. 7 No. 2, pp. 209-221.
- Luthans, F., Avey, J.B., Avolio, B.J. and Peterson, S.J. (2010), The development and resulting performance impact of positive psychological capital, *Human Resource Development Quarterly*, Vol. 21 No. 1, pp. 41-67.
- Luthans, F., Youssef-Morgan, C.M. and Avolio, B.J. (2015), *Psychological Capital and Beyond*, Oxford University Press, Oxford.
- Luthans, K.W., Lebsack, S.A. and Lebsack, R.R. (2008), Positivity in healthcare: Relation of optimism to performance, *Journal of Health Organization and Management*, Vol. 22 No. 2, pp. 178-188.
- Masten, A.S. (2001), Ordinary magic: Resilience processes in development, *American Psychologist*, Vol. 56 No. 3, pp. 227-239.
- Magwegwe, T. (2024). Job demands, workplace anxiety and psychological capital: Implications for human resource management practices, *SA Journal of Industrial Psychology*, 50, Article a2197.
- Nezlek, J. B. (2007), A multilevel framework for understanding relationships among traits, states, situations and behaviours, *European Journal of Personality*, 21(6), 789-810.
- Mobley, W.H., Griffeth, R.W., Hand, H.H. and Meglino, B.M. (1979), Review and conceptual analysis of the employee turnover process, *Psychological Bulletin*, Vol. 86 No. 3, pp. 493-522.
- Oettingen, G. (2014), *Rethinking Positive Thinking: Inside the New Science of Motivation*, Current, New York, NY.

- Parker, S. K. (2014). Beyond motivation: Job and work design for development, health, ambidexterity, and more. *Annual Review of Psychology* 65, 661-691.
- Passmore, J. and Oades, L.G. (2014), Positive psychology techniques: Active constructive responding, *The Coaching Psychologist*, Vol. 10 No. 2, pp. 71-73.
- Peccei, R., Van De Voorde, K., & Van Veldhoven, M. (2013). HRM, well-being and performance: A theoretical and empirical review. In J. Paauwe, D. E. Guest, & P. M. Wright (Eds.), *HRM and performance: Achievements and challenges* (pp. 15-46). Wiley.
- Rasmussen, H.N., Scheier, M.F. and Greenhouse, J.B. (2009), Optimism and physical health: A meta-analytic review, *Annals of Behavioral Medicine*, Vol. 37 No. 3, pp. 239-256.
- Rechter, E., Kluger, A.N. and Nir, D. (2025), The feedforward interview: A theoretical account, *Human Resource Management Review*, Vol. 35 No. 2, Article 101061.
- Reichard, R.J., Avey, J.B., Lopez, S.J. and Dowlett, M. (2013), Having the will and finding the way: A review and meta-analysis of hope at work, *Journal of Positive Psychology*, Vol. 8 No. 4, pp. 292-304.
- Rich, G.A. (1999), Salesperson optimism: Can sales managers enhance it and so what if they do?, *Journal of Marketing Theory and Practice*, Vol. 7 No. 1, pp. 53-63.
- Sadri, G. and Robertson, I.T. (1993), Self-efficacy and work-related behaviour: A review and meta-analysis, *Applied Psychology: An International Review*, Vol. 42 No. 2, pp. 139-152.
- Salanova, M. and Ortega-Maldonado, A. (2019), Psychological capital development in organizations: An integrative review of evidence-based intervention programs, in

- van Zyl, L.E. and Rothmann, S. (Eds), *Positive Psychological Intervention Design and Protocols for Multi-cultural Contexts*, Springer, pp. 81-102.
- Schneider, S.L. (2001), In search of realistic optimism: Meaning, knowledge, and warm fuzziness, *American Psychologist*, Vol. 56 No. 3, pp. 250-263.
- Seligman, M.E.P. (1998), *Learned Optimism*, Pocket Books, New York.
- Sjöberg, A., & Sverke, M. (2000). The interactive effect of job involvement and organizational commitment on job turnover revisited: A note on the mediating role of turnover intentions, *Scandinavian Journal of Psychology*, 41, 247-252.
- Snyder, C.R. (Ed.) (2000), *Handbook of Hope: Theory, Measures, and Applications*, Academic Press, San Diego.
- Stajkovic, A. and Luthans, F. (1998), Self-efficacy and work-related performance: A meta-analysis, *Psychological Bulletin*, Vol. 124 No. 2, pp. 240-261.
- Stajkovic, A.D., Lee, D. and Nyberg, A. (2009), Collective efficacy, group potency, and group performance: Meta-analysis of their relationships, and test of a mediation model, *Journal of Applied Psychology*, Vol. 94 No. 3, pp. 814-828.
- Steel, R.P. and Ovalle, N.K. (1984), A review and meta-analysis of research on the relationship between behavioral intentions and employee turnover, *Journal of Applied Psychology*, Vol. 69 No. 4, pp. 673-686.
- Troy, A.S., Willroth, E.C., Shallcross, A.J., Giuliani, N.R., Gross, J.J. and Mauss, I.B. (2023), Psychological resilience: An affect-regulation framework, *Annual Review of Psychology*, Vol. 74, pp. 547-576.
- Van Zyl, L.E., Roll, L.C., Stander, M.W. and Richter, S. (2020), Positive psychological coaching definitions and models: a systematic literature review, *Frontiers in*

Psychology, Vol. 11, Article 793.

Wang, G., Wang, Y. and Gai, X. (2021), A meta-analysis of the effects of mental contrasting with implementation intentions on goal attainment, *Frontiers in Psychology*, Vol. 12, Article 565202.

Weiss, H.M. (2002), Deconstructing job satisfaction: Separating evaluations, beliefs and affective experiences, *Human Resource Management Review*, Vol. 12 No. 2, pp. 173-194.

Wickham, H. (2016). *ggplot2: Elegant graphics for data analysis*, Springer.

Wickham, H., François, R., Henry, L., and Müller, K. (2023). *dplyr: A grammar of data manipulation* (R package version 1.1.3) [Computer software] ,  
<https://CRAN.R-project.org/package=dplyr>

Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a job: Revisioning employees as active crafters of their work. *Academy of Management Review*, 26(2), 179-201.

**Table 1**

*Means, Standard Deviations, and Cohen's d for Psychological Capital, Job Satisfaction, and Intention to Quit at Time 1 and Time 2*

Factor	Control			Intervention		
	T1 <i>M (SD)</i>	T2 <i>M (SD)</i>	<i>d</i>	T1 <i>M (SD)</i>	T2 <i>M (SD)</i>	<i>d</i>
PsyCap	3.64 (0.47)	3.65 (0.45)	.02	3.73 (0.42)	4.06 (0.35)	.95
Job Satisfaction	4.03 (0.98)	4.01 (0.99)	.02	4.21 (0.83)	4.60 (0.60)	.63
Intention to Quit	2.09 (1.30)	2.33 (1.41)	.22	1.73 (1.08)	1.41 (0.90)	.40

*Note.* T1 = Time 1; T2 = Time 2; *M* = mean; *SD* = standard deviation. Cohen's *d* for repeated measures was calculated using the mean difference and a standard deviation adjusted for pre-post correlation and unequal variances (Lakens, 2013).

**Table 2**

*Fixed-Effect Estimates From the Multilevel Models With Intraclass Correlation Coefficients, 95% Confidence Intervals, and p Values*

Outcome	Effect	<i>b</i>	<i>SE</i>	<i>t</i>	95% CI	<i>p</i>
PsyCap	Intercept	3.64	0.06	60.17	[3.52, 3.76]	< .001
	Group (Intervention)	0.09	0.09	1.02	[-0.09, 0.27]	n.s.
	Time (T2)	0.01	0.05	0.16	[-0.09, 0.11]	n.s.
	Group × Time	0.32	0.07	4.35	[0.18, 0.46]	< .001
Job Satisfaction	Intercept	4.03	0.12	32.93	[3.79, 4.27]	< .001
	Group (Intervention)	0.19	0.17	1.08	[-0.14, 0.52]	n.s.
	Time (T2)	-0.01	0.10	-0.14	[-0.21, 0.19]	n.s.
	Group × Time	0.41	0.14	2.90	[0.14, 0.68]	< .01
Intention to Quit	Intercept	2.09	0.17	12.44	[1.76, 2.42]	< .001
	Group (Intervention)	-0.36	0.24	-1.51	[-0.83, 0.11]	n.s.
	Time (T2)	0.24	0.13	1.81	[-0.01, 0.49]	n.s.
	Group × Time	-0.57	0.19	-3.02	[-0.94, -0.20]	< .01

*Note.* ICC = .63 for PsyCap, .67 for job satisfaction, and .69 for intention to quit. ICC values indicate the proportion of variance attributable to between-person differences. n.s. = not significant.

